

2010 NY State Agricultural Experiment Station Research and Cornell University Research and Extension Combined Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

Cornell University Executive Summary

Cornell University Agricultural Experiment Station

The Cornell University Agricultural Experiment Station (CUAES) has supported science that serves society since its beginning in 1879. We engender and apply research-based knowledge that;

- Advances agriculture and food systems.
- Improves the environment or mitigates environmental impacts.
- Increase food safety and nutrition.
- Advances the health and welfare of our citizenry.
- Encourages social, economic, and community development and values.

CUAES has two separate but related functions. We administer a portfolio of research and integrated research-extension projects financed with federal formula grants. This encompasses more than 200 ongoing projects. We also operate world-class research facilities throughout New York State on behalf of Cornell University's College of Agriculture and Life Sciences.

Our Cornell partners include the Colleges of Agriculture and Life Sciences (CALS), Human Ecology (CHE), Veterinary Medicine (CVM), Division of Nutritional Sciences (DNS), Cornell Cooperative Extension (CCE), and the New York State Agricultural Experiment Station (NYSAES). Funded research represents 26 different departments in CALS, CHE, CVE, and DNS.

Our NIFA-federal formula funded projects are awarded through an internal peer review, competitive process. Additionally, our stakeholder review system in which external stakeholders rate proposals for relevancy ensures federal formula funds are directed to projects that address pressing societal needs for maximum impact. Stakeholders also help align local issues with national priorities, attending to the interests of New York's citizens within the broader context of national issues.

For example, research in biomass production, climate science and agriculture, watershed management, healthy behavior in teenagers, and food handling -- to name but a few projects with statewide relevance -- are consistent with the broad priorities established by the National Institute for Food and Agriculture on food security, sustainable energy, food safety, climate change, obesity and nutrition.

The impact narratives in this report demonstrate the range of projects we manage via formula funds to support NIFA's goals.

Federal Formula Grant Facts for 2010:

- We manage upward of \$5.3 million in federal Hatch grants.

- Most research and integrated project grants run three years, while multi-state run five--meaning each year we distribute approximately \$1.5 million to new, peer-reviewed, competitive projects.
- The breakdown in 2010:

Food security: 54.8%
Sustainable energy: 3.7%
Food safety: 7.1%
Climate change: 14.8%
Obesity and nutrition: 7.5%
Youth, family, and community: 12.0%

Although our internal administrative operations budget is partly supported by federal formula funds, state and college monies largely fund the farms, greenhouses and facilities foundational to our research and extension.

Operations Facts:

- Our operating budget is \$2.5 million.
- 54 full-time staff include 47 in operations and 7 in administration.
- We operate seven farms with agricultural production and forest acreage across the state, from Willsboro on Lake Champlain to Long Island on the Atlantic Seaboard.
 - Our campus facilities include 155,000 square feet of greenhouse space--the largest noncommercial greenhouse complex in the state--plus research laboratories and growth chambers.
 - Every aspect of our operation, from staff development to forest management to farm equipment--is viewed through the lens of environmental sustainability.

Federal formula grants are an essential element of Cornell University's research portfolio. They build capacity and support applied research programs that benefit not only New Yorkers but the nation's citizens as well.

New York State Agricultural Experiment Station

The focus of both research and extension programs at NYSAES is on the production, protection, and processing of horticulture food crops, turf and hybrid willow for renewable energy. The interests of the research scientists range from applied to basic science including biotechnology, with frequent cooperation between basic and applied scientists and among scientists in other disciplines. Research and extension faculty work closely with members of the food and agricultural communities and encourage their graduate students and other visiting scholars to participate in this important activity. Several of the faculty members also teach graduate and undergraduate courses in Ithaca. The bare facts about the NYSAES follow:

- NYSAES was established in 1880, making it the sixth oldest agricultural experiment station in the United States.
- The budget is approximately \$29.0 million; \$11.6 million is funded through SUNY's base budget (year 2000 figures).
- Currently, 232 staff and 46 professors (11.8, 28.8, 3.8 and 3.3 FTEs in extension, research teaching and administration, respectively) are employed .
- At any one time, 25-90 graduate students are conducting Ph.D and MS.
- At any one time, there are around 15 visiting scientists, 10 postdocs, 20 research associates and 6 extension associates.
- There are four academic departments Horticulture, Plant Pathology and Plant-Microbe Biology, Entomology, and Food Science and Technology, all with faculty members in Geneva and Ithaca. The

focus is on improving the genetics, cultivation, protection, post-harvest handling, and processing of fruit and vegetable crops.

- Support services are provided by the following units: the CALS IT, Lee Library, CALS Communications Services, Buildings and Properties, and the Field Research Unit.
- Two pilot plants provide opportunities for entrepreneurs, processors, and wine, beer, and cider makers to add value to New York State's raw products: the Fruit & Vegetable Processing Pilot Plant, and the Vinification & Brewing Technology Laboratory.
- The Northeast Center for Food Entrepreneurship (NECFE), at the NY Food Venture Center at Geneva provides comprehensive assistance to beginning and established food entrepreneurs, thus promoting sustainable economic development of rural communities.
- The NYSAES campus includes U.S. Department of Agriculture's Plant Genetic Resources Unit (PGRU), and Grape Genetics Resources Unit (GGRU), responsible for the U.S. collection of apple, sour cherry and cold-hardy grapes and selected seed-propagated crops, such as onion, garlic, broccoli, cabbage and winter squash and for the national program on grape genetics and genomics, respectively..
- NYSAES administers a research/extension laboratory in the Hudson Valley at Highland, with one professor, two Sr. Extension Associates and support personnel. It also administers the Cornell Lake Erie Research and Extension Laboratory in Portland, New York, where a Senior Research Associate and staff work collaboratively with Extension Associates in New York State Integrated Pest Management and Cornell Cooperative Extension and faculty from Ithaca and Geneva on a range of research programs important to grape growers in the Lake Erie Region and throughout New York State. A Penn State University Extension Associate with responsibility for farm management is housed at CLEREL and works as part of the CLEREL team.
- The central Geneva campus consists of 20 major buildings, several smaller buildings for farm machinery storage and similar purposes, and 3 houses with rooms rented to graduate students, visiting scientists, and postdocs.
- The station has eleven farms for experimental plot work close to the Geneva campus with a total of 870 acres. There is also one acre of glasshouse space on the campus.

Programs at Geneva cover the continuum from fundamental to applied research, to extension and outreach for diverse stakeholder groups. A blend of classical methodologies and cutting-edge technologies is utilized to accomplish the mission. Cooperative efforts in research, extension and teaching with faculty on the Ithaca campus are common, and are facilitated by distance learning technologies. Many faculty work closely with county and regional extension personnel throughout the state.

Fruit and vegetable crops are a valuable part of the New York agricultural economy, and the value-added benefit of processed products increases their worth. Growing horticultural crops is technically complex because of many factors, including: the perennial nature of some crops; the consumers' demand for cosmetically perfect fresh-market produce; and the public's perception that some methods used to control diseases and pests pose risks to the environment, farm workers, and consumers. In addition, competition from other regions of the U.S. and from other countries poses challenges to this segment of New York's agricultural economy. Other challenges exist for processors including disposal of processing waste in an environmentally acceptable manner.

NYSAES has a strong commitment to strengthening the state's fruit and vegetable industries from 'the farm to the fork'. We are continually reminded of the importance of an adequate and safe supply of fruits and vegetables in the human diet. The changing complexity of agriculture and consumer demands present challenges to crop and food product production that accentuate the continual need for research, extension and teaching at NYSAES.

While research and extension programs in Geneva have addressed global food security and hunger issues over many decades, the New York State Agricultural Experiment Station at Cornell is also especially well positioned to address other challenges identified as high priorities by the National Institute for Food and Agriculture.

Food Safety

NYSAES food scientists and plant pathologists are leaders in collaborative efforts with Cornell Cooperative Extension and fruit and vegetable growers to improve the safety of fresh fruits and vegetables through the development of detection systems for microbial contaminants and through the implementation of Good Agricultural Practices. Food safety is also a major part of the curriculum for third and fourth graders in the Elementary Science Outreach Program, a partnership between NYSAES and the Geneva City School District.

Sustainable Energy

In 2009, the Department of Horticultural Sciences at NYSAES hired a new faculty member who is focusing on opportunities to grow dedicated bioenergy crops on more than 1 million acres of marginal or underutilized land in New York State and across regions of the Upper Midwest and Southern Canada. Fast-growing shrub willow is a sustainable perennial crop very well suited for this purpose. The willow breeding program in Geneva supports expansion of the commercial willow crop enterprise with new, improved varieties. NYSAES will also play a lead role in a project to have the willow genome sequenced by the US Dept. of Energy Joint Genome Initiative, providing a database of genetic information to speed the breeding program and expand our understanding of woody plant biology.

Climate Change

NYSAES faculty members addresses issues associated with climate change on different fronts. Plant breeders are developing new fruit and vegetable varieties that will be adapted to the changing environment and will be critical for future food production. Changing climates can also be conducive for establishment of new invasive insect pests and diseases. Faculty members are monitoring several serious invasive species that include Plum Pox virus that destroys stone fruit orchards and the Swede Midge that is detrimental to cabbage and related crops. .

Global Food Security and Hunger

To ensure a safe and adequate food supply it is critical to develop the most effective and environmentally sound methods for controlling insect pests and diseases. NYSAES scientists develop effective strategies that allow producers to employ sustainable means, including organic management practices, for controlling pests and diseases. This includes research for understanding pathogen and pest biology, host susceptibility and the impacts of environmental conditions on their development. Strategies for detecting and managing pesticide resistance are also developed.

Cornell Cooperative Extension

The Cornell Cooperative Extension educational system:

- Has an Association in every county in the state and an office in New York City. (In three instances, an Association covers more than one county.)
- Employs 1,400 staff and educators statewide. Local employees work for their CCE Associations, each of which is governed by a volunteer Board of Directors.
- Deploys some 50 specialists to carry out regional and statewide Extension programming in such areas as Integrated Pest Management and Fruit, Vegetable, and Field Crop Production and Management.
- Includes 40,000 volunteers who participate annually in CCE programs. Volunteer roles vary from advising and planning to teaching and mentoring. Many volunteers are trained to help carry out

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educational activities.

- Partners with approximately 200 faculty who have formal Extension work within their academic responsibilities, primarily in the College of Agriculture and Life Sciences and the College of Human Ecology.
- Engages a program development process that relies heavily upon local citizen input to identify issues of local importance. Local educators connect these needs with faculty resources. Often research is informed by the two-way flow of information and experience.
- Collaborates with thousands of organizations, agencies, institutions, and business interests. It is a powerful network that incubates positive community change and moves on to the next issue once sustainable solutions are established.
- Cornell Cooperative Extension's educational system, which includes 55 distance learning centers across New York State, is fully equipped to deliver events and instruction to remote audiences. These learning centers serve as a portal to Cornell University and other universities in the national land grant system.

Cornell Cooperative Extension Program Areas

4-H Youth Development: Building tomorrow's leaders

Healthy children and youth need knowledge, skills, and support to reach their potential as capable, competent, and caring citizens. Cornell Cooperative Extension's 4-H youth development programs engage young people and their families in the work of Cornell University and the land grant university system, teach knowledge and life skills that enhance quality of life, and create opportunities for positive youth development.

In classrooms, after school, and in community clubs and camp settings, 4-H youth learn by doing, and participate in practical, real life experiences that encourage them to experiment, innovate, and think independently.

In 2009, more than 300,000 youth from urban, suburban, and rural communities across New York joined in the 4-H experience and were assisted by more than 17,700 volunteers. Major 4-H programs provide opportunities in science and technology, youth community action, and healthy living. Program work teams provide up-to-date resources and support professional development needs of county educators working with youth in local settings.

NIFA Priority Areas Addressed:

- Childhood Obesity
- Sustainable Energy

Agriculture & Food Systems: Maximizing the value of agricultural and natural resources

Agriculture and food systems must be efficient and profitable to remain viable and benefit the quality of life for individuals, families, and communities. Cornell Cooperative Extension's agriculture and food systems programs address the needs of New Yorkers by promoting sustainability, environmental stewardship, a safe, reliable, and healthy food supply, renewable energy, recreation, and agri-tourism.

Cornell Cooperative Extension offers agricultural programs and resources in dairy and livestock, fruits, vegetables, viticulture and enology, field crops, nutrient management, food safety, and farm business economics and policy. Regional specialists and agriculture teams develop resources for small and large farms, beginning and established farmers, and commodity and specialty producer groups.

NIFA Priority Areas Addressed:

- Global Food Security
- Climate Change
- Sustainable Energy
- Food Safety

Community and Economic Vitality: Addressing quality of life, social cohesion, ecological integrity, and economic opportunity Education that incorporates data and research can empower residents and communities to realize increased prosperity and self-sufficiency. Cornell Cooperative Extension's community and economic vitality programs seek to build the capacity of local leaders and communities to direct their own futures as they negotiate changes in economic structures, climate change, energy sustainability, transportation and residential patterns, demographics, communication technologies, and other challenges and opportunities that effect communities.

Cornell Cooperative Extension educators help residents gather and synthesize knowledge, develop decision-making skills, and improve the use of community resources.

Cornell Cooperative Extension associations design community and economic development programming based on the context, issues, and needs of their communities. Community and economic vitality programs include land use training, inter-municipal collaboration on shared municipal services, leadership training, agroforestry workforce development, local food regional economic impact strategies, not-for-profit development, sustainable community-based initiatives, and small business agricultural education.

These and other programs help communities forge strong partnerships with campus faculty and staff, local government officials, community and economic developers, not-for-profit directors, community colleges, planners, policymakers, and informal leaders.

NIFA Priority Areas Addressed:

- Global Food Security and Hunger
- Climate Change
- Sustainable Energy

Environment & Natural Resources: Helping communities preserve and protect the environment

In order to sustain the environmental resources that are needed for healthy and pleasing communities, human beings must balance activities and needs with their associated impact. Cornell Cooperative Extension's environment and natural resources programs aim to develop knowledge that will help individuals and communities make decisions and take actions that preserve and enhance environmental quality and, therefore, human health.

Environment and natural resources programs consist of water resources, agricultural environmental management, including manure management, waste management, land use management, forestry, wildlife habitat and human interactions, fisheries, lawns and turf, invasive species, and energy, both conservation and renewable energy sources.

Cornell Cooperative Extension environment and natural resources programs serve the general public, resource managers, such as foresters, water and wastewater treatment plant operators, and farmers, and policy makers.

NIFA Priority Areas Addressed:

- Climate Change
- Sustainable Energy

Nutrition and Healthy Families: Supporting healthy and active communities

Human health, well-being, and relationships are vital to the interests of communities. Cornell Cooperative Extension promotes knowledge, skills, and behavior change that support human development and welfare across social, emotional, physical, and psychological dimensions. Cornell Cooperative Extension's nutrition, health, and resource management programs address the interaction between individuals and the world around them to help people achieve their potential, solve problems, and strengthen their families and communities. Cornell Cooperative Extension educators use multidisciplinary academic approaches and apply varied cultural, social, and economic perspectives to provide learner-focused education.

Nutrition and health programs work to reduce the incidence of childhood obesity and alleviate chronic disease prevalence through improved nutrition and the promotion of healthy lifestyles. Programs foster developmentally appropriate parenting and child care as well as elder care, address environmental hazards, and support education in financial literacy, health care issues, and energy costs and conservation.

NIFA Priority Areas Addressed:

- Global Food Security
- Childhood Obesity
- Food Safety

Reporting Notes

A variety of data sources and documentation procedures were used to generate this report, primarily annual reporting structures. For extension, the primary sources were system-wide annual accountability reports and fiscal and personnel accounting records. Extension annual reports include participation data, reports against our approved performance indicators, and program impact statements. For research, The CRIS reporting system, annual faculty activity reports, and fiscal and personnel accounting records were the primary sources. These extension and research data are supplemented by targeted evaluation studies in selected areas.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	1150.0	0.0	1500.0	0.0
Actual	1467.1	0.0	86.6	0.0

II. Merit Review Process

1. The Merit Review Process that was Employed for this year

- Combined External and Internal University External Non-University Panel
- Expert Peer Review

2. Brief Explanation

We use one integrated process for merit review for applied research and extension projects, including integrated and multistate activities. Key elements of the process are described here followed by statistics from the 2010 proposal cycle.

Review Process (Research Projects and Extension Projects with Designated Funding)

1. Principal investigators are asked to consult program priorities (established as outlined in the stakeholder involvement section) and develop short pre-proposals for new or revised projects funded by Federal Formula Funds.

2. Pre-proposals are reviewed for purpose and relevancy by advisory Program Councils (see stakeholder involvement section) and other external stakeholders, the principal investigator's department chair, Extension Program Associate/Assistant Directors, and the Experiment Station directorates (Ithaca and Geneva). Reviews are submitted via a secure website.

For research proposals:

3. Pre-proposals are accepted/rejected; Principal Investigators develop accepted preproposals into full proposals.

4. The Department Chair recommends two or three peer reviewers to the Director's Office.

5. The Director's Office obtains the necessary reviews in accordance with CSREES rules using standard format.

6. Changes suggested by the peer reviewer are conveyed to the Principal Investigator. Peer reviewer names are not revealed to the Principal Investigator.

7. The revised proposal, with required CRIS forms, is submitted to the Director's Office.

8. The Director's Office submits the package to CSREES along with an attached statement certifying the peer review was completed.

9. Reviews are kept on file in the Director's Office.

10. The Director's Office attaches a statement to the proposal and sends this with the proposal and Form 10 to the CALS Research Office.

11. After approval by CSREES, funds are allocated to the appropriate research account.

For extension proposals:

3. Extension Program Directors rank/recommend extension preproposals.

4. Extension Program Directors meet with Experiment Station (Ithaca and Geneva) staff to discuss potential R-E linkages among extension preproposals.

5. Extension Program Directors finalize Smith-Lever funding recommendations and communicate decisions and needed modifications.

Cornell Review Criteria

1. Anticipated significance of results relative to current priority needs or opportunities
2. Scientific merit of objectives
3. Clarity of objectives
4. Appropriate methodology
5. Feasibility of attaining objectives
6. Accomplishment during preceding project (for revisions)
7. Research performance and competence of investigator(s)

8. Relevance of the proposed work to regional or national goals
9. Level of research-extension integration

For ongoing extension work not captured in current funded projects, we rely on our structure of Program Council and Program Work Teams for input and conduct regular program conferences with academic units to review program progress and direction. For FY10, a total of 117 preproposals were submitted to the two Experiment Stations and to Cooperative Extension of which 90 were funded.

III. Stakeholder Input

1. Actions taken to seek stakeholder input that encouraged their participation

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Survey of the general public
- Survey specifically with non-traditional groups
- Survey specifically with non-traditional individuals
- Survey of selected individuals from the general public

Brief explanation.

Gaining stakeholder input and encouraging stakeholder participation is a system-wide expectation of all levels and units. Across the system, all of the stakeholder participation methods listed are employed, no single unit uses them all.

At the state level, we combined five separate statewide program councils into a single multidisciplinary council during 2010. Membership is intentionally monitored and updated to ensure involvement and ties to traditional and non-traditional constituents and established and emerging partnerships. The council provides guidance for CCE, CUAES and NYSAES by setting broad priorities for applied research and extension programming.

In addition, we have 26 active Program Work Teams comprised of extension educators, faculty, and stakeholders who work together to develop, implement and evaluate priority programs. A new team was added in FY10 focused on climate change. More than 350 individuals were involved in the work of these teams in 2010. Since 2001, forty-one (47) program work teams have been authorized and supported to develop and deliver integrated applied research and extension programming across the state. The fact that more than 20 have completed their work and "decommissioned" indicates they are serving as intended, as a flexible program development mechanism responsive to needs. PWTs are expected to nurture research-extension integration, to encourage campus-field interactions and collaborations, to take multi-disciplinary approaches, to evaluate their efforts, and to involve their external members in all aspects of their work.

Beyond this state-level program development and stakeholder input structure/process, each of Cornell Cooperative Extension's 55 county extension associations continued to work closely with

stakeholders in their counties via participation in their local governance structures, i.e. board of directors, and program guidance structures, i.e., advisory committee structures. Formal advisory committees are also used to guide New York City Extension programs. In 2010, more than 40,000 stakeholder volunteers from all walks of life participated and assisted in the direction, priority setting, and delivery of extension programs throughout the state.

By definition, "under-represented or under-served" groups require that additional outreach and engagement steps be taken. One of the most effective strategies for gaining input and developing working relationships is by networking and partnering with organizations that do have credible relationships with target groups. Our local boards of directors and advisory committees include at least 300 such representatives statewide. On both the program councils and program work teams, we target representatives of organizations working effectively with groups with whom we should strengthen ties.

Effective involvement of youth in program determination and implementation is of particular concern. Our local advisory committees are expected to include youth members as part of the needs assessment and decision making structure. In 2010, more than 3000 youth served in governance and program delivery roles statewide.

2(A). A brief statement of the process that was used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Use Internal Focus Groups
- Use External Focus Groups
- Open Listening Sessions
- Needs Assessments
- Use Surveys

Brief explanation.

Across all levels of the system, all of the techniques listed were used; the mix of methods varied from site to site and program to program. All of our units are required to have active and diverse advisory processes and to intentionally consider audiences not currently served. Activities of our state level councils and work teams re described in other questions in this section. Needs assessments, focus groups, and use surveys are conducted at the level of individual program units as well as in our statewide plan of work process.

Extension educators are expected to submit narrative reports of efforts to engage underserved populations. For the 2010 reporting year, more than 60 such stories were submitted representing all five of our broad program areas. Example titles included: Challenges of a Multi-Cultural Workforce: Issues and Concerns, Participatory Development of an Urban Forestry Community Engagement Program, Urban Youth Farm Project, Storms and The Urban Forest: Preparedness and Response, Community Gardening in North Rockland, Relatives as Parents, Teen Action Group, Advantage After School, Science Fun with After-school Universe Curriculum, and, Hydroponics Learning Model /Grow With The Flow.

2(B). A brief statement of the process that was used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Survey of traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of traditional Stakeholder individuals
- Meeting with the general public (open meeting advertised to all)
- Meeting specifically with non-traditional groups
- Survey specifically with non-traditional groups
- Meeting specifically with non-traditional individuals
- Survey specifically with non-traditional individuals
- Meeting with invited selected individuals from the general public
- Survey of selected individuals from the general public

Brief explanation.

All of the techniques listed were used in 2010 but methods varied site to site and program to program across the system. Structures and processes for aggregating data are described in other questions in this section. The most active data gathering occurred in three venues - local advisory bodies, the program work teams, and program councils. Example outreach mechanisms include dramatic increase in use of Internet based instruction and forums at the community level directed to economic sustainability, particularly of rural communities. We continued statewide efforts begun in 2008 to provide current resources for educators regarding equal program opportunity and have done extensive participant mapping to identify opportunities to increase inclusiveness of our programs. Our Civil Rights compliance review in late 2009 provided additional guidance for connecting with diverse audiences.

3. A statement of how the input will be considered

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs
- Redirect Research Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief explanation.

The stakeholder input process for statewide program development jointly utilized by Cornell Cooperative Extension (CCE), the Cornell University Agricultural Experiment Station (CUAES), and the New York State Agricultural Experiment Station (NYSAES) was established in February 2001. The process informs federal formula funding priorities and provides project specific input on relevance and value of proposed work. In other words, our program council and program work

teams work to improve program focus, relevance, and planning activities. Members of our program councils have direct input on decisions regarding funding of current extension and research projects contributing ratings of perceived relevance. Each year, we compare funding decisions with advisory input and can confidently conclude that stakeholders are having a powerful voice in the direction of our programs. Our program council also advises the directors of CCE and CUAES on annual statewide program priorities, review Program Work Team performance and identify "gaps" in programmatic coverage. Our statewide applied research and extension priorities are updated annually, communicated to faculty and staff, and used as a primary criterion in funding decisions.

For example, for the FY10 funding year, 117 preproposals were received for research, extension, or integrated projects and 90 were funded. Traditionally, 85-90% of the pre-proposals highly rated by stakeholder- reviewers have been funded. The majority of the preproposals receiving lower ratings were not funded. Regular communications with Program Council members, especially focused on off-campus and external members, have been used each year to keep these stakeholders abreast of the decision-making process, and notified about the projects that were funded. In June 2010, all Program Council Members, representing each of the five program areas, had an opportunity to participate in an in-depth webinar focused on emerging issues and discussions about sustainable energy and climate change research and extension priorities.

Perhaps even more important is the influence of stakeholder input in determining local programming. Our county extension associations and multi-county programs are semi-autonomous, much more so than in many states. The program of work of each unit is established under guidance of stakeholders in local advisory structures and governing boards and through environmental scanning activities conducted as part of our plan of work process. Such input has immediate and specific influence on program direction and strategy.

Brief Explanation of what you learned from your Stakeholders

These are the priorities established by our program work team and council structure.

Global Food Security and Hunger

Research and extension education programs are directed toward improvement of the global food system as a whole from "farm to table" and include analyses of domestic and international policies affecting the system, food security and hunger. Programs help agricultural/horticultural businesses improve productivity and sustainability through resource management, adoption of new technologies and practices, improved marketing strategies and business management skills and by looking to alternative enterprises with emphasis on economic and environmentally sustainability. Emphases include enhancing soil resources and soil health, crop plant genomics, field evaluation of crops, reliable production guidelines, genetic improvement of animals and animal production, economics of production and farm management, integrated pest management, healthy produce, fruit and vegetable storage and facilitation of sustainable agriculture. Education complements research by encouraging farmers to grow new crop varieties and employ new production and business practices, through programs for ag sector businesses and by informing consumers about improved food products and encouraging adults to serve the foods to children. Research analyses and education also affect policies to reform governmental food-related programs. Elements of food insecurity addressed include availability of and access to food, sufficiency of food, social and cultural acceptability of food, and nutritional quality and safety of food.

Goals include:

- Boosting agricultural production in sustainable ways
- Improving global capacity to meet growing food demand

- Fostering innovation in fighting hunger by addressing food insecurity in vulnerable populations
- Assuring the long-term viability and well being of the agricultural/horticulture industry and rural communities in.
- Promoting economically and environmentally sound products and practices, and safer and healthier products.
- Assisting producers, horticulture businesses, and natural resource managers to optimize production management and improve profitability and sustainability in accordance with their goals.
- Increasing the use of sustainable practices results in improved or protected soil, air and water quality and production of high quality and safe food and fiber.
- Improving soil health and productivity, resulting in increased farm profitability and improved environmental quality.

Climate Change

Recent efforts have focused on identifying and quantifying the level of climatic disruption caused by heat-trapping greenhouse gasses and the early, measurable impact on weather patterns, geographic bioregions, and living creatures. Now, researchers are exploring the looming challenges, investigating strategies to address expected impacts, and developing new resources to reduce the human "carbon footprint" adding to greenhouse gas emissions. Three vital areas have been identified for the well-being of future generations:

- Climate science: quantifying the current trend and predicting future impact
- Adaptation: moderating expected damage and identifying potential opportunities
- Mitigation: reducing the human "carbon" footprint to slow the pace of climate change

Examples of likely mitigation needs include controlling pests, applying fertilizer and optimal planting and harvesting times. Because carbon dioxide emissions are one of the major causes of global climate change, the study of carbon sequestration is a major research emphasis. Climate change also heightens the importance of research and extension on invasive species.

These stressors to human habitability will be borne disproportionately by the most vulnerable of human populations: the poor, the old and the young. Vulnerable populations will face adaptive challenges to their new environments, with potentially far-reaching implications for health as well as for societal strategies to cope with climate change effects at both the population and policy level. Technical knowledge of climate change issues and mitigation strategies is evolving rapidly and there is much confusion and skepticism and limited climate change literacy across audiences.

Goals include:

- Reducing factors contributing to climate change at the individual, community, industry, and institutional levels
- Developing an agriculture system that maintains high productivity in the face of climate changes
- Helping producers and communities adapt to changing environments
- Sustaining economic vitality and taking advantage of emerging economic opportunities offered by climate change mitigation technologies

Sustainable Energy

Sustainable energy emphases include: Energy and Agriculture, Households and Energy, Consumers and Energy, Communities and Energy, Youth Development and Energy, and, Climate Change and Energy Literacy. The agriculture program includes development of biomass for bioenergy, design of optimum forestry and crops for bioenergy production, and production of value-

added bio-based industrial products. The program also addresses energy conservation through agricultural applications of additional energy alternatives such as wood and grass pellet fuel production, recycling of vegetable oils as biodiesel, wind and solar energy production.

The consumer and community efforts emphasize increased energy efficiency and conservation, implications of energy subsidies and conservation incentives, understanding of how local policies and practices influence energy use and conservation, and workforce and business implications of sustainable development. The relationships of waste management and energy use and costs also are of concern.

Goals include:

- Leadership in pursuing the national goal of energy independence
- Enhanced economic well being through use of locally produced and owned energy sources and/or lower cost external sources retains energy dollars within the local and state
 - Increasing sustainability of agricultural/horticulture/natural resource and supporting businesses and enhancing the financial security of individuals and families and local government operations through reduced energy costs
 - Improving the economic vitality of agricultural/natural resources and other businesses, enhancing the health of individuals and families, and increasing sustainability of local government operations through waste reduction and economical and safe management of waste.

Childhood Obesity

Childhood obesity prevention research and education are based upon an ecological approach focusing on individuals and their interaction among the multiple environments that surround them. This approach recognizes that there are inherent multiple levels of influence that affect a child's body weight. Faculty research topics include nutrition and hunger, nutrition education and behavior, built and community natural environments, promoting physical activity, healthful food availability, food product development and health care organization, services and policies.

Extension programs are designed to 1) connect research and practice, 2) result in behavior change, 3) build on the strengths of families and youth, 4) develop strong collaborations resulting in community changes for optimal health promotion and 5) provide policymakers with the knowledge to develop appropriate policies to promote healthy lifestyles. Extension programs target children, families and the community at large, are collaborative and work directly with key community organizations.

Goals include:

- Affordable, available nutritious foods
- Guidance for families to make science-based decisions about health and well-being
- Prevention of childhood overweight and reduction of long term risks for chronic disease by encouraging healthy eating and increased physical activity
- Improved community food security and healthful food-choice options

Food Safety

Food safety research and education programs serve a broad constituency including food producers, processors, distributors, retailers, commercial and institutional food service and retail establishments, consumers-both youth and adult, and research scientists. Emphases include these key food safety components: causes of microbiological contamination and microbiological

resistance, education of consumers and food safety professionals, and developing food processing and storage technologies.

The program aims to reduce the incidence of food borne illness and provide a safe food supply. Technical support for policy makers and regulators, technical assistance and timely responses to emergent and continuing state and national outbreaks and issues are included. Consumer education programs focus on safe handling and preparation of foods, conveying important practices in preventing illness along with avoiding food cross-contamination.

Goals include:

- Provide for the nutritional well-being and safety of New York State residents through helping to assure a continuous, reasonably priced supply of wholesome foods.
- Improve food safety and food-handling practices throughout the food system.
- Reduce incidence of food-borne illnesses.

Youth, Family, and Community

Youth emphases span Positive Youth Development including Life Skill Development and Science, Engineering and Technology. Family emphases include Human Development and Social Well Being, Economic Well Being, and Quality of Home and Work Environments. Community emphases include community and economic development, connecting people to the land and their environments, the agriculture/community interface, and youth community action.

Goals include:

Youth

- Enhancing youth development
- Preparing the next generation of scientists
- Youth lead healthy, satisfying, productive lives
- Youth become caring and contributing members of society enhancing the quality of life for themselves, their families, and their communities
 - Youth become life-long learners
 - Youth become knowledgeable, contributing participants in science and technology-related issues in their communities and chosen professions

Family

- Enabling vibrant and resilient communities
- Improved parenting practices that result in better child and youth outcomes
- Improved parent/care giving practices result in parents and caregivers reporting increased confidence in their roles
 - Improved financial status of targeted NYS residents
 - Improved indoor air quality in low income households resulting in better health outcomes

Community

- Better utilization of community resources to improve and sustain quality of life
- Increased local capacity for management and protection of local environmental resources
- Agriculture/horticulture/natural resource enterprises are viewed as contributing and positive elements in the community

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- Communities actively manage their environments protecting and enhancing financial, infrastructure, human, environmental, and social capitals
- Youth are community leaders making decisions and taking action on issues of public/community concern that impact their lives
- Individuals and communities experience high quality of life, social cohesion, ecological integrity, effective decision making, and new economic opportunities
- Local economies become more diversified

IV. Expenditure Summary

Institution Name: Cornell University

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
8153811	0	5112631	0

Institution Name: NY State Agricultural Experiment Station

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	1095985	0

Institution Name: Cornell University

2. Totaled Actual dollars from Planned Programs Inputs				
Extension			Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	7099769	0	5108364	0
Actual Matching	7099769	0	5108364	0
Actual All Other	0	0	0	0
Total Actual Expended	14199538	0	10216728	0

Institution Name: NY State Agricultural Experiment Station

2. Totaled Actual dollars from Planned Programs Inputs				
Extension			Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	0	0	942308	0
Actual Matching	0	0	942308	0
Actual All Other	0	0	0	0
Total Actual Expended	0	0	1884616	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous				
Carryover	0	0	0	0

V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Global Food Security and Hunger
2	Climate Change
3	Sustainable Energy
4	Childhood Obesity -- Nutrition and Childhood Obesity
5	Food Safety
6	Youth, Family, and Community
7	1.1 Agricultural and Horticultural Business Vitality
8	1.2 Viable and Sustainable Production Practices
9	1.3 Energy and Agriculture
10	1.4 The Agriculture/Community Interface
11	2.1 Connecting People to the Land and Their Environment
12	2.2 Strengthening Capacity for Community and Economic Development
13	3.1 Health, Nutrition, and Food Safety
14	3.2 Human Development and Social Well Being
15	3.3 Economic Well Being, Quality of Home and Work Environments
16	4.1 Natural Resource Management
17	4.2 Water Resources Management
18	4.3 Waste Management and Prevention
19	4.4 Consumer and Community Energy Resources
20	5.1 Youth Community Action
21	5.2 Positive Youth Development Including Life Skill Development
22	5.3 Science, Engineering and Technology Literacy

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Global Food Security and Hunger

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	5%		4%	
102	Soil, Plant, Water, Nutrient Relationships	5%		9%	
202	Plant Genetic Resources	1%		15%	
204	Plant Product Quality and Utility (Preharvest)	5%		5%	
205	Plant Management Systems	15%		4%	
211	Insects, Mites, and Other Arthropods Affecting Plants	2%		7%	
212	Pathogens and Nematodes Affecting Plants	2%		14%	
213	Weeds Affecting Plants	2%		3%	
215	Biological Control of Pests Affecting Plants	3%		3%	
216	Integrated Pest Management Systems	2%		3%	
301	Reproductive Performance of Animals	1%		5%	
302	Nutrient Utilization in Animals	6%		4%	
305	Animal Physiological Processes	2%		4%	
307	Animal Management Systems	16%		2%	
311	Animal Diseases	2%		9%	
312	External Parasites and Pests of Animals	1%		1%	
601	Economics of Agricultural Production and Farm Management	8%		3%	
602	Business Management, Finance, and Taxation	12%		2%	
604	Marketing and Distribution Practices	5%		1%	
704	Nutrition and Hunger in the Population	5%		2%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Extension	Research
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Year: 2010	1862	1890	1862	1890
	Actual	293.0	0.0	52.1

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
1419954	0	2590963	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1419954	0	2590963	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	726850	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	726850	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

This is a comprehensive program entailing a wide range of applied research activities and multiple education methods depending on context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

Multi-disciplinary, multi-institutional and collaborative program examples include: Collaborative Crops Research Program (CCRP), Cornell-Eastern Europe-Mexico International Collaborative Project in Potato

Late Blight Control (CEEM), Cornell International Institute for Food, Agriculture and Development (CIIFAD), Institute for Genomic Diversity (IGD), Institute for Global Learning, International Integrated Pest Management, International Programs Initiative for Biotechnology, International Research and Scientific Exchanges, Program in International Nutrition, Strategic World Initiative for Technology Transfer (SWIFTT), and The Essential Electronic Agricultural Library (TEEAL).

2. Brief description of the target audience

Key audiences served, directly and indirectly, in enhancing agricultural and horticultural business viability include: established producers; new and young producers, consultants and service providers, input suppliers, cooperative directors and managers, marketing firms, governmental agencies, lenders, and local/state/federal governmental leaders.

Food security and hunger programming addresses individuals and families, caregivers, nutritionists, community leaders, human service providers and food policy makers at the local, state, and national levels.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA}	{NO DATA}	{NO DATA}	{NO DATA}
Actual	157912	687715	11099	296000

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010

Plan:

Actual: 8

Patents listed

- Alfalfa - Guardsman II (Experimental No. NY 9627)
- Alfalfa - Oneida Ultra (Experimental No. NY 9144)
- Alfalfa N-R-Gee (Experimental No. NY 0231)
- Alfalfa ReGen (Experimental No. NY0131)
- Corn Organic Double Cross D2901
- Raspberry - NY00-03
- Summernut-type Moschata
- Yeast Transporters that Mediate Cadmium and Arsenic Tolerance

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
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Actual	0	0	650
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V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- (1.1a) # producers/horticulture/natural resources business persons completing education programs on business management, finance, business planning and marketing, human resource management, risk management, production economics, and business transitions.
Not reporting on this Output for this Annual Report

Output #2

Output Measure

- (1.2a)# producers/horticulture business persons completing programs to expand profitability, develop marketing options, diversify or substitute alternative products or enterprises, and/or increase operational efficiencies.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- (1.3a)# persons completing education programs on the labor needs of agriculture/horticulture businesses and and/or the needs of potential employees.
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- (1.4a)# producers, horticulture business persons, and/or natural resource managers completing education programs on existing and new production-management practices and techniques.
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- (1.5a)# producers, horticulture businesses, and/or natural resource enterprise managers completing education programs on potential environmental impacts of practices, requirements and opportunities of environmental regulations and programs, and whole farm systems.
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- (1.6a)# of children, youth, and adults completing education programs on: identifying food insecurity, how to obtain food assistance, how to balance available resources by planning food choices, and improve the sufficiency and quality of the diet.
Not reporting on this Output for this Annual Report

Output #7

Output Measure

- (1.6b)# of policy makers and citizens participating in education programs on status of food security in their communities and possible actions to promote increased food security.
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	(1.1b)# participants demonstrating knowledge or skill gains in business management, finance, business planning and marketing, human resource management, risk management, production economics, inter-generational transfer and other business transitions.
2	(1.1c)# participants documented to have applied knowledge or skills gained to strengthen existing business operations.
3	(1.1d)# participating family-owned agricultural/horticultural/natural resources businesses that plan for succession, transfer, or sale of their business.
4	(1.1e)# participants reporting improved agricultural/ horticultural business profitability attributed at least in part to program participation.
5	(1.1f)# business owners successfully completing an intergenerational transfer or other desired dispensation of their business attributed at least in part to program participation.
6	(1.2b)# participants demonstrating knowledge or skill gains related to expanding profitability, developing marketing options, diversifying or substituting alternative products or enterprises, and/or increasing operational efficiencies to solve immediate concerns.
7	(1.2c)# participants documented to have initiated one or more alternative or expanded ventures.
8	(1.2d)# participants or producer groups who adopt practices of value-added production through retaining control of their product further in the processing chain, starting their own value added business, or forming alliances.
9	(1.2e)# of new food, horticultural, and agricultural businesses and/or new enterprises within existing businesses reported by program participants and attributed at least in part to program participation.
10	(1.3b)# participants who demonstrate knowledge gains related to needs of potential employees and/or availability of qualified employees.
11	(1.3c)# participants documented to have made one or more changes in human resources practices to enhance labor availability or retention.
12	(1.3d)# producers/horticultural businesses reporting improved labor availability, performance, and/or retention of higher skilled and more valuable human resource team members attributed at least in part to program participation.
13	(1.4b)# of producers, horticulture business persons, and/or natural resource managers demonstrating knowledge/skill gains in existing/new practices and techniques; improved product handling and storage to maintain quality and food safety; and/or improving production efficiency through adoption of best management practices.
14	(1.4c)# of producers, horticulture business persons, and/or natural resource managers modifying existing practices and/or adopting new production management practices to address current issues and improve yield efficiency, consistency and/or quality.
15	(1.4d)# of producers, horticulture business persons, and/or natural resource managers who report improved ability to anticipate and respond to environmental and market variations through alternative production management strategies.
16	(1.4e)# technical assistance providers documented to have incorporated current best management practices in their recommendations.

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17	(1.4f)# of producers, horticulture business persons, and/or natural resource managers documented to have improved economic returns to agricultural business profitability and vitality resulting from enhanced production management practices.
18	(1.5b)# of producers, horticulture businesses, and/or natural resource managers demonstrating knowledge/skill gains in environmental impacts of practices, environmental regulations and programs, whole farm systems including integrated nutrient management, integrated pest management, waste management, and water protection.
19	(1.5c)# of producers, horticulture businesses, and/or natural resource managers documented to have assessed potential environmental impacts of their operations and developed and acted on plans to eliminate or minimize those concerns.
20	(1.5d)# of producers, horticulture businesses, and/or natural resource managers documented to have developed and implement nutrient management and/or waste management plans or modified existing plans to meet production and environmental goals and meet regulations.
21	(1.5e)# of producers, horticulture businesses, and/or natural resource managers documented to meet or exceed current environmental protection standards as a result of participating in relevant educational programs.
22	(1.5f)# resource managers reporting reduced environmental concerns for participating enterprises.
23	(1.6c)# of program participants who demonstrate knowledge or skill gains related to status of food security in their communities and possible actions to promote increased food security.
24	(1.6d)# of program participants who know what to do related to food insecurity problems such as how to obtain food assistance, how to balance available resources by planning food choices, and how to improve the sufficiency and quality of the diet.
25	(1.6e)# of program participants who have acted to improve their food security status.
26	(1.6f)# of participating communities that assess food insecurity and develop appropriate action plans.
27	(1.6g)# of individuals or households documented to have improved food security status.
28	(1.6h)# of participating communities reporting declines in food insecurity indicators.
29	Development of a Sensitive, Low-cost Point-of-Use Lateral Flow Assay for the Diagnosis of Johne's Disease
30	Soil Health Assessment
31	Comprehensive Swede Midge Website
32	Feed Management Program Positions Dairy Farms for Future
33	Summer Food Service Program

Outcome #1

1. Outcome Measures

(1.1b)# participants demonstrating knowledge or skill gains in business management, finance, business planning and marketing, human resource management, risk management, production economics, inter-generational transfer and other business transitions.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

(1.1c)# participants documented to have applied knowledge or skills gained to strengthen existing business operations.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	4639

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
604	Marketing and Distribution Practices

Outcome #3

1. Outcome Measures

(1.1d)# participating family-owned agricultural/horticultural/natural resources businesses that plan for succession, transfer, or sale of their business.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	227

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

Outcome #4

1. Outcome Measures

(1.1e)# participants reporting improved agricultural/ horticultural business profitability attributed at least in part to program participation.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	3706

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
604	Marketing and Distribution Practices

Outcome #5

1. Outcome Measures

(1.1f)# business owners successfully completing an intergenerational transfer or other desired dispensation of their business attributed at least in part to program participation.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	44

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

Outcome #6

1. Outcome Measures

(1.2b)# participants demonstrating knowledge or skill gains related to expanding profitability, developing marketing options, diversifying or substituting alternative products or enterprises, and/or increasing operational efficiencies to solve immediate concerns.

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

(1.2c)# participants documented to have initiated one or more alternative or expanded ventures.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	528

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
604	Marketing and Distribution Practices

Outcome #8

1. Outcome Measures

(1.2d)# participants or producer groups who adopt practices of value-added production through retaining control of their product further in the processing chain, starting their own value added business, or forming alliances.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	436

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
604	Marketing and Distribution Practices

Outcome #9

1. Outcome Measures

(1.2e)# of new food, horticultural, and agricultural businesses and/or new enterprises within existing businesses reported by program participants and attributed at least in part to program participation.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	335

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
604	Marketing and Distribution Practices

Outcome #10

1. Outcome Measures

(1.3b)# participants who demonstrate knowledge gains related to needs of potential employees and/or availability of qualified employees.

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

(1.3c)# participants documented to have made one or more changes in human resources practices to enhance labor availability or retention.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	384

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation

Outcome #12

1. Outcome Measures

(1.3d)# producers/horticultural businesses reporting improved labor availability, performance, and/or retention of higher skilled and more valuable human resource team members attributed at least in part to program participation.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	1567

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation

Outcome #13

1. Outcome Measures

(1.4b)# of producers, horticulture business persons, and/or natural resource managers demonstrating knowledge/skill gains in existing/new practices and techniques; improved product handling and storage to maintain quality and food safety; and/or improving production efficiency through adoption of best management practices.

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

(1.4c)# of producers, horticulture business persons, and/or natural resource managers modifying existing practices and/or adopting new production management practices to address current issues and improve yield efficiency, consistency and/or quality.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	5215

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
305	Animal Physiological Processes
307	Animal Management Systems
311	Animal Diseases
312	External Parasites and Pests of Animals

Outcome #15

1. Outcome Measures

(1.4d)# of producers, horticulture business persons, and/or natural resource managers who report improved ability to anticipate and respond to environmental and market variations through alternative production management strategies.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	3228

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals

- 305 Animal Physiological Processes
- 307 Animal Management Systems
- 311 Animal Diseases
- 312 External Parasites and Pests of Animals
- 604 Marketing and Distribution Practices

Outcome #16

1. Outcome Measures

(1.4e)# technical assistance providers documented to have incorporated current best management practices in their recommendations.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	1826

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants

215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
305	Animal Physiological Processes
307	Animal Management Systems
311	Animal Diseases
312	External Parasites and Pests of Animals

Outcome #17

1. Outcome Measures

(1.4f)# of producers, horticulture business persons, and/or natural resource managers documented to have improved economic returns to agricultural business profitability and vitality resulting from enhanced production management practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	2862

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)

205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
305	Animal Physiological Processes
307	Animal Management Systems
311	Animal Diseases
312	External Parasites and Pests of Animals

Outcome #18

1. Outcome Measures

(1.5b)# of producers, horticulture businesses, and/or natural resource managers demonstrating knowledge/skill gains in environmental impacts of practices, environmental regulations and programs, whole farm systems including integrated nutrient management, integrated pest management, waste management, and water protection.

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

(1.5c)# of producers, horticulture businesses, and/or natural resource managers documented to have assessed potential environmental impacts of their operations and developed and acted on plans to eliminate or minimize those concerns.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	2717

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems
302	Nutrient Utilization in Animals
307	Animal Management Systems

Outcome #20

1. Outcome Measures

(1.5d)# of producers, horticulture businesses, and/or natural resource managers documented to have developed and implement nutrient management and/or waste management plans or modified existing plans to meet production and environmental goals and meet regulations.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	827

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
302	Nutrient Utilization in Animals
307	Animal Management Systems

Outcome #21

1. Outcome Measures

(1.5e)# of producers, horticulture businesses, and/or natural resource managers documented to meet or exceed current environmental protection standards as a result of participating in relevant educational programs.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	1292

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants

216 Integrated Pest Management Systems
307 Animal Management Systems

Outcome #22

1. Outcome Measures

(1.5f)# resource managers reporting reduced environmental concerns for participating enterprises.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	66

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
215	Biological Control of Pests Affecting Plants
216	Integrated Pest Management Systems
302	Nutrient Utilization in Animals
307	Animal Management Systems

Outcome #23

1. Outcome Measures

(1.6c)# of program participants who demonstrate knowledge or skill gains related to status of food security in their communities and possible actions to promote increased food security.

Not Reporting on this Outcome Measure

Outcome #24

1. Outcome Measures

(1.6d)# of program participants who know what to do related to food insecurity problems such as how to obtain food assistance, how to balance available resources by planning food choices, and how to improve the sufficiency and quality of the diet.

Not Reporting on this Outcome Measure

Outcome #25

1. Outcome Measures

(1.6e)# of program participants who have acted to improve their food security status.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	20071

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code **Knowledge Area**
704 Nutrition and Hunger in the Population

Outcome #26

1. Outcome Measures

(1.6f)# of participating communities that assess food insecurity and develop appropriate action plans.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	87

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code **Knowledge Area**
704 Nutrition and Hunger in the Population

Outcome #27

1. Outcome Measures

(1.6g)# of individuals or households documented to have improved food security status.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	11069

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
704	Nutrition and Hunger in the Population

Outcome #28

1. Outcome Measures

(1.6h)# of participating communities reporting declines in food insecurity indicators.

Not Reporting on this Outcome Measure

Outcome #29

1. Outcome Measures

Development of a Sensitive, Low-cost Point-of-Use Lateral Flow Assay for the Diagnosis of Johne's Disease

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Johne's Disease, caused by *M. paratuberculosis* (Map), affects cattle, sheep and goats. Twenty to 40 percent of dairy herds in the US could be infected, with losses reaching \$220 million/yr. Making the diagnosis early is essential so infected animals can be culled. Yet while current diagnostic assays for Johne's result in few false-positives, their sensitivity is often less than 50 percent, meaning that many infections go undetected. Further, these tests are costly, requiring trained personnel; the turnaround time can be quite long.

What has been done

We are developing a low-cost, more sensitive lateral Map antibody assay, suitable for field use, to detect early Map infection. We will construct and optimize an assay for Map antibody binding in a dipstick format for maximum assay specificity and sensitivity. We have tested the Map antibody-specific dipstick assay for detection of anti-MAP antibody levels using sera from known Map-positive and negative cattle. We will also format the assay for detection of anti-MAP antibody levels in sheep. Finally, we will determine the performance characteristics of the MAP antibody lateral flow dipstick assay, including its specificity, sensitivity, reproducibility and stability.

Results

Having developed of a Map antibody dipstick assay, we can now evaluate it with respect to other methods as well as its performance in the hands of end-users. The outcome: a new project that will: 1) Compare the efficacy of the dipstick assay with a commercially available assay; 2) Compare its efficacy in Map-infected dairy herds in the field with the commercially available assay. The outcome of this new research could improve detection and save money for livestock farmers by providing a low cost, more sensitive, and robust assay for diagnosing Johne's disease.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
311	Animal Diseases

Outcome #30

1. Outcome Measures

Soil Health Assessment

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The intensive production of field, vegetable, and fruit crops has contributed to reduced soil health, lower crop productivity and farm profitability, and greater environmental impacts from runoff and erosion. Until now, growers have had no way to measure and assess critical factors such as aggregate stability, available water capacity, organic matter, or root health.

What has been done

The Cornell Soil Health Team's approach to improved soil management involves a combination of education and quantitative soil analyses. We established an inexpensive test for integrated soil health assessment. This soil health test allows land managers to learn about the quality of their land and provides information that can be used for the targeting of soil management practices based on actual soil constraints.

Results

This project has advanced understanding of soil health throughout the Northeast and is generating management changes on farms. The project has received international attention (notably Australia, India, South Africa, Singapore, and Jamaica) where there is interest in adopting our methodologies. We now offer a commercial soil health test that provides critical management information for farmers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships

Outcome #31

1. Outcome Measures

Comprehensive Swede Midge Website

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Swede midge is a tiny insect that attacks the growing tips of plants in the cabbage family, often rendering crops unmarketable. The pest was first detected in North America in 2000 in Ontario, Canada and was subsequently found in Niagara County, NY in 2004. Swede midge has since become a widespread pest throughout New York State, Ontario and Quebec Canada. It has also been detected in a few other states in the Northeastern, U.S., and has the potential to spread to all crucifer growing regions in North America.

What has been done

Cooperative research between Cornell University, Canadian and European researchers over the past 10 years has resulted in methods of detection and management of swede midge. Furthermore, numerous educational resources have been developed. In 2010, a comprehensive website was developed called "The Swede Midge Information Center for the U.S." and contains sections on the geographic distribution of swede midge, biology, insect detection, damage symptoms, management recommendations and resources.

Results

The website is a comprehensive resource for those who want to find answers to questions about swede midge. When a farm or gardener discovers swede midge for the first time, they are hungry for information about the pest and how to manage it. Now we can point them to a single source of information. Cornell has been the leader in swede midge research in the U.S. and is looked to as a hub of information by other states. Google analytics was set up to monitor the website site which went live at the end of June. From July 1, 2010 to November 21, 2010, visits came from 32 countries/territories. In the U.S., there were hits from 30 states.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants

Outcome #32

1. Outcome Measures

Feed Management Program Positions Dairy Farms for Future

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Dairy farming is the largest sector of the NYS agricultural industry. Nutrient management on dairy farms is a major concern and area of focus in NY, especially in sensitive watersheds like the New York City Drinking water supply and the Upper Susquehanna/Chesapeake Bay watersheds. According to research conducted by Cornell University, virtually all dairy farms in the northeast US import more nutrients than they export, with the majority of imported nutrients coming in the form of purchased feed. Precision dairy feed management can therefore yield large environmental and economic benefits to the farm and water resources. The dairy industry has needed a process to implement precision feed management on dairy farms and a model program to demonstrate impact and develop the process through field experience.

What has been done

Cornell Cooperative Extension of Delaware County (CCEDC) provided leadership in collaboration with Cornell University, local and state agencies to develop the Delaware County Precision Feed Management (PFM) Program over the last 10 years. Beginning with a small research and development project, the program has grown to a full fledged PFM implementation program that has engaged 42 farms in Delaware County in comprehensive homegrown feed management; ration management and impact quantification and documentation. On farm implementation is supported by educational programming to help farmers adopt new techniques more successfully. The CCEDC PFM program staff are presently contributing to the development of a NYS PFM process and are helping NY Natural Resources Conservation Service (NRCS) develop a process to implement the NY 592 Feed Management Standard for dairy farms.

Results

Since 2004, the Delaware County Precision Feed Management program has worked intensively with 42 dairy farms in Delaware County and over 3,800 cows (30 and 36% of the county totals respectively). The program has on average reduced manure phosphorus and nitrogen excretions 11 and 23 lbs per cow per year (42,000 and 87,000 lbs per year for all cows on the project), and has reduced farm phosphorus and nitrogen accumulations 35 and 368 lbs per cow per year on average (133,000 and 1,400,000 lbs per year for all cows respectively), an average reduction of 66%. Farms participating in the PFM program have operating expenses \$1.33 per hundredweight of milk sold lower than similar sized dairies not on the program, and they sell on average 1,400 lbs more milk their counterparts. For the average sized dairy on the PFM program, this amounts to approximately \$30,000 more profit per year. Cornell Cooperative Extension of Delaware County PFM is also assisting NYS Department of Environmental Conservation and the Upper Susquehanna Coalition in writing the dairy feed management section of the NYS Watershed Implementation Plan for the Upper Susquehanna/Chesapeake Bay watershed, and helping develop a basin wide strategy to implement PFM in this watershed.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
302	Nutrient Utilization in Animals
307	Animal Management Systems

Outcome #33

1. Outcome Measures

Summer Food Service Program

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

During the school year, over 80% of the 4,700 Poughkeepsie City School District students are

eligible to receive free and reduced-price breakfast and lunch through the School Breakfast and National School Lunch Programs, and most participate in the program. The same students who utilize the program all school year are challenged when summer arrives and school is over, as their meals are no longer readily available. The Summer Food Service Program (SFSP) provides free, nutritious meals and snacks to help children in low-income areas get the nutrition they need to learn, play, and grow, throughout the summer months when they are out of school. The Poughkeepsie City School District qualifies for the Summer Food Service Program, but unfortunately in the past this program has been underutilized due to lack of knowledge, promotion and sites for food distribution.

What has been done

Cornell Cooperative Extension of Dutchess County CCEDC and its coalition have made the Summer Food Service Program (SFSP) a priority on their annual agenda. In April the team began to brainstorm potential "sites" to recruit, as well as develop promotional methods and marketing tactics with little to no funding support. CCEDC educators reached out to the business community and its coalition members and hosted a kick off event at the Family Partnership Center to increase public knowledge of the Summer Feeding Program. Along with the promotional materials and marketing assistance for the SFSP, CCEDC and the coalition suggested potential open-site locations and were able to give direction to coalition members on how to reach out to these potential supporters.

Results

In 2008, CCEDC and its coalition including the Hunger Action Network stepped up to the challenge and reached out to the community to increase awareness of the SFSP. Approximately 22,926 meals were served. In 2009, Thanks to amazing community support and great coverage by local media, we once again increased the success of the program with approximately 26,239 meals served. In 2010, CCEDC and its team spread the word and helped Poughkeepsie Food Service serve approximately 31,000 meals this summer at 13 sites.

4. Associated Knowledge Areas

KA Code	Knowledge Area
704	Nutrition and Hunger in the Population

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Agricultural/horticultural/natural resources enterprises operate in a complex and volatile context involving susceptibility to weather extremes, changing governmental policies and regulations, competitive land uses and shifting development patterns, evolving

consumer demands, and globally influenced markets. Fundamental change is occurring in the state and regional economies within which agricultural/horticultural/natural resources enterprises operate. The specific implications of these external factors vary greatly by locale and across commodities and business forms. Population and land use changes in farming communities can lead to producer/neighbor issues that influence choice of production practices. Economic stress exacerbates issues of food insecurity and hunger and many community organizations are over burdened and unable to meet demands.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Climate Change

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
104	Protect Soil from Harmful Effects of Natural Elements	7%		1%	
111	Conservation and Efficient Use of Water	15%		1%	
112	Watershed Protection and Management	17%		18%	
125	Agroforestry	5%		3%	
132	Weather and Climate	14%		8%	
133	Pollution Prevention and Mitigation	10%		26%	
135	Aquatic and Terrestrial Wildlife	8%		13%	
136	Conservation of Biological Diversity	15%		16%	
141	Air Resource Protection and Management	2%		2%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	2%		12%	
405	Drainage and Irrigation Systems and Facilities	5%		0%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Actual	73.0	0.0	11.5	0.0

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
354988	0	842415	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
354988	0	842415	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	52249	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	52249	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

This is a comprehensive effort entailing a wide range of applied research activities and multiple education methods depending on local context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored applied research and educational efforts depending on the focus and scope of their role. Example targeted activities include a comprehensive "Northeast Climate Impacts Assessment" that details potential impacts on crops, dairy, forests, and invasive pest species for the region and the Cornell Computational Agricultural Project that is compiling daily weather data and using complex computing tools to create a user friendly website and database for farmers to help them make critical decisions as they adapt to the changing environment. Climate change is tied intimately to sustainable energy concerns. Therefore, climate change is an important element of energy literacy initiatives across all audiences.

2. Brief description of the target audience

Key audiences served, directly and indirectly include: agricultural, horticultural and natural resource producers; consultants and service providers, resource managers, governmental agencies, and local/state/federal governmental leaders and policy makers, and individual consumers.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA}	{NO DATA}	{NO DATA}	{NO DATA}
Actual	77999	5654320	34256	497440

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan:
 Actual: 2

Patents listed

Flexible, Tunable, Ultra-high Efficiency Continuous Filter System Constructed from Natural and Biodegradable, Green Materials
 High-Strength, Environmentally Friendly Building Panels

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Actual	0	0	121

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- (2.1a) # of agricultural/natural resources producers, and/or organization and business representatives completing educational programs on the causes and implications of climate change and adaptive or mitigating strategies.
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- (2.2a) # of local government officials and community leaders completing educational programs on causes and implications of climate change and adaptive or mitigating strategies.
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- (2.3a) # of adult and youth consumers, residents, and landowners completing educational programs on causes and implications of climate change and adaptive or mitigating strategies.
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- (2.4a) # of agricultural/natural resources producers, and/or organization and business representatives completing educational programs on managing water resources.
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- (2.5a) # of local government officials and community leaders completing educational programs on managing water resources and the relationship between water resources and land use management.
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- (2.6a) # of adult and youth consumers, residents, and landowners completing educational programs on water resources protection.
Not reporting on this Output for this Annual Report

Output #7

Output Measure

- (2.7a) # of agricultural/ natural resources producers, and/or organization and business representatives completing educational programs on managing natural resources, invasive species, and/or biodiversity.
Not reporting on this Output for this Annual Report

Output #8

Output Measure

- (2.8a) # of local government officials and community leaders completing educational programs on managing natural resources, invasive species, open space preservation, alternative land uses and/or biodiversity.
Not reporting on this Output for this Annual Report

Output #9

Output Measure

- (2.9a) # of adult and youth consumers, residents, and landowners completing educational programs on natural resources protection, invasive species, and/or biodiversity.
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	(2.1b) # of agricultural/natural resources producers, and/or organization and business representatives who demonstrate knowledge gains about on the causes and implications of climate change and adaptive or mitigating strategies.
2	(2.1c) # agricultural/natural resources producers, and/or organization and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to minimize their contribution to climate change and/or adapt to climate change effects.
3	(2.1d) # agricultural/natural resources producers, and/or organization and business representatives documented to have successfully adapted to climate change effects enhancing economic viability.
4	(2.2b) # of local government officials and community leaders who demonstrate knowledge gains about causes and implications of climate change and adaptive or mitigating strategies.
5	(2.2c) # of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new management practices to minimize their contribution to climate change and/or adapt to climate change effects.
6	(2.2d) # of communities documented to have established or modified public policies to minimize contribution to climate change and/or adapt to climate change effects.
7	(2.3b) # of adult and youth consumers, residents, and landowners who demonstrate knowledge gains on causes and implications of climate change and adaptive or mitigating strategies.
8	(2.3c) # of adult and youth consumers, residents, and landowners documented to have modified existing practices and/or adopted new practices to minimize their contribution to climate change and/or adapt to climate change effects.
9	(2.4b) # of agricultural/natural resources producers, and/or organization and business representatives who demonstrate knowledge gains about managing water resources.
10	(2.4c) # agricultural/natural resources producers, and/or organization and business representatives documented to have modified existing practices or technologies and/or adopted new practices to protect/enhance water resources.
11	(2.4d) # agricultural/natural resources producers, and/or organization and business representatives documented to have improved and/or protected water resources.
12	(2.5b) # of local government officials and community leaders who demonstrate knowledge gains about managing water resources and the relationship between water resources and land use management.
13	(2.5c) # of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new practices to protect/enhance water resources.
14	(2.5d) # of communities documented to have established or modified land use and development policies to enhance and protect water resources.
15	(2.6b) # of adult and youth consumers, residents, and landowners who demonstrate knowledge gains about water resources protection. (
16	(2.6c) # of adult and youth consumers, residents, and landowners documented to have modified existing practices or adopted new practices to protect/enhance water resources.

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17	(2.6d) # of adult and youth consumers, residents, and landowners documented to have successfully modified existing practices and/or adopted new practices leading to improved protection/enhancement of water resources.
18	(2.7b) # of agricultural/ natural resources producers, and/or organization and business representatives who demonstrate knowledge gains about managing natural resources, invasive species, and/or biodiversity.
19	(2.7c) # of agricultural/ natural resources producers, and/or organization and business representatives documented to have modified existing practices or technologies and/or adopted new practices to protect/enhance natural resources and/or enhance biodiversity.
20	(2.7d) # of documented instances in which implementation of natural resources management practices by agricultural/ natural resources producers, and/or organization and business representatives lead to increased open space preservation, enhanced/ protected natural resources, biodiversity, land use.
21	(2.8b) # of local government officials and community leaders who demonstrate knowledge gains about managing natural resources, invasive species, open space preservation, alternative land uses and/or biodiversity.
22	(2.8c) # of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance natural resources and/or enhance biodiversity.
23	(2.8d) # of documented instances in which implementation of natural resources management practices and/or land use policies lead to increased open space preservation, enhanced or protected natural resources, enhanced biodiversity, and/or incr. alternative land use.
24	(2.9b) # of adult and youth consumers, residents, and landowners who demonstrate knowledge gains about natural resources management, invasive species, and/or biodiversity.
25	(2.9c) # of adult and youth consumers, residents, and landowners documented to have modified existing practices and/or adopted new practices to protect/enhance natural resources and/or enhance biodiversity.
26	(2.9d) # of documented instances in which implementation of natural resources management practices by individual consumers, residents, and/or private landowners lead to increased open space preservation, enhanced or protected natural resources or enhanced biodiversity.
27	Enhancing a Network for Citizen Science Observation of the Response of Plant Phenology to Global Climate Change
28	Adirondack Brook Trout Conservation and Management in a Changing Climate
29	Addressing Climate Change
30	Controlling Invasive and Interfering Plants
31	Invasive Forest Pests Outreach Training

Outcome #1

1. Outcome Measures

(2.1b) # of agricultural/natural resources producers, and/or organization and business representatives who demonstrate knowledge gains about on the causes and implications of climate change and adaptive or mitigating strategies.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

(2.1c) # agricultural/natural resources producers, and/or organization and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to minimize their contribution to climate change and/or adapt to climate change effects.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

(2.1d) # agricultural/natural resources producers, and/or organization and business representatives documented to have successfully adapted to climate change effects enhancing economic viability.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

(2.2b) # of local government officials and community leaders who demonstrate knowledge gains about causes and implications of climate change and adaptive or mitigating strategies.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

(2.2c) # of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new management practices to minimize their contribution to climate change and/or adapt to climate change effects.

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

(2.2d) # of communities documented to have established or modified public policies to minimize contribution to climate change and/or adapt to climate change effects.

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

(2.3b) # of adult and youth consumers, residents, and landowners who demonstrate knowledge gains on causes and implications of climate change and adaptive or mitigating strategies.

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

(2.3c) # of adult and youth consumers, residents, and landowners documented to have modified existing practices and/or adopted new practices to minimize their contribution to climate change and/or adapt to climate change effects.

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

(2.4b) # of agricultural/natural resources producers, and/or organization and business representatives who demonstrate knowledge gains about managing water resources.

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

(2.4c) # agricultural/natural resources producers, and/or organization and business representatives documented to have modified existing practices or technologies and/or adopted new practices to protect/enhance water resources.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	45

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
125	Agroforestry
132	Weather and Climate
133	Pollution Prevention and Mitigation
141	Air Resource Protection and Management
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
405	Drainage and Irrigation Systems and Facilities

Outcome #11

1. Outcome Measures

(2.4d) # agricultural/natural resources producers, and/or organization and business representatives documented to have improved and/or protected water resources.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	7

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
125	Agroforestry
132	Weather and Climate
133	Pollution Prevention and Mitigation
141	Air Resource Protection and Management
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
405	Drainage and Irrigation Systems and Facilities

Outcome #12

1. Outcome Measures

(2.5b) # of local government officials and community leaders who demonstrate knowledge gains about managing water resources and the relationship between water resources and land use management.

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

(2.5c) # of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new practices to protect/enhance water resources.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	172

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
132	Weather and Climate
133	Pollution Prevention and Mitigation
405	Drainage and Irrigation Systems and Facilities

Outcome #14

1. Outcome Measures

(2.5d) # of communities documented to have established or modified land use and development policies to enhance and protect water resources.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	65

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
132	Weather and Climate
133	Pollution Prevention and Mitigation
135	Aquatic and Terrestrial Wildlife
405	Drainage and Irrigation Systems and Facilities

Outcome #15

1. Outcome Measures

(2.6b) # of adult and youth consumers, residents, and landowners who demonstrate knowledge gains about water resources protection. (

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

(2.6c) # of adult and youth consumers, residents, and landowners documented to have modified existing practices or adopted new practices to protect/enhance water resources.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	2925

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
132	Weather and Climate
405	Drainage and Irrigation Systems and Facilities

Outcome #17

1. Outcome Measures

(2.6d) # of adult and youth consumers, residents, and landowners documented to have successfully modified existing practices and/or adopted new practices leading to improved protection/enhancement of water resources.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	646

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
132	Weather and Climate
133	Pollution Prevention and Mitigation
405	Drainage and Irrigation Systems and Facilities

Outcome #18

1. Outcome Measures

(2.7b) # of agricultural/ natural resources producers, and/or organization and business representatives who demonstrate knowledge gains about managing natural resources, invasive species, and/or biodiversity.

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

(2.7c) # of agricultural/ natural resources producers, and/or organization and business representatives documented to have modified existing practices or technologies and/or adopted new practices to protect/enhance natural resources and/or enhance biodiversity.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	622

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
125	Agroforestry
132	Weather and Climate
133	Pollution Prevention and Mitigation

135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants

Outcome #20

1. Outcome Measures

(2.7d) # of documented instances in which implementation of natural resources management practices by agricultural/ natural resources producers, and/or organization and business representatives lead to increased open space preservation, enhanced/ protected natural resources, biodiversity, land use.

Not Reporting on this Outcome Measure

Outcome #21

1. Outcome Measures

(2.8b) # of local government officials and community leaders who demonstrate knowledge gains about managing natural resources, invasive species, open space preservation, alternative land uses and/or biodiversity.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	435

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code Knowledge Area

112	Watershed Protection and Management
125	Agroforestry
132	Weather and Climate
133	Pollution Prevention and Mitigation
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity

Outcome #22

1. Outcome Measures

(2.8c) # of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance natural resources and/or enhance biodiversity.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	84

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
125	Agroforestry
132	Weather and Climate
133	Pollution Prevention and Mitigation
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity

Outcome #23

1. Outcome Measures

(2.8d) # of documented instances in which implementation of natural resources management practices and/or land use policies lead to increased open space preservation, enhanced or protected natural resources, enhanced biodiversity, and/or incr. alternative land use.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	38

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
125	Agroforestry
132	Weather and Climate
133	Pollution Prevention and Mitigation
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity

Outcome #24

1. Outcome Measures

(2.9b) # of adult and youth consumers, residents, and landowners who demonstrate knowledge gains about natural resources management, invasive species, and/or biodiversity.

Not Reporting on this Outcome Measure

Outcome #25

1. Outcome Measures

(2.9c) # of adult and youth consumers, residents, and landowners documented to have modified existing practices and/or adopted new practices to protect/enhance natural resources and/or enhance biodiversity.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	6019

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
125	Agroforestry
132	Weather and Climate
133	Pollution Prevention and Mitigation
135	Aquatic and Terrestrial Wildlife

Outcome #26

1. Outcome Measures

(2.9d) # of documented instances in which implementation of natural resources management practices by individual consumers, residents, and/or private landowners lead to increased open space preservation, enhanced or protected natural resources or enhanced biodiversity.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	307

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
125	Agroforestry
132	Weather and Climate
133	Pollution Prevention and Mitigation
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity

Outcome #27

1. Outcome Measures

Enhancing a Network for Citizen Science Observation of the Response of Plant Phenology to Global Climate Change

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Annual average temperatures in the Northeast are increasing, yet we do not know the degree to which native plants in central New York will be affected. With climate changes producing warmer temperatures, it is imperative to understand whether these changing conditions could affect the local plant phenology and distribution. Yet we have little data to tease apart influences on plant phenology of factors such as the age of the plant, day length, soil conditions, pests, diseases, and competition from other plants. Data on plant performance in many different habitats and environmental situations must be gathered and analyzed. But even people with interests in environment and plants were unaware of the extent to which local plants might be vulnerable.

What has been done

Project BudBreak is the starting point for this analysis for central New York. To understand the effects warming might have on growth patterns of plants, we have created a network of trained citizen scientists who monitor the seasonal biological events influenced by the environment, including bud break, leaf emergence, flowering, the onset of fall coloration, and leaf drop. By using the power of volunteers, we can create a comprehensive set of observations for analysis of the effects. This network of citizen observers, equivalent to networks of weather spotters, can greatly increase the public's awareness of this problem through direct involvement in scientific data gathering.

Results

300 people participated in this network. Question and answer sessions conducted at 15 public workshops (total attendance was about 450 people) indicated that even those with interests in environment and plants were unaware of the extent to which local plants might be vulnerable. A second goal was to begin the data collection necessary to determine effects. It will take many years of observations to detect whether and what effects might take place. Project Budbreak sets a critical reference point. It also helps increase science literacy through direct involvement in

scientific data gathering. To that end, Project BudBreak created videos to familiarize participants with techniques for making observations, a manual to provide important background information, and an easy-to-use web site for entering observations into a common database. Because only three years of data have been collected thus far, it is too early to determine patterns?so to add value to the data and determine whether hints of trends might develop into significant patterns, we are comparing to several well-established data sets of plant observations. The first records first flowering dates of plants in the Mundy wildflower garden of the Cornell Plantations in Ithaca, NY, dating back to 1994. The second dates from 1935 and contains similar observations for flowering dates in the Leopold Nature Preserve near Madison, Wisconsin. Comparisons between these three data sets help us create a broad picture of phenological events occurring in several localities and regions and will help see if and how Project BudBreak observations relate to the broader picture.

4. Associated Knowledge Areas

KA Code	Knowledge Area
132	Weather and Climate
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants

Outcome #28

1. Outcome Measures

Adirondack Brook Trout Conservation and Management in a Changing Climate

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

How will warmer summers change conditions for coldwater Adirondack fisheries?and thus for the anglers and communities that rely upon them? The Adirondacks represent the southern edge of the geographic distribution of native lake-dwelling brook trout, meaning that these populations are increasingly threatened as the climate warms. Given the increasing evidence of changing climates and a series of unusually warm summers since 1998, concern about conserving and managing Adirondack brook trout populations is growing. Our research group has documented reduced growth and survival of brook trout larger than 14 inches in one representative Adirondack lake over the past decade.

What has been done

We will study brook trout in six lakes representative of the lake types that can sustain brook trout populations in the Adirondacks. We hope to identify ways to understand and mitigate adverse impacts of warmer water on trout reproduction, growth, and survival. We will also identify upstream locations and land uses that support refuges essential to brook trout survival and conduct a pilot project to modify lake thermal regimes by, for example, piping coldwater from upstream sources to enhance or provide coldwater summer refuges. Stakeholders include angler and conservation organizations, plus state and local agencies. Adirondack communities that rely on recreation and tourism will benefit from improved brook trout conservation and management. The lead PI recently produced a nontechnical summary of potential impacts of climate change on freshwater fisheries in the Northeast as part of an overview organized by the Union of Concerned Scientists and communicate results of this work to broad public audiences.

Results

The first two project years provided a welcome contrast in climate conditions. Summer 2009 was relatively cool; stressful thermal conditions existed for only a short time that year. By contrast, summer 2010 was consistently warm and wet. Meanwhile, a wide range of pH and ANC (acid neutralizing capacity) levels have been found in surface waters and tributaries of our study lakes. A noteworthy observation to date has been that seasonal diet composition of brook trout was generally consistent within each lake in both 2008 and 2009, even though lake-to-lake differences in diet were substantial. Percent water in tissue of brook trout showed similar seasonal trends among study lakes in both study years, indicating that brook trout build up lipid levels during a period of suitable water temperatures and food availability prior to the development of warm summer thermal conditions. Fish tissue lipid levels prior to fall also seem to provide a useful indicator of reproductive output during fall spawning. In the final project year we will confirm whether water content provides a good proxy for brook trout lipid levels by analyzing both lipids and water content from tissue samples collected in 2010. We will also implement a nondestructive bioelectrical impedance analysis (BIA) study to evaluate how food consumption influences tissue lipid levels and water content. Discussing this project with New York State Department of Environmental Conservation staff led to their evaluation of brook trout condition and reproduction in more than 60 western Adirondack lakes during summer 2009, and DEC staff plan to continue surveying brook trout condition and reproduction in several public lakes.

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
135	Aquatic and Terrestrial Wildlife

Outcome #29

1. Outcome Measures

Addressing Climate Change

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

New York has an abundance of water resources, including two Great Lakes, an additional 8,000 smaller lakes, and thousands of miles of rivers and coastal shorelines. These waters provide a critical underpinning for New York's economy, acting as the basis for transportation, drinking water supply, agriculture, fisheries, and tourism, as well as community health and well-being.

What has been done

In the past two years, a team of Cornell faculty from the Depts. of Earth and Atmospheric Sciences, Natural Resources, and Horticulture have collaborated on a NYS Energy Research and Development Authority funded, multi-university ClimAid project identifying vulnerabilities and adaptations of New York State to climate change. As part of this process, Cornell worked with the entire NYS county Cornell Cooperative Extension system to get stakeholder input on vulnerabilities and adaptations.

Results

The final report identified that NY's water resources, if properly managed, will provide the key to adaptation and a source of economic opportunity in coming years as the southern U.S. is impacted by increasing droughts. These recommendations were incorporated into Governor Paterson's Climate Action Plan ? Interim Report, recently released by the NYS Climate Action Council <http://nyclimatechange.us/InterimReport.cfm>. It is an excellent example of how Cornell's applied research and extension programs are directly contributing to sustainable policy development at the state level.

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
132	Weather and Climate

Outcome #30

1. Outcome Measures

Controlling Invasive and Interfering Plants

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Interfering and invasive plants limit the diversity of natural ecosystems and complicate the objectives of owners and managers who strive to sustain the value of rural landscapes. Subtle shifts in climate conditions rapidly shift the mix and distribution of invasive species. Failure to control interfering and invasive plants can increase the costs of management and reduce the economic and ecological values provided to owners and society. Owners and managers need to understand the applicability of vegetation management tools and the circumstances when a particular tool is effective and appropriate. Vegetation management tools include both conventional and organic techniques.

What has been done

During a three-year project that integrated applied research with extension education, more than 30 presentations were given that reached more than 1600 owners and managers that make decisions on more than 200,000 acres of woodlands. The project also involved 24 research and extension collaborators who assisted with flame weeding or herbicide research treatments, or, in addition, by hosting a Cooperative Extension educational workshop.

Results

More than 75% of 260 participants in the beech management and the flame weeding webinars indicated a moderate to significant increase in the knowledge and awareness about control strategies. More than 70% of webinar participants indicated they would implement a component of the training on their property or suggest it to a client. Field workshop participants were solicited for their suggestions on implementation strategies, with those suggestions being incorporated into on-going research to refine the feasibility of techniques.

4. Associated Knowledge Areas

KA Code	Knowledge Area
132	Weather and Climate
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants

Outcome #31

1. Outcome Measures

Invasive Forest Pests Outreach Training

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The need is to increase awareness of the Emerald Ash Borer (EAB) and Asian Longhorned Beetle (ALB) especially to those connected to the forest industry (loggers, forest landowners, foresters, mills, etc.). Recent USDA Forest Service information indicates that if New York State were to do a "present liquidation" value of NYS timber the loss in white ash alone would be around \$1.9 billion due to EAB and to sugar maple and red maple species around \$10 million due to ALB. These figures are only correlated to timber values and not to any other products or values that these species provide to the Forest of New York State. Currently, EAB has spread to 14 States and 2 Provinces and is being detected in more locations throughout NYS. As these two species lack predators, parasites and other means of controlling them.

What has been done

CCE Warren County has been involved in education and outreach of invasive forest pests species in the immediate Warren County area for several years, but this year received a grant to be able to assist in reaching other regions of the state especially in the area of trained logger certification workshops. In the course of five months outreach and education was provided to over 79,846 individuals through workshops, displays, woodswalks, etc. in the eastern part of New York State alone.

Results

More people are aware of the impact that invasive forest pests can have on the forest resources of New York State, as well as the entire northeastern northern hardwood forests. Working together with other agencies and organizations to slow the spread of the insects in order to

minimize economic impact through education and planning in order to develop control strategies will be an important step in the upcoming year. Also it is important to be able to get citizens, forest landowners and others to be aware and to begin surveying street trees, yard trees, and forestlands. The more that the awareness is developed, the more prepared communities, forest owners, and the forest industry will be for these invasive forest pests.

4. Associated Knowledge Areas

KA Code	Knowledge Area
125	Agroforestry
132	Weather and Climate

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Climate change issues play out in a complex and volatile context involving weather extremes, changing governmental policies and regulations, competitive land uses and shifting development patterns, evolving consumer demands, and globally influenced markets. The specific implications of these external factors vary greatly by locale and across commodities and business forms. Technical knowledge of climate change issues and mitigation strategies is evolving rapidly. There is growing antagonism between climate skeptics and climate scientists further polarizing the issue.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

Evaluation Results

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Sustainable Energy

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
123	Management and Sustainability of Forest Resources	18%		34%	
124	Urban Forestry	10%		12%	
401	Structures, Facilities, and General Purpose Farm Supplies	14%		0%	
402	Engineering Systems and Equipment	8%		9%	
403	Waste Disposal, Recycling, and Reuse	25%		21%	
404	Instrumentation and Control Systems	5%		8%	
605	Natural Resource and Environmental Economics	20%		16%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Actual	173.0	0.0	3.0	0.0

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
851972	0	198999	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
851972	0	198999	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	27295	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	27295	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

This is a program entailing a wide range of applied research activities and multiple education methods depending on local context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored applied research and educational efforts depending on the focus and scope of their role. In spring 2010 we launched a major statewide educational initiative based on a team of four specialists located regionally, four campus faculty in leadership roles, and several program work teams.

2. Brief description of the target audience

Agricultural/horticulture/natural resource and supporting businesses are targeted both regarding bioenergy production opportunities and information regarding alternative energy sources and conservation. Policy education efforts relate to development of agriculture and natural resources based alternative energy sources.

Consumers, property managers, and community leaders are targeted for information regarding energy supply alternatives and energy conservation options for residential, facilities, and transportation needs. Citizens, community agencies and organizations are targeted for energy-related policy education efforts particularly as related to development of alternative energy sources and the interaction between land use and energy conservation.

Residents and property owners are targeted with stewardship and waste reduction and management in their homes and on their properties. Businesses, organizations, and producers are targeted with information about reducing impacts of their operations. Local government and community leaders are targeted with information related to governmental management of waste, such as relationship between waste management and land use, effective recycling programs, and road kill management. Environmental planners and managers and technical assistance providers are targeted with in-depth information related to their audiences/constituents. Workforce development professionals receive information on energy and green economy career pathways. Teachers and youth professionals and volunteers are provided with curriculum and training. Youth are targeted with age appropriate education.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA}	{NO DATA}	{NO DATA}	{NO DATA}
Actual	26611	333575	8916	142085

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan:
 Actual: 2

Patents listed

Bromegrass-Smooth Bromegrass Peak (Experimental No. Brome PX)
 Bromegrass-Smooth Bromegrass York (Experimental No. NY 86-B)

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Actual	0	0	63

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- (3.1a) # agricultural producers and agribusiness representatives completing educational programs on the potential for development of biologically-based fuels

Not reporting on this Output for this Annual Report

Output #2

Output Measure

- (3.1b) # local and state leaders completing educational programs on the potential for development of biologically-based fuels such as biodiesel, ethanol, methane, recycled vegetable oils, space heating fuels etc.

Not reporting on this Output for this Annual Report

Output #3

Output Measure

- (3.1c) # agricultural producers and agribusiness, and natural resource business representatives completing educational programs about cropping for bioenergy production

Not reporting on this Output for this Annual Report

Output #4

Output Measure

- (3.2a) # agricultural/horticulture/ natural resource and supporting business representatives completing educational programs about the availability and pros and cons of alternative energy sources and/or about potential energy savings in operations

Not reporting on this Output for this Annual Report

Output #5

Output Measure

- (3.3a) # consumers and community leaders completing educational programs about the availability and pros and cons of alternative energy

Not reporting on this Output for this Annual Report

Output #6

Output Measure

- (3.4a) # consumers, property managers, and/or housing officials completing educational programs about potential energy cost savings, including selecting energy providers, and energy conservation strategies and measures especially related to housing and transportation

Not reporting on this Output for this Annual Report

Output #7

Output Measure

- (3.5a) # community members, leaders and officials completing education programs about the relationships between development patterns and energy use/costs

Not reporting on this Output for this Annual Report

Output #8

Output Measure

- (3.5b) # of workforce professionals, economic developers and/or entrepreneurs participating in educational programs on energy workforce and business opportunities

Not reporting on this Output for this Annual Report

Output #9

Output Measure

- (3.6a) # of agricultural/natural resources producers, and/or organization and business representatives completing educational programs on managing and reducing waste
Not reporting on this Output for this Annual Report

Output #10

Output Measure

- (3.7a) # of local government officials and community leaders completing educational programs on managing and reducing waste and the relationship between waste and land use management
Not reporting on this Output for this Annual Report

Output #11

Output Measure

- (3.8a) # of adult and youth consumers, residents, and landowners completing educational programs on waste reduction and management
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	(3.1d) # agricultural producers, agribusiness, or local and state leaders who demonstrate knowledge gains about the potential for development of biologically-based fuels
2	(3.1e) # forest owners and purchasers of forest products who demonstrate knowledge or skills gains about current markets for firewood and chips/pellets and associated cropping practices
3	(3.1f) # producers, economic development organizations and other groups who collaborate to establish bioenergy as a viable alternative crop
4	(3.1g) # of existing or new producers documented to have modified existing practices or technologies and/or adopted new production management practices for bioenergy production
5	(3.1h) # of producers, horticulture businesses and/or natural resource managers reporting that cropping for and/or use of bioenergy leads to increased economic returns to their enterprises
6	(3.2b) # agricultural/horticulture/ natural resource and supporting businesses who demonstrate knowledge or skills gains about the availability and pros and cons of alternative energy sources and/or potential energy savings in operations
7	3.2c) # of agricultural/horticultural/ natural resource businesses documented to have adopted appropriate alternative energy sources and/or energy conservation practices
8	(3.2d) # of producers/horticulture businesses/natural resource managers documented to have improved economic returns to agricultural/ horticultural business profitability and vitality resulting from adopting alternative energy sources and/or energy conservation
9	(3.3b) # consumers and/or community leaders who demonstrate knowledge or skills gains about the availability and pros and cons of alternative energy sources especially related to housing and transportation
10	(3.3c) # of consumers documented to have adopted appropriate alternative energy sources
11	(3.3d) # of consumers who report savings on energy costs attributable to adopting alternative energy sources
12	(3.4b) # consumers, property managers, and/or housing officials who demonstrate knowledge or skills gains and/or can articulate specific actions they will take related to energy cost controls and conservation measures especially related to housing and transportation
13	(3.4c) # of consumers reporting to have adopted appropriate energy cost control and/or conservation practices
14	(3.4d) # of property managers, and/or housing officials documented to have taken measures to improve energy cost control or efficiency of existing and new buildings
15	(3.4e) # of consumers who report savings on energy costs attributable to adopting energy conservation measures
16	(3.5c) # community members, leaders and officials who demonstrate knowledge gains about the relationships between development patterns and energy use/costs
17	(3.5d) # of workforce professionals, economic developers and/or entrepreneurs demonstrating knowledge gains related to energy workforce and business opportunities

18	(3.5e) # communities documented to have assessed local energy development proposals and/or the relationships between current policies and regulations and energy conservation
19	(3.5f) # of community agencies/ organizations documented to have adopted appropriate alternative energy sources
20	(3.5g) # of new workers trained and energy-related businesses established at least in part due to participation in the program
21	(3.5h) # of communities documented to have established or modified land use and development policies to promote energy conservation
22	(3.5i) # of community agencies/organizations reporting savings on energy costs attributable to adopting alternative energy sources
23	(3.5j) # of communities that report increased diversification of their local economies attributable at least in part to participation in the program
24	(3.6b) # of agricultural/natural resources producers and/or organization and business representatives who demonstrate knowledge gains about waste management and reduction
25	(3.6c) # of agricultural/ natural resources producers and/or organization and business representatives documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste
26	(3.6d) # of agricultural/ natural resources producers and/or organization and business representatives documented to have reduced costs through improved waste management practices
27	(3.7b) # of local government officials and community leaders who demonstrate knowledge gains about waste management and reduction and the relationship between waste and land use management
28	(3.7c) # of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste
29	(3.7d) # of local government officials and community leaders documented to have established or modified waste management policies to enhance and protect land and water resources and minimize energy costs
30	(3.8a) # of adult and youth consumers, residents, and landowners who demonstrate knowledge gains about waste management and reduction
31	(3.8a) # of adult and youth consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste
32	(3.8a) # of adult and youth consumers, residents, and/or landowners, documented to have reduced waste volumes and/or costs
33	Diseases of Biofuel Willows: Identification and Distribution in New York
34	Understanding the Environmental, Social, and Economic Impacts of Gas Exploration and Drilling in the Marcellus Shale
35	Renewable Energy Biomass
36	CCE/EmPower New York Energy & Money Management Education

37	Electronics and Hazardous Waste Recycling Events
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Outcome #1

1. Outcome Measures

(3.1d) # agricultural producers, agribusiness, or local and state leaders who demonstrate knowledge gains about the potential for development of biologically-based fuels

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

(3.1e) # forest owners and purchasers of forest products who demonstrate knowledge or skills gains about current markets for firewood and chips/pellets and associated cropping practices

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

(3.1f) # producers, economic development organizations and other groups who collaborate to establish bioenergy as a viable alternative crop

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	462

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
404	Instrumentation and Control Systems

Outcome #4

1. Outcome Measures

(3.1g) # of existing or new producers documented to have modified existing practices or technologies and/or adopted new production management practices for bioenergy production

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	118

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
404	Instrumentation and Control Systems
605	Natural Resource and Environmental Economics

Outcome #5

1. Outcome Measures

(3.1h) # of producers, horticulture businesses and/or natural resource managers reporting that cropping for and/or use of bioenergy leads to increased economic returns to their enterprises

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	79

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
404	Instrumentation and Control Systems

Outcome #6

1. Outcome Measures

(3.2b) # agricultural/horticulture/ natural resource and supporting businesses who demonstrate knowledge or skills gains about the availability and pros and cons of alternative energy sources and/or potential energy savings in operations

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

3.2c) # of agricultural/horticultural/ natural resource businesses documented to have adopted appropriate alternative energy sources and/or energy conservation practices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	57

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
404	Instrumentation and Control Systems

Outcome #8

1. Outcome Measures

(3.2d) # of producers/horticulture businesses/natural resource managers documented to have improved economic returns to agricultural/ horticultural business profitability and vitality resulting from adopting alternative energy sources and/or energy conservation

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	47

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
404	Instrumentation and Control Systems

Outcome #9

1. Outcome Measures

(3.3b) # consumers and/or community leaders who demonstrate knowledge or skills gains about the availability and pros and cons of alternative energy sources especially related to housing and transportation

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

(3.3c) # of consumers documented to have adopted appropriate alternative energy sources

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

(3.3d) # of consumers who report savings on energy costs attributable to adopting alternative energy sources

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

(3.4b) # consumers, property managers, and/or housing officials who demonstrate knowledge or skills gains and/or can articulate specific actions they will take related to energy cost controls and conservation measures especially related to housing and transportation

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

(3.4c) # of consumers reporting to have adopted appropriate energy cost control and/or conservation practices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	2064

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
124	Urban Forestry
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
403	Waste Disposal, Recycling, and Reuse
404	Instrumentation and Control Systems

Outcome #14

1. Outcome Measures

(3.4d) # of property managers, and/or housing officials documented to have taken measures to improve energy cost control or efficiency of existing and new buildings

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

(3.4e) # of consumers who report savings on energy costs attributable to adopting energy conservation measures

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	1645

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
124	Urban Forestry
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
403	Waste Disposal, Recycling, and Reuse
404	Instrumentation and Control Systems

Outcome #16

1. Outcome Measures

(3.5c) # community members, leaders and officials who demonstrate knowledge gains about the relationships between development patterns and energy use/costs

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

(3.5d) # of workforce professionals, economic developers and/or entrepreneurs demonstrating knowledge gains related to energy workforce and business opportunities

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

(3.5e) # communities documented to have assessed local energy development proposals and/or the relationships between current policies and regulations and energy conservation

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

(3.5f) # of community agencies/ organizations documented to have adopted appropriate alternative energy sources

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	11

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
124	Urban Forestry
403	Waste Disposal, Recycling, and Reuse

Outcome #20

1. Outcome Measures

(3.5g) # of new workers trained and energy-related businesses established at least in part due to participation in the program

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	45

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
124	Urban Forestry
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
403	Waste Disposal, Recycling, and Reuse
404	Instrumentation and Control Systems
605	Natural Resource and Environmental Economics

Outcome #21

1. Outcome Measures

(3.5h) # of communities documented to have established or modified land use and development policies to promote energy conservation

Not Reporting on this Outcome Measure

Outcome #22

1. Outcome Measures

(3.5i) # of community agencies/organizations reporting savings on energy costs attributable to adopting alternative energy sources

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	12

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
124	Urban Forestry
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
403	Waste Disposal, Recycling, and Reuse
404	Instrumentation and Control Systems

Outcome #23

1. Outcome Measures

(3.5j) # of communities that report increased diversification of their local economies attributable at least in part to participation in the program

Not Reporting on this Outcome Measure

Outcome #24

1. Outcome Measures

(3.6b) # of agricultural/natural resources producers and/or organization and business representatives who demonstrate knowledge gains about waste management and reduction

Not Reporting on this Outcome Measure

Outcome #25

1. Outcome Measures

(3.6c) # of agricultural/ natural resources producers and/or organization and business representatives documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	85

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
403	Waste Disposal, Recycling, and Reuse

Outcome #26

1. Outcome Measures

(3.6d) # of agricultural/ natural resources producers and/or organization and business representatives documented to have reduced costs through improved waste management practices

Not Reporting on this Outcome Measure

Outcome #27

1. Outcome Measures

(3.7b) # of local government officials and community leaders who demonstrate knowledge gains about waste management and reduction and the relationship between waste and land use management

Not Reporting on this Outcome Measure

Outcome #28

1. Outcome Measures

(3.7c) # of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	23

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
403	Waste Disposal, Recycling, and Reuse

Outcome #29

1. Outcome Measures

(3.7d) # of local government officials and community leaders documented to have established or modified waste management policies to enhance and protect land and water resources and minimize energy costs

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	19

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
403	Waste Disposal, Recycling, and Reuse

Outcome #30

1. Outcome Measures

(3.8a) # of adult and youth consumers, residents, and landowners who demonstrate knowledge gains about waste management and reduction

Not Reporting on this Outcome Measure

Outcome #31

1. Outcome Measures

(3.8a) # of adult and youth consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
403	Waste Disposal, Recycling, and Reuse

Outcome #32

1. Outcome Measures

(3.8a) # of adult and youth consumers, residents, and/or landowners, documented to have reduced waste volumes and/or costs

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	436

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
403	Waste Disposal, Recycling, and Reuse

Outcome #33

1. Outcome Measures

Diseases of Biofuel Willows: Identification and Distribution in New York

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As fossil fuel resources to power the world's economies move beyond peak supplies and their accessibility becomes mired in political turmoil, exploring new ways to generate power with minimal environmental impact becomes a prudent endeavor. Biofuel willows greatly exceed yields from long-rotation woodlots and is among the most promising technologies for the current century. Willow chips can be burned or converted to ethanol. Either way, they are projected to reduce air pollution and put otherwise marginally productive agricultural land to good use. For example, compared to switchgrass, willows yield approximately the same tonnage, but switchgrass has a narrow timeframe for harvest and loses quality when stored outdoors and produces 3 to 7 times as much ash. They also outproduce corn stover without the ecological consequences such as erosion. But as with other agricultural endeavors, plant pathogenic fungi could cause yield loss.

What has been done

We examined the SUNY-ESF willow biofuels trial plots in Tully, NY at monthly intervals from

September, 2008- September 2009, then expanded those surveys to commercial plantations in 2009-2010. We especially looked at collections with the highest potential for commercialization. Our aim: a comprehensive overview of major disease threats to New York willow plantations.

Results

We found few worrisome fungus- or bacteria-caused plant diseases. Among them were black canker (*Glomerella miyabeana*), willow scab (*Venturia saliciperda*), *Leucostoma* canker (*Leucostoma niveum*), and two powdery mildews (*Erysiphe adunca* and *Phyllactinia guttata*). These were common on most clones at the Tully plots, but all were at levels well below threshold. The incidence of leaf rust, however (presumably *Melampsora epitea*)was extremely variable in hybrid willow-yield trial plots in Geneva, Constableville, and Tully NY. Some selections seemed to be immune while others were so susceptible that they were completely defoliated by mid-August. Curiously, some of the most apparently rust resistant selections in the Tully evaluation trials were so susceptible at a site in Groveland, about 200 km to the west, that willows shed leaves 3 weeks earlier than normal. This makes us wonder just how variable the pathogen is in various sites in NY. Commercial willow producers in the Northeast now know of our expertise in willow pathology and are willing to send potential disease samples to our diagnostic laboratory. Growers also seem willing to accept our assertion that premature defoliation from known fungal pathogens has so little impact on yield or cold hardiness at this stage in the evolution of the industry that disease management via fungicides or cultural means is not a prudent endeavor.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources

Outcome #34

1. Outcome Measures

Understanding the Environmental, Social, and Economic Impacts of Gas Exploration and Drilling in the Marcellus Shale

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Gas drilling in the Marcellus Shale in the Southern Tier of NYS holds great interest to gas companies, landowners, and communities. Reserves are worth billions of dollars. Many landowners are being approached by gas companies and have questions about fair compensation and property impacts. Meanwhile, municipal officials and citizens are concerned about impacts on environment, watersheds, landscape, infrastructure, and tourism. Research on the socio-economic impact in drilling is urgently needed, as is a stakeholder outreach plan.

What has been done

We did case studies of 4 counties in Pennsylvania and New York document how stakeholders perceive drilling in the early stages of development show. We also presented seven "road shows" that reached about 400 people across the Southern Tier of NYS, bringing a team of Cornell faculty members and extension educators to communities to discuss environmental, community and economic development, and regulatory and leasing issues related to natural gas drilling. We presented a series of webinars to about 240 CCE educators for use in their communities and reached as many as 600 people in communities or organizations that invited us to speak to them.

Results

Our survey reached 1,461 in four counties in NY and PA. People described varying local economic impacts such as business growth, income for leaseholders, tax impacts, and potential for a state severance tax. Many were supportive of drilling if revenues were returned to the areas experiencing growth and increased demand for services. Concerns included the social impact (rapid population growth and the potential for increased inequality among residents) and the impacts on agriculture. Where development is underway, some people reported severe strain on roads and other physical infrastructure?even during the early stages. Others reported heightened concern for the negative environmental impacts of development and were especially concerned about legacy effects or environmental problems (such as acid mine drainage) that continue long after active drilling is complete. Meanwhile, we have helped communities create task forces, as well as forums that bring together task force representatives from different counties. We get ongoing feedback regarding needs for outreach from CCE educators working directly with landowners in their respective communities. We're also preparing a second-phase road show in the Southern Tier. This research allowed us to garner a \$100,000 grant from the National Science Foundation to reach and engage a broader audience in promoting public understanding so people can make their own scientifically informed decisions regarding their communities and their land.

4. Associated Knowledge Areas

KA Code	Knowledge Area
403	Waste Disposal, Recycling, and Reuse
605	Natural Resource and Environmental Economics

Outcome #35

1. Outcome Measures

Renewable Energy Biomass

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Farmers and landowners are interested in additional revenue streams, as well as positioning themselves for providing source biomass materials for emerging markets in a developing bio-economy. There also is need to provide education and skills that will be necessary for changing workforce requirements.

What has been done

To meet the needs of a community that is interested in renewable energy and workforce development, a CCE Educator proposed developing field demonstration plots located at a local school. Students could help manage, showcase and use the demonstration plots as a way to develop and supplement their own education, as well as being used as a tool to help the community learn about and see what these renewable energy crops are and how they are planted, grown and harvested. This project demonstrates how these crops can be grown on marginal land not used for food or feed crops.

Results

The Vernon Verona School (VVS) Biomass Lab has provided numerous educational opportunities for the participating students (150 students annually) to learn of biomass crops, participate in the management of the crops, as well as to help conduct research on the crops and conduct tours of the Biomass field plots for the public. Farmers and the general public have toured the plots to learn about these crops and developing markets. During Community Day events in September 2009 and October 2010, 12 field tours, (averaging 35 individuals per tour) were given by researchers, Extension personnel and students. The field demonstration plots of bio-energy crops at VVS were the feature of the National Future Farmers of America (FFA) Organization's filming to highlight the importance of research-based agricultural education in our school systems. The national filming event brought continued recognition to a stellar agricultural program that has been developing demonstration field plots of Shrub Willow, Energy Sorghum and Switchgrass.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
605	Natural Resource and Environmental Economics

Outcome #36

1. Outcome Measures

CCE/EmPower New York Energy & Money Management Education

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As energy prices increase and more households are facing increased economic challenges, there is an increased need for and interest in workshops providing low cost/no cost strategies to assist households with limited resources. The Public Service Commission determined in 2004 that an important component of the then new EmPower NY Program would be educational strategies targeting the payment challenged consumers of the 6 major utilities in NYS.

What has been done

A contract was developed with Cornell Cooperative Extension (CCE) of Tompkins County to provide statewide leadership for the development and implementation of energy and money management workshops. CCE Associations were recruited, educators provided with the curriculum and workshop materials, database of EmPower Enrollees for recruitment purposes, energy and money management toll kits for workshop attendees, and paid for conducting qualifying workshops. Recognizing that this information is useful to everyone and to avoid any stigma that only persons with low incomes were invited, it was agreed the workshops would be open to the public.

Results

During this reporting year 72 CCE Educators plus staff from partnering organizations attended the annual Inservice training and received the revised Energy Workshop curriculum. Forty-four CCE Associations plus CUCE NYC have signed Agreements to conduct these workshops in their county. As a result, 992 workshops with 12,587 attendees were conducted in this 12 month reporting period. Six hundred and five were Energy Workshops with 8,123 attendees and 387 were money management with 4,464 attendees. Since this partnership started in late 2004 more than 4481 workshops reaching just under 50,000 consumers have been conducted throughout NYS and within NYC. Data indicates that while the workshops are open to the public a significant percentage of attendees are income eligible for the EmPower NY Program. Almost all workshop

attendees indicate they would recommend the workshops to others. Many indicate they wish they had had the information sooner especially in the money management area. Feedback from attendees documents that they are using the information gained at the workshops.

4. Associated Knowledge Areas

KA Code	Knowledge Area
404	Instrumentation and Control Systems
605	Natural Resource and Environmental Economics

Outcome #37

1. Outcome Measures

Electronics and Hazardous Waste Recycling Events

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Cayuga county residents are often calling Auburn city officials and landfill staff to inquire about the proper way to recycle electronics. Many people often call asking about how to properly dispose of their hazardous waste they find around their homes. Cornell Cooperative Extension (CCE) provides yearly events for people to recycle their used electronics for low or no cost and also provides free proper disposal for household hazardous wastes. Many county residents save their hazardous waste and electronics to bring to these events.

What has been done

CCE partners with the county planning department to organize and carry out these events. Record numbers were seen this year and calls are still coming in every day. A grant from NUCOR Steel provides the funding to hire local recycling companies to unload and take the electronics from the event. This has been wildly popular and we have added an additional event to decrease the strain on staff and volunteers for each event.

Results

Cayuga Recycles events continue to grow both in participants and pounds of materials to be recycled. Spring Home Electronics and Propane Cylinder Recycling events in May 2010 together

brought in 961 residents. Tire Roundup in June 2010 brought in 268 residents with 5,000 tires being dropped off. Fall recycling Events had high participation. Fall Home Electronics and Propane Cylinder Recycling events on brought in 593 residents. More than 511 residents recycled electronics and hazardous chemicals in Fall events.

4. Associated Knowledge Areas

KA Code	Knowledge Area
403	Waste Disposal, Recycling, and Reuse

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

The interaction between natural disasters, the economy, and energy costs is well documented. Weather in particular has interrupted supplies and dramatically influences heating and cooling costs. Appropriations, public policy, and regulations directly affect the ability to pursue energy source alternatives, including bioenergy development, and to implement energy conservation alternatives, particularly for low-income households. Government regulation and policies driven by public priorities can change the circumstances of personal finances and the energy market. Public and private funders and CCE may have fewer fiscal resources and other resources to devote to energy matters although government incentives might offset that.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Childhood Obesity -- Nutrition and Childhood Obesity

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
502	New and Improved Food Products	5%		13%	
701	Nutrient Composition of Food	15%		4%	
702	Requirements and Function of Nutrients and Other Food Components	15%		25%	
703	Nutrition Education and Behavior	40%		23%	
724	Healthy Lifestyle	25%		35%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Actual	367.0	0.0	5.0	0.0

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
1774942	0	416030	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1774942	0	416030	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	40763	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	40763	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

This is a statewide multi-disciplinary extension program with emphases cutting across many content areas and audiences. Campus-based faculty and extension associates provide leadership and participate in work teams with CCE educators. Programs draw upon Cornell and other academic research. All are involved in designing, implementing and evaluating tailored outreach. Trained Extension nutritionists and parenting and 4-H educators lead local program activities. Researchers in horticulture and agricultural economics and marketing investigate options for improving local production and direct marketing of fresh produce into areas where they are currently lacking.

Programs for children and youth are delivered through a variety of settings: 4-H camps, clubs, fairs and afterschool as well as through child-parent/grandparent involvement projects and in-school student education. Family-focused programs promote a positive parent/care-giver-child feeding relationship and planning for good nutrition and physical activity. Extension staff collaborate with community leaders to improve the local environment for healthy eating and active living. Activities include sequential learning events, "community workshops" and engagement with community and civic leaders to improve the environment for nutrition and wellness and support of the local food system.

2. Brief description of the target audience

Audiences reached include: moderate and low income families; 4-H youth; children in and out of school; nutrition, health, and family professionals; front-line family workers; school food service staff; community leaders; and government and agency leaders at the local, state, and federal level.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA}	{NO DATA}	{NO DATA}	{NO DATA}
Actual	155429	2175445	39577	356285

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan:
 Actual: 1

Patents listed

Body Shape Analysis Method

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Actual	0	0	255

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- (4.1a) # children, youth, parents/caregivers and other adults reached via healthy eating and active living programs
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- (4.1b) # of women and health providers completing education programs addressing healthy weight gain during pregnancy and breastfeeding
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- (4.1c) #of extension educators and/or volunteers participating in training programs to enhance obesity prevention educational opportunities for children and youth, and adults who care for them

Not reporting on this Output for this Annual Report

Output #4

Output Measure

- (4.2a) # of program participants reached to improve their food resource management and food security

Not reporting on this Output for this Annual Report

Output #5

Output Measure

- (4.3a) # of community and/or government/ agency members completing educational programs on issues related to childhood obesity prevention programs and policy related to healthy living
- Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	(4.1d) # of children, youth, parents/caregivers and other adults who demonstrate knowledge or skill gains related to healthy eating and active living
2	(4.1e) #of women and health providers demonstrating increased knowledge or skill gains related to healthy weight gain during pregnancy and breastfeeding
3	(4.1f) # of extension educators or volunteers demonstrating knowledge or skill gains related to healthy eating and active living programs for obesity prevention
4	(4.1g) # of youth program participants documented to have applied healthy eating and/or active living, recommendations
5	(4.1h)# of adult program participants documented to have applied healthy eating and/or active living, recommendations
6	(4.1i) # of extension educators and/or volunteers reporting increased delivery of healthy living-related programs
7	(4.1j) # of vulnerable children and youth documented to have reduced incidence of overweight and obesity as a result of participating in relevant educational programs
8	(4.1k) # of adult program participants documented to have reduced one or more chronic disease indicators associated with overweight
9	(4.2b) #of program participants who demonstrate knowledge or skill gains related to food resource management and food security
10	(4.2c) # of program participants who adopt food resource management and/or food security practices
11	(4.2d) # of program participants documented to have improved food resource management and/or food security
12	(4.3b) # of program participants who demonstrate increased knowledge or skill gains related to childhood obesity prevention programs and policies
13	(4.3c) # of program participants documented to have increased involvement in public/community childhood obesity prevention actions
14	(4.3d) # of participating schools and/or communities documented to have made practice and/or policy changes to promote healthy eating and active living
15	(4.3e) # of participating schools and/or communities reporting decline in incidence of childhood overweight and/or indicators of chronic diseases associated with obesity
16	Why Obese Women Breastfeed for Less Time Than Normal-Weight Women
17	Dog Walking and Obesity Prevention: A Methods Development Study

18	Preventing Childhood Obesity: An Ecological Approach
19	Increasing Physical Activity in Schools
20	Eat Well Play Hard Program
21	Reducing Consumption of Fast Foods & Sugary Drinks

Outcome #1

1. Outcome Measures

(4.1d) # of children, youth, parents/caregivers and other adults who demonstrate knowledge or skill gains related to healthy eating and active living

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

(4.1e) #of women and health providers demonstrating increased knowledge or skill gains related to healthy weight gain during pregnancy and breastfeeding

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

(4.1f) # of extension educators or volunteers demonstrating knowledge or skill gains related to healthy eating and active living programs for obesity prevention

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

(4.1g) # of youth program participants documented to have applied healthy eating and/or active living, recommendations

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	15791

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #5

1. Outcome Measures

(4.1h)# of adult program participants documented to have applied healthy eating and/or active living, recommendations

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	47174

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #6

1. Outcome Measures

(4.1i) # of extension educators and/or volunteers reporting increased delivery of healthy living-related programs

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

(4.1j) # of vulnerable children and youth documented to have reduced incidence of overweight and obesity as a result of participating in relevant educational programs

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

(4.1k) # of adult program participants documented to have reduced one or more chronic disease indicators associated with overweight

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

(4.2b) #of program participants who demonstrate knowledge or skill gains related to food resource management and food security

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

(4.2c) # of program participants who adopt food resource management and/or food security practices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	20073

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #11

1. Outcome Measures

(4.2d) # of program participants documented to have improved food resource management and/or food security

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	11069

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
701	Nutrient Composition of Food
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #12

1. Outcome Measures

(4.3b) # of program participants who demonstrate increased knowledge or skill gains related to childhood obesity prevention programs and policies

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

(4.3c) # of program participants documented to have increased involvement in public/community childhood obesity prevention actions

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

(4.3d) # of participating schools and/or communities documented to have made practice and/or policy changes to promote healthy eating and active living

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	45

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products
701	Nutrient Composition of Food
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #15

1. Outcome Measures

(4.3e) # of participating schools and/or communities reporting decline in incidence of childhood overweight and/or indicators of chronic diseases associated with obesity

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

Why Obese Women Breastfeed for Less Time Than Normal-Weight Women

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

More than half of American women of reproductive age are overweight; almost 30 percent are obese. Overweight and obese women in NY breastfeed for less time than normal-weight women and are particularly likely to stop breastfeeding soon after delivery?thus falling short of national health recommendations for how long babies should be breastfed. Meanwhile, women who breastfeed only briefly retain more weight postpartum and cannot benefit from other values breastfeeding holds for their health. Their babies are more likely to suffer from various illnesses and become obese as children or adolescents than those who are breastfed for the recommended time. The Infant Feeding Practices Study, conducted recently by the Centers for Disease Control and the Food and Drug Administration, surveyed pregnant women about their

motivations for breastfeeding. After giving birth these women provided detailed information about how they fed their babies, and why.

What has been done

Using data on about 3000 pregnant women and their infants, we applied standard statistical techniques to test a series of hypotheses about how the psychosocial and sociocultural characteristics of women, the characteristics of their employment, and their use of breast pumps might modify how obesity affects the duration of breastfeeding. Thus we were able to study the role of the infant as a possible mediator in the association between prepregnancy body-mass index (BMI) and the duration of breastfeeding.

Results

As expected, BMI was significantly negatively associated with how long mothers produced milk as well as the extent to which they fed breast milk only. We also found that BMI was significantly positively associated with infant size at birth. Yet after adjusting for maternal prepregnancy BMI, infant size at birth was significantly positively associated with how long these mothers produced milk and fed it exclusively?in other words, the negative associations between BMI and the duration of milk production and exclusive feeding were reduced by infant size at birth. This statistical removal of infant size at birth increased the magnitude of the negative associations between maternal prepregnancy BMI, how long mothers breastfed exclusively, and their milk production. Thus the tendency of heavier mothers to deliver heavier infants reduces the true magnitude of the association between maternal prepregnancy BMI and shortened breastfeeding duration. We found that women of different BMI categories overall did not differ in whether, when, or why they expressed breast milk. Also, the association between overweight or obesity and shorter duration of breast milk production was significant only among women who never expressed milk. Compared to overweight and obese women who did not express milk, those who did produced milk longer. Breast milk expression may support longer durations of breast milk production and reduce differences among BMI groups in the duration of feeding breast milk. Women of different BMI groups exhibited similar milk expression behavior, but obese women were less able to obtain milk by expression.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #17

1. Outcome Measures

Dog Walking and Obesity Prevention: A Methods Development Study

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Overweight and obesity have grown to epidemic proportions in the U. S. in recent years. A lack of physical activity plays a major role in this change.

What has been done

We evaluated a number of features of walking in both dogs and humans. Among dogs, the average number of daily steps correlated with their body condition score, or BCS: in general, the higher the number of steps, the better their body condition. We also surveyed obesity-clinic and community members to find out how often and for how long they walked their dogs. This project is developing the data and tools in a program to combat obesity by increasing dog-walking as a form of family exercise.

Results

The mean difference in average daily walking steps between obese and proper-weight dogs was 7,098 steps a day, or about 45 minutes of walking a day. This increased physical activity allowed for higher kilocalorie consumption during a weight-loss program. Within such a program, each 1,000-step interval equates to approximately 1 extra kilocalorie per kg consumed. Meanwhile, considerable differences were seen in how often obesity-clinic and community participants walked their dogs. Seventy percent of community walkers reported walking their dog at least once a day, while only 25% of the obesity clinic participants did. Sixty per cent of community participants reported that they walked for at least 30 minutes. In contrast, just 25% of obese dog owners did. Yet we found no differences in people’s attitudes about how important dogs were to them and their families. We also monitored walking among people in the community group. They were enthusiastic participants?retention of participants was 95% and on average they walked 11,906 steps daily. Surprisingly, that’s twice the most frequently cited average?5,931 steps is considered highly active. Our community participants also displayed no difference in average step numbers despite their varying BMI levels, a result not observed in most studies. In fact, several studies including our own have shown that people walk less on weekends. Yet our dog -walking group had significantly higher step values on weekends (12,541 daily steps, Friday to Sunday) than they did during the week (10,994 daily steps, Monday to Thursday). We will examine how this enthusiasm plays out in the general population of dog walkers in future studies.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #18

1. Outcome Measures

Preventing Childhood Obesity: An Ecological Approach

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Educators and other professionals working with youth require comprehensive understanding of the contributors to childhood obesity.

What has been done

AFRI and Federal Formula Funds have supported the delivery and evaluation of the online course, Preventing Childhood Obesity: An Ecological Approach. The long term goal of the overall project is to build the capacity of extension professionals and their community partners to effectively apply an ecological approach to preventing childhood obesity at the local level.

Results

To date, 13 sessions of the course has been delivered to 391 extension nutrition, 4-H youth development and other community professionals from 42 states. Evaluation results from the first 6 sessions have shown statistically significant positive changes in participant knowledge, skills and self-efficacy in using an ecological approach, demonstrating the course is effective in building capacity of the target audience.

For many, the course helps them consider strategies beyond the traditional information dissemination approach. Participants have also indicated numerous ways in which they put the information in the course to work in their communities. Six-month follow up surveys have provided some insights into the value of the course, such

as "Our Michigan team found this to be a rich learning opportunity and it has fostered knowledge, collaboration and friendships. I found myself anxious for each new assignment and opportunity to work together. I personally am very excited to have this new knowledge base to draw from."

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #19

1. Outcome Measures

Increasing Physical Activity in Schools

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

NYS Department of Education requires 120 minutes of physical activity to children in grades 1 to 6. Like many elementary schools, Lyons Elementary fell short of this requirement. They provided 80 minutes per week regularly.

What has been done

Through the Eat Well Play Hard Community Project (EWPH), CCE of Wayne was able to provide mini-grants valued at up to \$1,000 to elementary schools to either improve access to physical activity or to healthy foods in a way that would be sustainable.

Results

500 students now participate in an additional 40 minutes of physical activity per week, supplementing the 80 minutes provided by physical education classes, meeting the 120 minutes per week required by NYS Department of Education. ?Take 10! is written into the Lyons physical education plan submitted to NYS Department of Education.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #20

1. Outcome Measures

Eat Well Play Hard Program

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Obesity and diabetes have emerged as two of the most critical health threats to New Yorkers reducing the quality of life of families, shortening the life span of children, increasing health care costs and reducing productivity of children and adults. Eat Well Play Hard was an opportunity through grant funding to make environmental changes to impact the increasing rate of childhood obesity in Delaware and Greene Counties.

What has been done

Cornell Cooperative Extension has taken leadership in Delaware and Greene Counties to form Eat Well Play Hard Partnerships to develop programs to implement three Eat Well Play Hard strategies: increase physical activity, consumption of fruits and vegetables and consumption of low fat and fat free dairy products for children over the age of two and their families. Cornell Cooperative Extension has offered hands on training to day care providers in each county through six workshops on nutrition for children, vegetables and local foods, physical activity, gardening and creating outdoor play areas. Minigrants have been awarded to support community organizations and schools to make sustainable healthy change for youth increasing physical activity and healthy food choices.

Results

Farmer Markets have been established in three communities to increase access to healthy foods. Community centers and schools have been trained to implement the three Eat Well Play Hard strategies. Eat Well Play Hard Partnerships in each county have completed mission and vision statements and implemented Eat Well Play Hard strategies and environmental changes in their agencies/organizations. Charlotte Valley and Sidney Central Schools completed School Health Index assessments and school policies to implement the Eay Well Play Hard Strategies in their schools. These schools increased physical activity in their schools by 20 percent as a result of Eat Well Play Hard. Four schools and four community gardens were planted, harvested and

vegetables were eaten by youth and families as part of the minigrant funded projects. 169 registered daycare providers and centers received training/credits through Eat Well Play Hard. Three farmer markets were established in Delaware County to increase the redemption of Farmer Market Coupons and access to locally grown fruits and vegetables by WIC and senior participants as part of Eat Well Play Hard. The redemption rate for Farmer Market Coupons was increased by 6.8% at the Sidney Market as tracked through WIC the first full season at the market.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #21

1. Outcome Measures

Reducing Consumption of Fast Foods & Sugary Drinks

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

According to a publication from the Robert Wood Johnson Foundation, "F as in Fat", Obese American children and teenagers today are on track to have poor health throughout their adult lives. Overall, this next generation of Americans could be the first to have shorter, less healthy lives than their parents. The Center for Disease Control can be cited as listing the "...shift in diet toward the increased intake of energy-dense foods that are high in fats and sugars..." as one of the main causes of the childhood obesity epidemic. This epidemic is growing in seriousness and anyone who is concerned about the physical and economic health of our nation is tuned into the subject of childhood obesity.

What has been done

Over 557 youth, ages 8-15 in an after school program, 3 summer recreation programs, 2 school fairs and a community event compared sugar and fat content in popular drinks and fast foods. The youth used math skills to translate grams of sugar and fat into teaspoons and created a visual by measuring the number of teaspoons in their favorite food and drink choices. Youth then

worked to make alternative choices that are lower in sugar and fat and contain more nutrients, such as low-fat milk. Participants also made simple low-fat, low-sugar, high protein, high fiber recipes to sample and take away as examples of healthier choices. Youth involved in this program practiced a variety of life skills including healthy lifestyle choiceec, decision making wise use of resource and self-discipline.

Results

72% of youth gained practical skills reading and interpreting nutrition labels on beverage containers 83% of youth demonstrated improved attitudes around healthy food and drink choices by trying different foods and drinks and 50% of the youth requested seconds of the items they tasted. 48% of the youth expressed surprise, disappointment and disgust over the amount of sugar and fat in their favorite fast foods and sugary drinks. 33% of the youth set goals to decrease the number of sugary drinks they take in each day.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

The scope and scale of outcomes can be greatly enhanced by augmenting Federal Formula Funds with external sources of support. However, external grant funds may only support certain activities or aspects of this plan. Local governments, an important funder for local extension staff, face diminished revenues and increased mandated costs outside of the non-mandated extension programs. Thus having staff professionals available to implement new research-based programming is not always possible. A very slow recovery from the recession and pockets of high unemployment in the state affect how public and private funds are allocated to educational activities. In some instances, family subsistence will be a higher priority than improved nutrition and opportunities for physical activity. As an example of the latter, in New York State, cost cutting proposals include closing some public parks and reducing recreational physical activity programs. Some decision-makers and others in the community may not agree with all aspects of an ecological approach to childhood obesity prevention. They may disagree with community or institutional policy changes such as eliminating non-nutritious snacks from after school activities and place all responsibility on the individual and within the family, disregarding most environmental factors outside the family.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Food Safety

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
308	Improved Animal Products (Before Harvest)	5%		2%	
501	New and Improved Food Processing Technologies	10%		36%	
503	Quality Maintenance in Storing and Marketing Food Products	18%		0%	
504	Home and Commercial Food Service	30%		0%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	10%		4%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	15%		23%	
721	Insects and Other Pests Affecting Humans	2%		6%	
722	Zoonotic Diseases and Parasites Affecting Humans	0%		12%	
723	Hazards to Human Health and Safety	10%		17%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Actual	117.0	0.0	8.0	0.0

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
567982	0	334669	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
567982	0	334669	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	94728	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	94728	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

This is a comprehensive program entailing a wide range of applied research activities and multiple education methods depending on context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

Examples of activities are:

- Convey general knowledge and understanding of food safety science to New York State residents and beyond via varied communication strategies;
- Provide educational programs in collaboration with regulatory agencies involved with assuring the safety and wholesomeness of food processed, prepared, sold and handled and consumed by the public in New York State;
- Via courses, presentations and materials, support transfer of new research-based information for appropriate applications in the agricultural production, manufacturing, retailing and food service industries;
- Communicate current food safety production, manufacturing and technical problems to researchers at Cornell;
- Conduct specialized instruction in the effective application of laboratory methods to maintain and improve product safety and quality in the dairy and food industry.

2. Brief description of the target audience

Audiences reached include: processors, producers and consumers with targeted programs for moderate and low income families; 4-H youth; nutrition, health, and family professionals; front-line family workers; food service and food production staff and their managers and directors; and government and agency leaders at the local, state, and federal level.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA}	{NO DATA}	{NO DATA}	{NO DATA}
Actual	62172	2135450	15831	142514

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan:
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Actual	0	0	83

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- (5.1a) # of consumers participating in programs on: reducing food safety and/or food borne risks and illnesses including recommended purchasing, handling, storage, and preparation practices
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- (5.2a) # of producers/ processors/food service providers participating in programs on: reducing food safety and/or food borne risks and illnesses including recommended production,

processing, storage, handling, marketing, and preparation practices

Not reporting on this Output for this Annual Report

Output #3

Output Measure

- (5.3a) # food safety decision-makers, policy makers and other officials reached with science-based information to improve food safety practices and policies

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	(5.1b) # of consumers who demonstrate knowledge or skill gains related to reducing food safety and/or foodborne risks and illnesses including recommended purchasing, handling, storage, and preparation practices
2	(5.1c) # of consumers documented to have implemented new and/or increased application of ongoing safe food purchasing, handling, storage, and preparation practices
3	(5.1d) Reduced incidence of foodborne illness among program participants
4	(5.2b) # of producers/ processors/food service providers who demonstrate knowledge or skill gains related to reducing food safety and/or foodborne risks and illnesses including recommended production, processing, storage, handling, marketing, and preparation practices
5	(5.2c) # of producers/ processors/food service providers documented to have implemented new and/or increased application of ongoing safe food production, processing, storage, handling, marketing and preparation practices
6	(5.2d) Improved safety of foods available through wholesale and retail outlets and institutional foods
7	(5.3b) # of food safety decision-makers, policy makers and other officials who demonstrate knowledge gains relative to improved food safety practices and policies
8	(5.3c) # of communities/ firms/or organizations documented to have assessed practices or food safety policies as a result of participating in relevant educational programs
9	(5.3d) # of communities/firms/or organizations documented to have implemented improved practices or food safety policies as a result of participating in relevant educational programs
10	Novel Nanofiber Biosensor for Food Safety
11	Basic and Applied Aspects of Bacterial Source Tracking
12	Farm Food Safety Training Workshops
13	Dutchess County Fish Advisory
14	Food Safety and Home Food Processing

Outcome #1

1. Outcome Measures

(5.1b) # of consumers who demonstrate knowledge or skill gains related to reducing food safety and/or foodborne risks and illnesses including recommended purchasing, handling, storage, and preparation practices

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

(5.1c) # of consumers documented to have implemented new and/or increased application of ongoing safe food purchasing, handling, storage, and preparation practices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	15984

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
503	Quality Maintenance in Storing and Marketing Food Products
504	Home and Commercial Food Service
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and

723 Naturally Occurring Toxins
Hazards to Human Health and Safety

Outcome #3

1. Outcome Measures

(5.1d) Reduced incidence of foodborne illness among program participants

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

(5.2b) # of producers/ processors/food service providers who demonstrate knowledge or skill gains related to reducing food safety and/or foodborne risks and illnesses including recommended production, processing, storage, handling, marketing, and preparation practices

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

(5.2c) # of producers/ processors/food service providers documented to have implemented new and/or increased application of ongoing safe food production, processing, storage, handling, marketing and preparation practices

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

(5.2d) Improved safety of foods available through wholesale and retail outlets and institutional foods

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

(5.3b) # of food safety decision-makers, policy makers and other officials who demonstrate knowledge gains relative to improved food safety practices and policies

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

(5.3c) # of communities/ firms/or organizations documented to have assessed practices or food safety policies as a result of participating in relevant educational programs

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

(5.3d) # of communities/firms/or organizations documented to have implemented improved practices or food safety policies as a result of participating in relevant educational programs

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	254

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
721	Insects and Other Pests Affecting Humans
723	Hazards to Human Health and Safety

Outcome #10

1. Outcome Measures

Novel Nanofiber Biosensor for Food Safety

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The detection of pathogenic organisms in our food supply is of high importance to ensure the safety of consumers nationwide. Yet we lack highly sensitive biosensor technologies that provide rapid, sensitive, inexpensive analysis of surfaces in food processing plants and can be used easily and routinely by untrained personnel onsite.

What has been done

We are developing a novel nanofiber sensing swab in the format of a Q-tip. It is simple to use, inexpensive, very rapid and ideal for detecting pathogens present on table tops, conveyor belts, pipes, fruits and vegetables, and other surfaces.

Results

Integrating nanofiber technology with highly sensitive liposome-based biosensor technology is leading to the design of a biosensor, likened to a sensing Q-tip, which will serve as a platform technology applicable to detecting a range of pathogens and toxins with applications far beyond food processing plants. Farms, hospitals, consumers could all use this device. Our sensors will enable a better protection of consumers and safe food production. It is an urgently needed tool in the fight against both food contamination and bio- or agroterrorism.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #11

1. Outcome Measures

Basic and Applied Aspects of Bacterial Source Tracking

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Applying manure to soils could contribute to bacterial contamination of local waterways. One method for tracking sources of bacterial contamination is antibiotic resistance analysis, but we need to know the source of antibiotic resistance genes and their stability in indicator bacteria.

What has been done

We are determining the genetic diversity of antibiotic-resistant bacteria in animal wastes and waste-amended soils, as well as characterizing their associated antibiotic-resistance genes. Thus we can a) help track the survival of these bacteria, b) determine the potential for lateral gene transfer to recipient bacteria in the environment, and c) help regulators understand of the potential limitations of antibiotic resistance analysis, currently one of the more popular bacterial source tracking methods.

Results

Our optical sensor strip bioassay developed detected *E. faecalis* DNA in the lab, providing proof of concept. Its use in environmental samples was limited by the length of the nucleotide sequence used to bind the target bacterial DNA. Other sequences need to be sought for commercialization. We also found that aeration and sugar additives significantly increased numbers of *E. coli* in both manure-based compost and vermicompost tea?thus neither practice should be used when preparing compost-based extracts that contain animal manure. A ?qPCR method? is straightforward, robust, rapid, and accurate, enabling us to identify point sources of fecal contamination in study streams and identifying locations where remediation should be directed. Meanwhile, biofilms had very high *E. coli* counts, providing a means for *E. coli* to persist in water bodies and recontaminate water during storms. Genetic fingerprinting of soil communities indicated that structural changes correlated highly with changes in soil pH, K, nitrate, and soil organic matter contents from manure applications. ?2D-PAGE community fingerprinting techniques? detected 3-10 times higher numbers of operational taxonomic units than 3 other

methods we tested. Subtle changes in bacterial community composition could be detected, particularly for low abundance taxa normally masked by other fingerprinting methods. Better detection of community-level differences allows us to determine if these shifts are correlated with the presence of important pathogens in samples. We also found that biochar increased microbial biomass, decreased respiration, had a profound effect on microbial community composition and diversity, and significantly increased exo-enzyme activity in amended soils.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #12

1. Outcome Measures

Farm Food Safety Training Workshops

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Food-borne illnesses from contaminated produce and other foods are big news items and cause consumers to stop buying the implicated items regardless of their source. Wholesale and retail produce buyers are now demanding that farms verify their practices to minimize microbial contamination from their end of the food supply chain. Those who do not comply will have a difficult time marketing their produce. Farmers need to be trained in Good Agricultural Practices (GAPs) to minimize microbial contamination and how to document these practices to meet the demands of their buyers.

What has been done

In-depth farm food safety training workshops were conducted in four regions of New York State. During the first day of the workshops, farmers learned the basics of minimizing microbial contamination and how to train their employees. The second day was spent writing a farm food safety plan which is required before an audit inspection of the farm can be done. A third follow-up day consisted of ?mock? farm inspections, led by NY Ag & Markets inspectors. In total, 75 farms

participated in the trainings.

Results

Through our efforts in training, farmers have overcome the ?myths? of the food safety guidelines. All of the participants had deep reservations about going into the program as required by their buyers because of misinformation that had been circulating. One of the myths was that it was going to cost huge amounts of money to comply with the guidelines. Another was that it was going to be another burdensome program being forced on them by the government. Follow up evaluations indicated that over 75% of the attendees finished their farm food safety plans and implemented them on their farms. 50% had registered with a third party auditor to have an inspection. The other 25% were close to being finished with their plan and setting up their operation to meet their plan. Since many buyers are requiring audits and certification from their growers before purchasing produce from them, having the farmers well prepared to achieve certification equates to securing their profitability. As the federal government moves toward requiring all produce growers to be following a food safety plan in the near future, our NY farmers are taking the lead nationally in being ahead of the curve.

4. Associated Knowledge Areas

KA Code	Knowledge Area
503	Quality Maintenance in Storing and Marketing Food Products
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #13

1. Outcome Measures

Dutchess County Fish Advisory

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The NYS Department of Health (NYSDOH) has informed the public that there is PCB contamination in some Hudson River fish. PCBs are a group of 209 individual chlorinated chemicals, known as congeners. NYS DOH did see higher blood PCB levels for the more chlorinated PCB chemicals in people who ate contaminated fish from the Hudson River compared to those who did not. For local purposes, the assumption is that the individuals fishing from the Hudson are also bringing their catch home to their families for a meal, and are unaware of the fish advisories.

What has been done

CCE staff provided research-based information to individuals and families through this project, while receiving vital support from Eat Smart New York, Dutchess County Fish Advisory Steering Committee, WIC and the Department of Health. The project is continuing to grow and the upcoming year will prove a great time to expand with increased programming and collaborations. The Dutchess County Fish Advisory Steering Committee brings together professionals and consumers interested in helping to direct our local efforts to educate the public about the Fish Advisories covering our section of the Hudson River. Through this steering committee, the project is able to build program opportunities through collaboration. By providing support to this project, Extension has been able to put research-based information into the hands of local anglers, local consumers, as well as to vulnerable populations.

Results

Throughout the year, the DCFA team has provided educational materials to over three hundred Hudson River Valley residents. The majority of who participated in the survey that was created to identify the effectiveness of the current NYS fish advisories. The outcomes of the surveys guide the funders in how they will market the advisories in the future. Besides survey collection, the staff provides educational materials developed by the Department of Health as well as locally produced materials. Materials are available in English and Spanish. Some of the community events that the staff participated in include, local fishing tournaments, the Walkway over the Hudson Anniversary celebration, the Dutchess County Fair, the Dutchess County Green Fair, local Rod and Gun Club events, Office for the Aging picnics, and several local fishing spots along the Hudson River. In addition to community events, the DCFA team has surveyed and provided educational materials to WIC program recipients in clinic waiting rooms, as well as part of a food safety educational session through the ESNY program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources

Outcome #14

1. Outcome Measures

Food Safety and Home Food Processing

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

More individuals are growing their own vegetables, frequenting "U Pick" farms in the county and shopping at the county's twelve Farmer's Markets or farm roadside stands in an effort to "Eat Local". To enjoy a plentiful harvest year-round, food preservation methods and the basic skills necessary to prevent food from spoiling and causing illness are essential. Orange County residents are requesting information via our consumer helpline as well as learning the techniques of food preservation first-hand.

What has been done

Three workshops were planned to address how to make jams and jellies, preserving vegetables using pressure canning techniques, and canning tomatoes, salsa and fruit. Each two-hour workshop was offered twice - both morning and evening - and used both demonstration and hands-on, experiential practice time for the participants. Step by step procedures were shown and practiced so that the important food safety aspects of food preservation were identified and followed. The classes were held in June (Jams & Jellies), July (Pressure Canning Veggies), and August (Canning Tomatoes & Fruit) and prior to the actual time that the produce would be plentiful for preserving.

Results

Each of the six workshops were filled to capacity. Over 125 people attended the classes. Participants found the classes to be extremely helpful. "Being able to see the process while being described was great"; "It is great to know that fresh, local produce can be eaten safely all through the year" were some of their responses.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

- Large food illness outbreaks are attributed to a number of factors such as the complexity of evolving microbes and changing food consumption patterns which influences the conduct of research and development of educational programs.
- Unknown agents account for approximately 81% of foodborne illnesses and hospitalizations and 64% of deaths, according to the Center for Disease Control, constraining the design of programs.
- The lack of an integrated system for federal agencies and the food industry to coordinate food contamination information hampers research and education.
- Changing and sometimes complex governmental policies and regulations affect implementation of food safety measures.
- Food from countries beyond the US may further complicate control and implementation of effective food safety measures.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Youth, Family, and Community

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
131	Alternative Uses of Land	3%		4%	
134	Outdoor Recreation	1%		7%	
511	New and Improved Non-Food Products and Processes	3%		16%	
607	Consumer Economics	7%		3%	
608	Community Resource Planning and Development	15%		2%	
609	Economic Theory and Methods	0%		2%	
610	Domestic Policy Analysis	4%		6%	
801	Individual and Family Resource Management	8%		3%	
802	Human Development and Family Well-Being	12%		13%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	7%		17%	
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	4%		2%	
805	Community Institutions, Health, and Social Services	6%		7%	
806	Youth Development	30%		18%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Actual	440.0	0.0	7.0	0.0

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
2129931	0	725288	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
2129931	0	725288	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	423	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	423	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Youth

This is a comprehensive, statewide educational program entailing a wide variety of applied research and multiple education methods depending on local context and need. Campus-based faculty and extension associates, program work teams, the NYSACCE4-HE professional development committee and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

A variety of educational strategies will be used to help county educators and volunteers gain the skills and knowledge necessary to fully understand and differentiate between the range of possibilities that exist within initiatives. Trained 4-H Staff, teachers, community agency staff, volunteers, and teens lead youth in 4-H projects, which are a planned series of learning experiences through which youth develop knowledge, practical skills (woodworking, gardening, cooking, etc.) and life skills (decision-making, self-discipline, leadership, etc.) in a variety of settings including after school programming and school

Family

This is a comprehensive, statewide educational program entailing multiple education methods depending on local context and need. Campus-based faculty and extension associates and county-based educators are involved in designing, implementing, and evaluating tailored, as well as state-wide, educational efforts depending on the focus and scope of their role.

Community

CCE, CUAES and NYSAES have a commitment to the people of New York to build self-capacity among citizens so they can solve problems, improve quality of life, and build strong and vibrant communities. Through integrated research and extension agendas, we can help develop effective and collaborative land use/natural resource management approaches and policies that enhance economic, environmental and social connections. Program staff work with a variety of state and local groups to tackle projects that vary in nature from applied research to pilot projects or case studies. These activities, which are demand driven (locally or regionally initiated usually with sponsored or self-financing), provide valuable insights, resources and materials for extension education.

2. Brief description of the target audience

Youth

- Young people
- Youth development educators and workers
- Youth development volunteers
- Parents and guardians
- Youth serving organizations
- Teachers and schools
- Community leaders

Family

- Parents, grandparents and other caregivers
- Child care providers
- Community stakeholders such as employers, leaders and policy makers at the local and state levels
- Low and moderate-income households who are especially vulnerable to financial setbacks and have less disposable income to commit to savings.
- Low-income households living in poor-quality housing.

Community

- Elected officials, community leaders, business leaders, not-for-profit agencies, youth serving agencies, schools, environmental groups, agribusiness leaders, etc.
- Retirees and other elders who have time to engage in community stewardship
- Engaged community citizens
- Communities as whole: youth and adults organizations, businesses, schools, and other institutions
- Agriculture/horticulture/natural resource enterprise managers, community residents and visitors, youth, local media, local officials, and local planning and economic development staff.
- Youth and youth serving organizations and adult volunteers who work with youth

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA}	{NO DATA}	{NO DATA}	{NO DATA}
Actual	143589	3570875	259328	1138835

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan:
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Actual	0	0	315

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- (6.1a) # of youth program educators and adult volunteers participating in programs on positive youth development
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- (6.1b) # of youth participating in projects related to vocational skills and/or citizenship
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- (6.2a) # of 4-H members enrolled in Science and Technology project areas
 Not reporting on this Output for this Annual Report

Output #4

Output Measure

- (6.2b) # of youth reached through school enrichment and special interest programs, 4-H camp, and after school programs coded as science and technology related
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- (6.2c) # of 4-H and other youth program educators and adult volunteers participating in programs on SET for youth
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- (6.3a) # of infant and child care-givers completing non-formal education programs about quality dependent care giving
Not reporting on this Output for this Annual Report

Output #7

Output Measure

- (6.3b) # of persons with care-requiring dependents completing non-formal education programs on selection of care-giving individuals and facilities
Not reporting on this Output for this Annual Report

Output #8

Output Measure

- (6.4a) # of organizations, agencies, and institutions participating in non-formal educational programs about social and public policy issues to enhance opportunities for safe, economical, and developmentally appropriate care-giving programs for infants, children and youth
Not reporting on this Output for this Annual Report

Output #9

Output Measure

- (6.5a) # of persons completing complete non-formal education programs about parenting
Not reporting on this Output for this Annual Report

Output #10

Output Measure

- (6.6a) # of persons completing education programs on age-appropriate topics like spending and saving concepts, appropriate use of money, financial goals, tracking expenses, budgeting, credit management, financial planning, and/or wealth generation strategies
Not reporting on this Output for this Annual Report

Output #11

Output Measure

- (6.7a) # of consumers and property managers completing programs on indoor air quality issues
Not reporting on this Output for this Annual Report

Output #12

Output Measure

- (6.8a) # of residents, community leaders, entrepreneurs, economic development professionals participating in programs re: workforce, entrepreneurial climate, diversification, economic impact analysis, e-commerce, market development, business planning, partnerships
Not reporting on this Output for this Annual Report

Output #13

Output Measure

- (6.9a) # of community members participating in educational programs related to community decision-making, public participation, planning and monitoring processes, and collaborative approaches
Not reporting on this Output for this Annual Report

Output #14

Output Measure

- (6.10a) # of economic developers and/or entrepreneurs participating in educational programs on "green" business opportunities
Not reporting on this Output for this Annual Report

Output #15

Output Measure

- (6.11a) # of residents and community leaders participating in programs on community assets, citizen involvement, property rights, land use, conservation, interaction between environmental, economic, and quality of life issues
Not reporting on this Output for this Annual Report

Output #16

Output Measure

- (6.11b) # of retirees and other elders participating in programs on environmental stewardship
Not reporting on this Output for this Annual Report

Output #17

Output Measure

- (6.12a) # of agriculture/ horticulture/natural resource business persons participating in education programs on potential environmental, health, social, and cultural impacts of their operations from the perspective of the community
Not reporting on this Output for this Annual Report

Output #18

Output Measure

- (6.13a) # of community members and/or local leaders participating in education programs on the roles of agriculture/horticulture/ natural resource enterprises in the local community, tax base, and environment
Not reporting on this Output for this Annual Report

Output #19

Output Measure

- (6.13b) # of local community members and/or leaders participating in programs on the potential benefits of community-based agriculture and opportunities for promoting same
Not reporting on this Output for this Annual Report

Output #20

Output Measure

- (6.14a) # of youth participating in education programs on the agriculture and food system and/or natural resource enterprises
Not reporting on this Output for this Annual Report

Output #21

Output Measure

- (6.14b) # of adults participating in education programs on the agriculture and food system and/or natural resource enterprises
Not reporting on this Output for this Annual Report

Output #22

Output Measure

- (6.15a) # of youth participating in education programs leading to youth community action initiatives
Not reporting on this Output for this Annual Report

Output #23

Output Measure

- (6.15b) # of youth participating in train-the-trainer programs related to youth community action
Not reporting on this Output for this Annual Report

Output #24

Output Measure

- (6.15c) # of adults participating train-the-trainer programs related to youth community action
Not reporting on this Output for this Annual Report

Output #25

Output Measure

- (6.15d) # of communities participating in youth community action initiatives

Not reporting on this Output for this Annual Report

Output #26

Output Measure

- (6.16a) # of hours of instruction by Master Gardener volunteers in educational programs for youth and adult audiences

Not reporting on this Output for this Annual Report

Output #27

Output Measure

- (6.16b) # of hours by Master Gardener volunteers in general program support

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	(6.1c) # of youth participants who demonstrate gains in vocational/citizenship skills - knowledge, attitudes, and/or behaviors
2	(6.1d) # of youth participants who learn to set goals, make plans and identify resources to achieve goals
3	(6.1e) # of youth program educators and adult volunteers who demonstrate knowledge and/or skill gains in meeting the needs of youth at various stages of development
4	(6.1f) # of youth participants who demonstrate ability to express their ideas confidently and competently
5	(6.1g) # of adult volunteers documented to mentor and advise youth and other adult volunteers in an effective and positive manner
6	(6.1h) # of youth participants documented as serving in age-appropriate leadership roles
7	(6.1i) # of youth organizations/programs documented as reflecting youth needs, interests, and excitement for learning
8	(6.2d) # participants demonstrating increased awareness of SET, improved SET skills including scientific methods, knowledge of specific sciences, and/or increased awareness of opportunities to contribute to society using SET skills
9	(6.2e) # of participants that report improved success in school science and/or increased interest in science and technology
10	(6.2f) # youth applying SET learning to contexts outside 4-H programs, e.g., school classes, science fairs, invention contests, etc.
11	(6.2g) # youth expressing interest/demonstrating aspirations towards SET careers, e.g., career fairs, job shadowing, volunteer work or internships
12	(6.2h) # youth adopting and using new scientific methods or improved technology
13	(6.2i) # of youth and adult volunteers documented to become contributing participants in sci/tech related issues in their communities and/or choose sci/tech related professions and who attribute same at least in part to involvement with the program
14	(6.2j) Increased number and more diverse pool of youth pursuing education and careers in SET related fields
15	(6.2k) Increased and more diverse pool of trained teachers, educators, scientists
16	(6.3c) # of participating infant and child caregivers who demonstrate knowledge or skill gains related care-giving practices
17	(6.3d) # of participating persons with care-requiring dependents who demonstrate ability to evaluate the quality of care programs

18	(6.3e) # of participating infant and child caregivers reporting to have applied positive care-giving practices
19	(6.3f) # participating persons with care-requiring dependents reporting to have used child care quality characteristics in their care selection
20	(6.3g) # participating persons with care-requiring dependents reporting positive change in child care as a result of participating in educational programs
21	(6.4b) # of program participants who demonstrate knowledge or skills gains regarding community approaches to family care
22	(6.4c) # of program participants reporting to have been involved in community level assessments of family care needs
23	(6.4d) # of communities documented to have taken action to address family needs that can be related to educational programs and/or critical community collaborations provided
24	(6.5b) # parents, grandparents and other adults providing parental care gaining who demonstrate knowledge or skills gains regarding developmentally appropriate and effective parenting methods
25	(6.5c) # parents and other adults providing parental care adopting development-ally appropriate and effective parenting methods
26	(6.5d) # parents/ relative caregivers reporting to have experienced positive change in parent-child relationships and child nurturance that they attribute to implementing new parenting behaviors learned in educational programs
27	(6.6b)# participants who demonstrate knowledge or skill gains and/or can articulate specific actions they will take related to spending and saving concepts, appropriate use of money, setting financial goals, tracking expenses, budgeting, credit management, financial planning, and/or wealth generation strategies
28	(6.6c)# of program participants reporting they are practicing improved money management skills such as comparison shopping, paying bills on time, paying more than minimum payment, checking credit report, and reviewing and understanding bills/statements as a means to meeting financial goals
29	(6.6d)# of program participants reporting to have met day-to-day financial obligations while also progressing on future goals for homeownership, savings, retirement accounts, etc.
30	(6.6e)# of program participants reporting to have reduced debts and/or increased savings
31	(6.7b) # of consumers and property managers gaining awareness and knowledge of indoor air quality issues and remediation options
32	(6.7c)# of program participants documented to have taken measures to prevent or remediate indoor air quality issues
33	(6.7d) # of program participants documented to have reduced short-term health effects of indoor air pollutants (such as irritation of the eyes, nose, and throat, headaches, dizziness, and fatigue) as a result of participating in educational programs
34	(6.7e) # of participants reducing risks of respiratory diseases, heart disease, and cancer by implement measures such as radon remediation, controlling indoor triggers of asthma: secondhand smoke, dust mites, pet dander, and pests
35	(6.8b)# of residents, community leaders, entrepreneurs, economic development professionals demonstrating knowledge/ skill gains re: workforce, entrepreneurial climate, diversification, economic impact analysis, e-commerce, market development, business

	planning, partnerships
36	(6.8c) # of residents and/or community leaders, demonstrating knowledge/skill gains about enhancing facilities and/or other community resources or services
37	(6.8d) # of communities who plan for and implement initiatives on community based agricultural economic development, workforce development, business and entrepreneurial development and assistance, non-profit sector development and/or other elements of sustainable growth
38	(6.8e) # of residents and/or community leaders, who plan for and initiate steps to enhance facilities, and/or other community resources or services
39	(6.8f) # of communities establishing an infrastructure and climate to support entrepreneurs, local farms and agribusinesses attributable at least in part to initiatives of the program
40	(6.8g) # of communities documenting improvements in facilities and/or other community resources or services
41	(6.8h) # of employers establishing or contributing to community-based workforce development approaches
42	(6.8i) # of employers reporting enhanced workforce availability attributable at least in part to participation in the program
43	(6.9b) # of community members demonstrating knowledge or skills gains related to community decision-making, public participation, planning and monitoring processes, collaborative approaches, and/or emergency preparedness
44	(6.9c) # of communities instituting new or enhanced participatory processes related to economic development
45	(6.9d) # of collaborative partnerships established within and across communities for issue resolution and collective action and/or to improve community services
46	(6.9e) # of documented instances in which a community effectively resolves a need or strengthens community assets attributable at least in part to participation in the program
47	(6.9f) # of communities reporting specific improvements in quality or scope of community services
48	(6.10b) # of workforce professionals, economic developers and/or entrepreneurs demonstrating knowledge gains related to "green" workforce and business opportunities
49	(6.10c) # of new workers trained and "green" businesses established at least in part due to participation in the program
50	(6.10d) # of communities that report increased diversification of their local economies attributable at least in part to participation in the program
51	(6.11c) # of residents and/or community leaders demonstrating knowledge or skill gains related to community assets, property rights, land use, environmental conservation, interaction between environmental, economic issues, quality of life indicators
52	(6.11d) # of community leaders documented to apply community economic development and quality of life indicators to support decision-making
53	(6.11e) # instances in which communities are documented to have resolved agricultural-environmental conflicts and/or other land use/natural resource issues at least in part due to participation in the program

54	(6.11f) # of communities implementing projects that protect public health and community well being through sound environmental management
55	(6.11g) # of municipalities adopting land use planning tools that incorporate environmental dimensions and/or develop new institutional arrangements to support land use planning and environmental management
56	(6.11h) # of communities adopting or updating farmland preservation and/or agricultural economic development plans
57	(6.11i) # of additional acres covered by open space preservation, environmental conservation and/or protection programs attributable at least in part to participation in the program
58	(6.11j) Increase in percentage of food produced locally and regionally that is consumed locally or regionally
59	(6.11k) (2.1.3h) # of residents and/or community leaders, demonstrating knowledge/ skill gains about sustainable communities and enhancing public spaces
60	(6.11l) # of communities that plan for development of existing communities to create a broader range of housing types within existing communities including affordable housing, focus on bikable and walkable communities, and/or a variety of transportation choices
61	(6.11m) # of residents and/or community leaders, who plan for and initiate steps to enhance public spaces
62	(6.11n) # of instances in which communities institute changes leading to one of following: development of existing communities, expanded range of housing types, more bikable and/or walkable community, variety of transportation choices
63	(6.11o) # of new or enhanced community organizations or networks linking diverse sub-groups and focused on enhancing community sustainability
64	(6.11p) # of communities documenting improvements in public spaces
65	(6.12b) # of agriculture/horticulture/natural resource business persons demonstrating knowledge or skill gains related to potential environmental, health, social, and cultural impacts of their operations from the perspective of the community
66	(6.12c) # of instances in which producers/ horticulture businesses/ natural resource enterprises, residents and community leaders work together to address issues
67	(6.12d) # documented instances in which agriculture/community conflicts are resolved locally
68	(6.13c) # of community members and/or local leaders demonstrating knowledge or skill gains related to the roles of agriculture/horticulture/ natural resource enterprises in the local community, tax base, and environment and how they are affected by local policy
69	(6.13d) # of communities that assess how current policies and infrastructures sustain or impede agriculture/ horticulture/natural resource enterprises (such as farmland protection or including such enterprises in economic development planning) and how the enterprises are affected by public policy
70	(6.13e) # of communities that initiate specific plans to address agriculture/ horticulture/ natural resource enterprise related issues or capitalize on new opportunities including community agriculture initiatives
71	(6.13f) # communities documented to adopt, maintain, or expand policies supportive of appropriate agriculture/horticulture/ natural resource enterprise development and/or community agriculture

72	(6.14c) # of youth demonstrating knowledge or skill gains related to the agriculture and food system and/or natural resource enterprises
73	(6.14e) # of adults demonstrating knowledge or skill gains related to the agriculture and food system and/or natural resource enterprises
74	(6.15e) # of youth and adults demonstrating knowledge gains related to Youth/Adult Partnerships and Youth Community Action Initiatives
75	(6.15f) # of youth documented to have practiced life skills necessary to meet challenges of adolescence and adulthood in authentic decision-making partnerships with adults as a result of participating in the program
76	(6.15g) # of adults documented to have applied knowledge, skills and abilities and behaviors necessary as they assist youth developing into productive community members as a result of participating in the program
77	(6.15h) # of documented instances in which youth and adults partner to improve quality of life within a community as a result of participating in the program
78	(6.16c) # of community residents gaining knowledge and skill in weighing the environmental impacts and consequences of management actions taken in residential landscapes and homes
79	(6.16d) # of community residents enhancing knowledge and skill in using research-based information to make plant and management choices among alternatives
80	(6.16e) # of community residents gaining knowledge and skill in choosing and growing food crops for home, school and community gardens
81	(6.16f) # of community residents practicing management tactics in residential landscapes and homes that work to sustain or enhance a healthy community and environment
82	(6.16g) # of community residents with improved availability and access to fresh fruits and vegetables
83	(6.16h) # of community education/demonstration food gardens established or maintained
84	(6.16i) Pounds of produce donated for distribution through local food organizations
85	(6.16j) Increased and informed participation in local environmental issues
86	(6.16k) Enhanced community-based support for environmental enhancement policies and initiatives
87	(6.16l) Availability of high quality local foods increases at the community level
88	(6.16m) Individuals experience improved nutrition and health status
89	Thinking Like A Scientist: Developing Real-World Thinking and Reasoning in Ethnic Minority and Disadvantaged Youth
90	Retiree Environmental Stewards Program Linking Older Adults with Environmental Protection

91	Farmland Protection
92	A Different Shade of Green
93	Parental Information and Resource Center
94	Civic Ecology Program, Military Families Project
95	Economic Activity and Impacts of the New York Grape & Wine Classifieds in 2010

Outcome #1

1. Outcome Measures

(6.1c) # of youth participants who demonstrate gains in vocational/citizenship skills - knowledge, attitudes, and/or behaviors

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

(6.1d) # of youth participants who learn to set goals, make plans and identify resources to achieve goals

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

(6.1e) # of youth program educators and adult volunteers who demonstrate knowledge and/or skill gains in meeting the needs of youth at various stages of development

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

(6.1f) # of youth participants who demonstrate ability to express their ideas confidently and competently

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	20506

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

Outcome #5

1. Outcome Measures

(6.1g) # of adult volunteers documented to mentor and advise youth and other adult volunteers in an effective and positive manner

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	6662

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

Outcome #6

1. Outcome Measures

(6.1h) # of youth participants documented as serving in age-appropriate leadership roles

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	5344

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
806	Youth Development

Outcome #7

1. Outcome Measures

(6.1i) # of youth organizations/programs documented as reflecting youth needs, interests, and excitement for learning

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	2351

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being
805	Community Institutions, Health, and Social Services
806	Youth Development

Outcome #8

1. Outcome Measures

(6.2d) # participants demonstrating increased awareness of SET, improved SET skills including scientific methods, knowledge of specific sciences, and/or increased awareness of opportunities to contribute to society using SET skills

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	42479

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #9

1. Outcome Measures

(6.2e) # of participants that report improved success in school science and/or increased interest in science and technology

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
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2010 {No Data Entered} 13188

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #10

1. Outcome Measures

(6.2f) # youth applying SET learning to contexts outside 4-H programs, e.g., school classes, science fairs, invention contests, etc.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	15198

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
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803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #11

1. Outcome Measures

(6.2g) # youth expressing interest/demonstrating aspirations towards SET careers, e.g., career fairs, job shadowing, volunteer work or internships

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	5812

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #12

1. Outcome Measures

(6.2h) # youth adopting and using new scientific methods or improved technology

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	6120

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #13

1. Outcome Measures

(6.2i) # of youth and adult volunteers documented to become contributing participants in sci/tech related issues in their communities and/or choose sci/tech related professions and who attribute same at least in part to involvement with the program

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

(6.2j) Increased number and more diverse pool of youth pursuing education and careers in SET related fields

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

(6.2k) Increased and more diverse pool of trained teachers, educators, scientists

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

(6.3c) # of participating infant and child caregivers who demonstrate knowledge or skill gains related care-giving practices

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

(6.3d) # of participating persons with care-requiring dependents who demonstrate ability to evaluate the quality of care programs

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

(6.3e) # of participating infant and child caregivers reporting to have applied positive care-giving practices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	310

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #19

1. Outcome Measures

(6.3f) # participating persons with care-requiring dependents reporting to have used child care quality characteristics in their care selection

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	363

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

803 Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #20

1. Outcome Measures

(6.3g) # participating persons with care-requiring dependents reporting positive change in child care as a result of participating in educational programs

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	3459

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #21

1. Outcome Measures

(6.4b) # of program participants who demonstrate knowledge or skills gains regarding community approaches to family care

Not Reporting on this Outcome Measure

Outcome #22

1. Outcome Measures

(6.4c) # of program participants reporting to have been involved in community level assessments of family care needs

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	283

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #23

1. Outcome Measures

(6.4d) # of communities documented to have taken action to address family needs that can be related to educational programs and/or critical community collaborations provided

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	36

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #24

1. Outcome Measures

(6.5b) # parents, grandparents and other adults providing parental care gaining who demonstrate knowledge or skills gains regarding developmentally appropriate and effective parenting methods

Not Reporting on this Outcome Measure

Outcome #25

1. Outcome Measures

(6.5c) # parents and other adults providing parental care adopting development-ally appropriate and effective parenting methods

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	7042

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #26

1. Outcome Measures

(6.5d) # parents/ relative caregivers reporting to have experienced positive change in parent-child relationships and child nurturance that they attribute to implementing new parenting behaviors learned in educational programs

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	8160

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
806	Youth Development

Outcome #27

1. Outcome Measures

(6.6b)# participants who demonstrate knowledge or skill gains and/or can articulate specific actions they will take related to spending and saving concepts, appropriate use of money, setting financial goals, tracking expenses, budgeting, credit management, financial planning, and/or wealth generation strategies

Not Reporting on this Outcome Measure

Outcome #28

1. Outcome Measures

(6.6c)# of program participants reporting they are practicing improved money management skills such as comparison shopping, paying bills on time, paying more than minimum payment, checking credit report, and reviewing and understanding bills/statements as a means to meeting financial goals

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	3170

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
607	Consumer Economics
801	Individual and Family Resource Management

Outcome #29

1. Outcome Measures

(6.6d)# of program participants reporting to have met day-to-day financial obligations while also progressing on future goals for homeownership, savings, retirement accounts, etc.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	2181

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
607	Consumer Economics
801	Individual and Family Resource Management

Outcome #30

1. Outcome Measures

(6.6e)# of program participants reporting to have reduced debts and/or increased savings

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	1792

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
607	Consumer Economics
801	Individual and Family Resource Management

Outcome #31

1. Outcome Measures

(6.7b) # of consumers and property managers gaining awareness and knowledge of indoor air quality issues and remediation options

Not Reporting on this Outcome Measure

Outcome #32

1. Outcome Measures

(6.7c)# of program participants documented to have taken measures to prevent or remediate indoor air quality issues

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	933

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

Outcome #33

1. Outcome Measures

(6.7d) # of program participants documented to have reduced short-term health effects of indoor air pollutants (such as irritation of the eyes, nose, and throat, headaches, dizziness, and fatigue) as a result of participating in educational programs

Not Reporting on this Outcome Measure

Outcome #34

1. Outcome Measures

(6.7e) # of participants reducing risks of respiratory diseases, heart disease, and cancer by implement measures such as radon remediation, controlling indoor triggers of asthma: secondhand smoke, dust mites, pet dander, and pests

Not Reporting on this Outcome Measure

Outcome #35

1. Outcome Measures

(6.8b)# of residents, community leaders, entrepreneurs, economic development professionals demonstrating knowledge/ skill gains re: workforce, entrepreneurial climate, diversification, economic impact analysis, e-commerce, market development, business planning, partnerships

Not Reporting on this Outcome Measure

Outcome #36

1. Outcome Measures

(6.8c)# of residents and/or community leaders, demonstrating knowledge/skill gains about enhancing facilities and/or other community resources or services

Not Reporting on this Outcome Measure

Outcome #37

1. Outcome Measures

(6.8d) # of communities who plan for and implement initiatives on community based agricultural economic development, workforce development, business and entrepreneurial development and assistance, non-profit sector development and/or other elements of sustainable growth

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	169

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #38

1. Outcome Measures

(6.8e) # of residents and/or community leaders, who plan for and initiate steps to enhance facilities, and/or other community resources or services

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	101

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #39

1. Outcome Measures

(6.8f) # of communities establishing an infrastructure and climate to support entrepreneurs, local farms and agribusinesses attributable at least in part to initiatives of the program

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #40

1. Outcome Measures

(6.8g) # of communities documenting improvements in facilities and/or other community resources or services

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	45

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #41

1. Outcome Measures

(6.8h) # of employers establishing or contributing to community-based workforce development approaches

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
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2010 {No Data Entered} 48

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #42

1. Outcome Measures

(6.8i) # of employers reporting enhanced workforce availability attributable at least in part to participation in the program

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	28

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #43

1. Outcome Measures

(6.9b) # of community members demonstrating knowledge or skills gains related to community decision-making, public participation, planning and monitoring processes, collaborative approaches, and/or emergency preparedness

Not Reporting on this Outcome Measure

Outcome #44

1. Outcome Measures

(6.9c) # of communities instituting new or enhanced participatory processes related to economic development

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	13

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
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- 608 Community Resource Planning and Development
- 803 Sociological and Technological Change Affecting Individuals, Families, and Communities
- 805 Community Institutions, Health, and Social Services

Outcome #45

1. Outcome Measures

(6.9d) # of collaborative partnerships established within and across communities for issue resolution and collective action and/or to improve community services

Not Reporting on this Outcome Measure

Outcome #46

1. Outcome Measures

(6.9e) # of documented instances in which a community effectively resolves a need or strengthens community assets attributable at least in part to participation in the program

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	31

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

- | KA Code | Knowledge Area |
|---------|--|
| 608 | Community Resource Planning and Development |
| 803 | Sociological and Technological Change Affecting Individuals, Families, and Communities |

Outcome #47

1. Outcome Measures

(6.9f) # of communities reporting specific improvements in quality or scope of community services

Not Reporting on this Outcome Measure

Outcome #48

1. Outcome Measures

(6.10b) # of workforce professionals, economic developers and/or entrepreneurs demonstrating knowledge gains related to "green" workforce and business opportunities

Not Reporting on this Outcome Measure

Outcome #49

1. Outcome Measures

(6.10c) # of new workers trained and "green" businesses established at least in part due to participation in the program

Not Reporting on this Outcome Measure

Outcome #50

1. Outcome Measures

(6.10d) # of communities that report increased diversification of their local economies attributable at least in part to participation in the program

Not Reporting on this Outcome Measure

Outcome #51

1. Outcome Measures

(6.11c) # of residents and/or community leaders demonstrating knowledge or skill gains related to community assets, property rights, land use, environmental conservation, interaction between environmental, economic issues, quality of life indicators

Not Reporting on this Outcome Measure

Outcome #52

1. Outcome Measures

(6.11d) # of community leaders documented to apply community economic development and quality of life indicators to support decision-making

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	204

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #53

1. Outcome Measures

(6.11e) # instances in which communities are documented to have resolved agricultural-environmental conflicts and/or other land use/natural resource issues at least in part due to participation in the program

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	33

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #54

1. Outcome Measures

(6.11f) # of communities implementing projects that protect public health and community well being through sound environmental management

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
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2010 {No Data Entered} 43

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #55

1. Outcome Measures

(6.11g) # of municipalities adopting land use planning tools that incorporate environmental dimensions and/or develop new institutional arrangements to support land use planning and environmental management

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	53

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
134	Outdoor Recreation
608	Community Resource Planning and Development
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #56

1. Outcome Measures

(6.11h) # of communities adopting or updating farmland preservation and/or agricultural economic development plans

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	17

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
134	Outdoor Recreation
608	Community Resource Planning and Development
802	Human Development and Family Well-Being

803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #57

1. Outcome Measures

(6.11i) # of additional acres covered by open space preservation, environmental conservation and/or protection programs attributable at least in part to participation in the program

Not Reporting on this Outcome Measure

Outcome #58

1. Outcome Measures

(6.11j) Increase in percentage of food produced locally and regionally that is consumed locally or regionally

Not Reporting on this Outcome Measure

Outcome #59

1. Outcome Measures

(6.11k) (2.1.3h) # of residents and/or community leaders, demonstrating knowledge/ skill gains about sustainable communities and enhancing public spaces

Not Reporting on this Outcome Measure

Outcome #60

1. Outcome Measures

(6.11l) # of communities that plan for development of existing communities to create a broader range of housing types within existing communities including affordable housing, focus on bikable and walkable communities, and/or a variety of transportation choices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	9

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #61

1. Outcome Measures

(6.11m)# of residents and/or community leaders, who plan for and initiate steps to enhance public spaces

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	345

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
608	Community Resource Planning and Development
802	Human Development and Family Well-Being
805	Community Institutions, Health, and Social Services

Outcome #62

1. Outcome Measures

(6.11n) # of instances in which communities institute changes leading to one of following: development of existing communities, expanded range of housing types, more bikable and/or walkable community, variety of transportation choices

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	14

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
608	Community Resource Planning and Development

Outcome #63

1. Outcome Measures

(6.11o) # of new or enhanced community organizations or networks linking diverse sub-groups and focused on enhancing community sustainability

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	26

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
134	Outdoor Recreation
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures
805	Community Institutions, Health, and Social Services

Outcome #64

1. Outcome Measures

(6.11p) # of communities documenting improvements in public spaces

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	9

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
134	Outdoor Recreation
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #65

1. Outcome Measures

(6.12b) # of agriculture/horticulture/natural resource business persons demonstrating knowledge or skill gains related to potential environmental, health, social, and cultural impacts of their operations from the perspective of the community

Not Reporting on this Outcome Measure

Outcome #66

1. Outcome Measures

(6.12c) # of instances in which producers/ horticulture businesses/ natural resource enterprises, residents and community leaders work together to address issues

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	423

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #67

1. Outcome Measures

(6.12d) # documented instances in which agriculture/community conflicts are resolved locally

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	92

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #68

1. Outcome Measures

(6.13c) # of community members and/or local leaders demonstrating knowledge or skill gains related to the roles of agriculture/horticulture/ natural resource enterprises in the local community, tax base, and environment and how they are affected by local policy

Not Reporting on this Outcome Measure

Outcome #69

1. Outcome Measures

(6.13d) # of communities that assess how current policies and infrastructures sustain or impede agriculture/ horticulture/natural resource enterprises (such as farmland protection or including such enterprises in economic development planning) and how the enterprises are affected by public policy

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	101

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #70

1. Outcome Measures

(6.13e) # of communities that initiate specific plans to address agriculture/ horticulture/ natural resource enterprise related issues or capitalize on new opportunities including community agriculture initiatives

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	79

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #71

1. Outcome Measures

(6.13f) # communities documented to adopt, maintain, or expand policies supportive of appropriate agriculture/horticulture/ natural resource enterprise development and/or community agriculture

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	69

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #72

1. Outcome Measures

(6.14c) # of youth demonstrating knowledge or skill gains related to the agriculture and food system and/or natural resource enterprises

Not Reporting on this Outcome Measure

Outcome #73

1. Outcome Measures

(6.14e) # of adults demonstrating knowledge or skill gains related to the agriculture and food system and/or natural resource enterprises

Not Reporting on this Outcome Measure

Outcome #74

1. Outcome Measures

(6.15e) # of youth and adults demonstrating knowledge gains related to Youth/Adult Partnerships and Youth Community Action Initiatives

Not Reporting on this Outcome Measure

Outcome #75

1. Outcome Measures

(6.15f) # of youth documented to have practiced life skills necessary to meet challenges of adolescence and adulthood in authentic decision-making partnerships with adults as a result of participating in the program

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	10633

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
806	Youth Development

Outcome #76

1. Outcome Measures

(6.15g) # of adults documented to have applied knowledge, skills and abilities and behaviors necessary as they assist youth developing into productive community members as a result of participating in the program

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	3310

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
806	Youth Development

Outcome #77

1. Outcome Measures

(6.15h) # of documented instances in which youth and adults partner to improve quality of life within a community as a result of participating in the program

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	1572

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services
806	Youth Development

Outcome #78

1. Outcome Measures

(6.16c) # of community residents gaining knowledge and skill in weighing the environmental impacts and consequences of management actions taken in residential landscapes and homes

Not Reporting on this Outcome Measure

Outcome #79

1. Outcome Measures

(6.16d) # of community residents enhancing knowledge and skill in using research-based information to make plant and management choices among alternatives

Not Reporting on this Outcome Measure

Outcome #80

1. Outcome Measures

(6.16e) # of community residents gaining knowledge and skill in choosing and growing food crops for home, school and community gardens

Not Reporting on this Outcome Measure

Outcome #81

1. Outcome Measures

(6.16f) # of community residents practicing management tactics in residential landscapes and homes that work to sustain or enhance a healthy community and environment

Not Reporting on this Outcome Measure

Outcome #82

1. Outcome Measures

(6.16g) # of community residents with improved availability and access to fresh fruits and vegetables

Not Reporting on this Outcome Measure

Outcome #83

1. Outcome Measures

(6.16h) # of community education/demonstration food gardens established or maintained

Not Reporting on this Outcome Measure

Outcome #84

1. Outcome Measures

(6.16i) Pounds of produce donated for distribution through local food organizations

Not Reporting on this Outcome Measure

Outcome #85

1. Outcome Measures

(6.16j) Increased and informed participation in local environmental issues

Not Reporting on this Outcome Measure

Outcome #86

1. Outcome Measures

(6.16k) Enhanced community-based support for environmental enhancement policies and initiatives

Not Reporting on this Outcome Measure

Outcome #87

1. Outcome Measures

(6.16l) Availability of high quality local foods increases at the community level

Not Reporting on this Outcome Measure

Outcome #88

1. Outcome Measures

(6.16m) Individuals experience improved nutrition and health status

Not Reporting on this Outcome Measure

Outcome #89

1. Outcome Measures

Thinking Like A Scientist: Developing Real-World Thinking and Reasoning in Ethnic Minority and Disadvantaged Youth

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Women, minorities, and people from disadvantaged backgrounds are underrepresented in science and technology careers. Many students of color and disadvantaged youth attend urban schools with few resources to train thinking and reasoning using the scientific method. Critical thinking skills help youngsters apply the scientific method successfully in real-world decision-making. New approaches to graduate scientifically literate youth into college or the world of work are needed to narrow the gap between ethnic, racial, and gender groups.

What has been done

Our initial study trained NYC public-school elementary teachers in Thinking Like A Scientist (TLAS). This novel approach for teaching critical thinking shows teachers how to promote scientific thinking by focusing on real-world examples relevant to students' lives while training students to solve real-world problems. It demonstrates the practical value of good thinking skills, enhancing the enjoyment and perceived value of science education. Overall, implications of this initial longitudinal evaluation are promising, suggesting that it is possible to teach critical scientific thinking skills to young children.

Results

Participants were a class of 19 public-school 2nd graders: 10 girls and 9 boys. The curriculum included lessons linking the scientific method to real world issues, such as making healthy decisions about food and exercise. It also introduced basic concepts such as "biased source" and "how to create a hypothesis." We evaluated TLAS with open-ended questions assessing students' ability to apply domain-general scientific reasoning. Example: Kyle picks a brand of granola bar because the TV commercial has a famous movie star in it. Is this: Good Thinking, Not-so-good thinking, or Don't Know. Why? We hypothesized that TLAS lessons on critical thinking would increase these skills and, consequently, assessment scores. We developed three versions of the evaluation measure used in an experimental design in which the class served as its own control. Version A, a pretest, provided baseline data. Version B, a second pretest, was administered 2.5 months after Version A. It captured any maturational effects due to being taught by this particular teacher and evaluated acclimation to the testing process. Version C, a post-test, measured gains in scientific reasoning. It was administered 2.5 months after Version B, during which time the teacher taught the program. Each question probed one concept, such as correlation vs. causation or distinguishing good vs. bad sources of information. The tests were rated both by a graduate student unaffiliated with the project and, independently, our research assistant. We rated tests using a 1 (poor) to 5 (excellent) scale for each answer. The baseline (Version A) per-item mean was 1.86. After the second test (Version B), scores were comparable. Next, the curriculum was taught. By our third data collection (Version C; post-curriculum) scores increased substantially to a mean of 3.03, revealing a significant increase in quality of student responses.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
806	Youth Development

Outcome #90

1. Outcome Measures

Retiree Environmental Stewards Program Linking Older Adults with Environmental Protection

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Two critically important issues facing our society are concerns about environmental sustainability and the need for more social inclusiveness of older people. Aging baby boomers provide an increasingly vast reservoir of retired persons who seek opportunities for civic engagement, but few organized pathways lead to these activities. Environmental volunteering could add value for older persons beyond the scope of conventional volunteer activities.

What has been done

We have focused on environmental volunteerism as a mechanism for social integration and psychological well being among older adults. At a broader level, our study provides valuable knowledge about motivation, satisfaction, and recruitment of volunteers in Cooperative Extension.

Results

The Retiree Environmental Stewards Program has, to date, been very successful. Speakers have been well received and many have participated in each county program. Enthusiasm has been high, with participants developing environmental stewardship ethics and projects. Recently self-report surveys were done prior to the workshop series and again at its close; we surveyed control groups as well. We also created a CLEAR (Clearinghouse on Environmental Action in Retirement) website, providing a repository for information on a range of programs involving older people in environmental volunteerism and civic engagement. Over the course of three years, we created a model program, Retirees in Service to the Environment (RISE). Over 100 people took part, reporting high levels of satisfaction. Each RISE group benefitted their communities with volunteer service. We have conducted evaluations pre- and post-test interviews, did likewise with a control group; we are now evaluating that data. Meanwhile, RISE formed the basis for numerous other activities in the area of environment and aging. We held a conference on environment in 2009 and aging and are increasingly seen as a major location for the study of this issue.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #91

1. Outcome Measures

Farmland Protection

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Statewide and nationally, farmland is being lost to development at a rapid pace. The loss of productive farmland has direct impacts on community character, environmental quality (reduced water quality), increased taxes, and the elimination of any future local food production. Agricultural landowners are not aware of many options available to keep their land in agriculture or how to transfer the farm to the next generation. Without proper planning and knowledge, many farms are split up, sold or subdivided as a way to keep cash flow or keep them viable. Often, farms are lost from one generation to the next as valuable frontage lots are sold and the farm dies from a "thousand cuts."

What has been done

Partnering with the Finger Lakes Land Trust, CCE Yates county educators provided several educational workshops, press releases, direct landowner contacts, and direct mailings on the options available to protect farmland including voluntary and purchased conservation easements.

Results

A 500 acre farm was protected this year with the purchase of development rights using a grant from the Department of Agriculture and Markets. Two farms are nearing completion of a purchase of development rights project. Several other farms are in the process of completing a voluntary easement project. Several towns have or are incorporating agricultural protection measures in their comprehensive plans or local ag protection program. In total, educational and planning efforts to protect viable agricultural lands in collaboration with the Finger Lakes Land Trust has resulted in the protection of 1,100 acres of farmland.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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131	Alternative Uses of Land
608	Community Resource Planning and Development

Outcome #92

1. Outcome Measures

A Different Shade of Green

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

As Americans struggle to keep up under rapidly changing employment conditions, veterans are experiencing even greater challenges. The Central New York economy has been hard hit in 2009 by the loss of 6.3% of its manufacturing jobs, work stoppage at the Destiny USA construction site, and layoffs and downsizing in the education and communications sectors of the local economy. Consequently, the unemployment rate in Central New York has swelled to 8% in June 2009. The unemployment picture for veterans is worse. According to Veterans Services Representatives of the New York State Department of Labor (NYS DOL), of 35,746 veterans living in Onondaga County (2005-2007 American Community Survey, U.S. Census Bureau), 3697 (10.3%) are actively registered with the One-Stop Career Center in Syracuse, NY, and 951 of these veterans are about to exhaust their unemployment benefits.

What has been done

The Different Shade of Green program was designed to offer green-focused, workforce readiness training for up to 120 unemployed, low income veterans and spouses of veterans (and other qualified non-veterans based on space availability) drawn from a five-county region of New York State. The program consisted of four ten-week training sessions that focused on career exploration, work readiness preparation, education in the Food, Renewable Energy, and Environment (FREE) disciplines, as well as emergency preparedness content. Following this intensive ten-week process, participants were offered the opportunity to pursue a month-long field placement that provides hands-on experience with green jobs in rural and urban agriculture, food supply and distribution, environmental technology, renewable energy systems, green construction and other fields of interest throughout Central New York. The program also assisted participants in obtaining career preparation skills in budgeting, computing, interviewing, and resume building.

Results

Since the Different Shade of Green program began in February 2010, 80 Central New York low-income, unemployed residents have participated in the program. Of that total, 54 have graduated from the program (including 40 veterans). As a result of the program, 34 people have obtained full-time and/or part-time employment and 11 people have gone on to pursue higher education and/or additional certification training in renewable energy disciplines. Career sectors that participants have obtained employment with local Central New York companies include the green construction, education, electronic manufacturing, food service, and renewable energy and home energy conservation sectors. The program also inspired 4 of the participants to begin the process of building their own small business (to be located in the CNY area). Business sectors include emergency management, non-profit and accounting business services.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

Outcome #93

1. Outcome Measures

Parental Information and Resource Center

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The No Child Left Behind legislation mandates increased parental involvement with schools on behalf of their children. Many parents are not aware of how to do so effectively.

What has been done

On September 30, 2010, Cornell Cooperative Extension Association of Jefferson County, in partnership with Jefferson-Lewis BOCES, completed year four of a five-year funding cycle implementing a Parental Information and Resource Center (PIRC) funded by the U.S. Department of Education.

Results

Over the past year, the PIRC worked with or provided information for school personnel or parents in 145 school districts and 959 individual schools throughout the state. Twenty-two different parenting education workshops were offered with 215 parents attending. Thirty-six professional development workshops were offered with 1,008 teachers and school personnel participating. The PIRC website, www.nyspirc.org, continues to grow. There were 58,142 visits and 69,400 downloads during the past year. The PIRC provides two quarterly newsletters, Parent Information Press for parents and School Connections for school personnel. Additionally, the PIRC served sixty-six families in the Parents as Teachers program, a home visiting program for families with young children birth to age five. The PIRC continues to work toward building statewide capacity for family engagement in New York State. In cooperation with the EPIC (Every Person Influences Children) PIRC, NYS PTA and the NYS Department of Education, Extension's PIRC sponsored the third state level Family Engagement Summit, held in September 2010 in Albany, with about 100 education leaders and policy makers in attendance.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
805	Community Institutions, Health, and Social Services

Outcome #94

1. Outcome Measures

Civic Ecology Program, Military Families Project

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The nature of military deployments is changing. Our Soldiers are leaving for longer and more frequent deployments. More than 26,000 servicemen and women, and thousands more family members across New York State suffer stress from these changes. These families need support. Studies suggest that activities as simple as gardening with neighbors help adults manage stress and build lasting relationships. Children who spend time in nature are happier and healthier.

What has been done

Cornell Cooperative Extension Association of Jefferson County in partnership with Cornell University Department of Natural Resources, Jefferson County Department of Social Services and the New York State 4-H Foundation began this program in the summer of 2008 to research whether social capita is increased as a result of participation in this type of program. This partnership continues to exist today. The target populations are both military and nonmilitary families working together on civic ecology projects across the State of New York. Civic ecology could include gardening, sport fishing to foster rehabilitation for veterans, stream restoration, hiking while recording and documenting trail status and performing routine trail maintenance, tree plantings, etc.

Results

Approximately 100 youth have participated in civic ecology projects/programs. We have 4-Hers in Erie County who have created a yellow ribbon garden at the Connecticut Street Armory in Buffalo. A new 4-H club at Stewart Air Base is in the progress of creating a peaceful meditation garden in their community. Earth boxes (self contained gardening boxes) are being used for indoor winter gardening at the Fort Drum and West Point Youth Services program. There are two units stationed in Afghanistan that are gardening with the Earth boxes. A group of high school students worked on a tree mapping project in several communities over the past summer, an Urban Bird event took place on September 25, 2010 in Watertown, a 4-H Million tree planning is taking place on Ft. Drum on November 13, 2010 and there are about four existing gardens in Jefferson County that are a part of this program. In May 2010 we presented the program at the CYFAR conference in San Francisco.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
806	Youth Development

Outcome #95

1. Outcome Measures

Economic Activity and Impacts of the New York Grape & Wine Classifieds in 2010

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Producers in the rapidly growing New York grape and wine industry often are challenged to find buyers at times of peak crop quality and sometimes fail to make sales at all. Grape consumers sometimes have difficulty obtaining needed quantities of high quality fruit they need.

What has been done

In April 2009, the Finger Lakes Grape Program (FLGP) launched the New York Grape and Wine Classifieds to help growers and winemakers in the Finger Lakes and throughout New York, find buyers or sellers of products and services that they might require. This system replaced one that had become technologically outdated, and difficult to manage and use. The site is used primarily by growers and wineries to buy and sell grapes and bulk juice or wine. The system allows these businesses to quickly and efficiently reach a large number of customers with minimal effort. The alternative is often to spend countless hours on the phone calling various contacts to try to arrange these transactions. Since its launch in 2009, the system has hosted over 1,400 ads, all of which have been provided free of charge to industry members in New York.

Results

When the results of this survey are combined, the total amount of economic activity generated by the New York Grape & Wine Classifieds site in 2010 was \$1,027,442. The system had the largest impacts in Seneca County (43% of all activity), Yates County (22%), and the grape growing regions outside of the Finger Lakes (20%) (more detailed information is available in the Appendix to this report). It should be reiterated that this is a conservative number, due to the fact that several businesses reported that they used the site to buy or purchase bulk wine or equipment but did not report the value of those transactions. In addition, we received responses to our survey from 50 users, which is below the total number of users that the site had over the past year.

While it is possible that some of the transactions that happen because of the classifieds site would occur anyway, it is likely that many, if not most, would either not take place at all, or the fruit or wine would be sold at a later time for a reduced price. If a grower realizes in the middle of harvest that they have more fruit from a vineyard than they anticipated, the classifieds site enables them to let many people know at once about its availability. This increases the chances that the fruit can be picked when it is still sound and of high quality, instead of waiting while the grower tries to find time to make numerous phone calls, and the remaining fruit decreases in quality and value.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Youth

Fiscal pressures internal to Extension and among community organizations influence the scope and quality of programming available to youth. Increasing diversity of our populations creates need for a broader array of program materials, strategies and for a focus on multicultural competencies. Changing educational standards influence acceptability of existing curricula. Regional demographic differences and differences across communities influence both needs and program strategy.

Family

The economic, political and governmental sectors affect the quality, availability and accessibility of child care. The growth of aging and minority populations in the US means more diverse cultures and values related to parenting, child care, and family care giving. Natural disasters and the economy affect household financial status and impact energy issues. They also affect the quality of the indoor air environment. Government regulation and policies driven by public priorities can change the circumstances of personal finances, the energy market and the quality of the indoor household environment. Public and private funders and CCE may have fewer fiscal resources and other resources to devote to the quality of life in financial, energy and indoor air quality matters.

Community

Communities operate in a complex and volatile context involving susceptibility to weather extremes, changing governmental policies and regulations, land uses demands and shifting development patterns, evolving consumer demands, and globalization related economic factors. Weather related disasters can greatly impact communities in terms of infrastructure damage and direct costs. The global, statewide, and regional economies directly impact local economies. Fundamental change is occurring in the state and regional economies. The specific implications of these external factors vary greatly by locale and across regions.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

1.1 Agricultural and Horticultural Business Vitality

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
511	New and Improved Non-Food Products and Processes				
601	Economics of Agricultural Production and Farm Management				
602	Business Management, Finance, and Taxation				
603	Market Economics				
604	Marketing and Distribution Practices				
605	Natural Resource and Environmental Economics				
606	International Trade and Development				
609	Economic Theory and Methods				
610	Domestic Policy Analysis				
611	Foreign Policy and Programs				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	75.0	0.0	10.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a comprehensive, statewide educational program entailing a wide variety of applied research and multiple education methods depending on local context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

Key audiences served, directly and indirectly, in enhancing agricultural and horticultural business viability include: Established producers; new and young producers, consultants and service providers, input suppliers, cooperative directors and managers, marketing firms, governmental agencies, lenders, and local/state/federal governmental leaders.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	20000	75000	0	0
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 3
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # persons completing education programs on the labor needs of agriculture/horticulture businesses and and/or the needs of potential employees. (1.1.3a)
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # producers/horticulture business persons completing education programs on business management, finance, business planning and marketing, human resource management, risk management, production economics, and business transitions. (1.1.1a)
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # producers/horticulture business persons completing programs to expand profitability, develop marketing options, diversify or substitute alternative products or enterprises, and/or increase

operational efficiencies. (1.1.2a)

Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of non-credit instructional activity contact hours directed to this plan.
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of non-credit instructional activities directed to this plan.
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# participants demonstrating knowledge or skill gains re business management, finance, business planning and marketing, human resource management, risk management, production economics, inter-generational transfer and other business transitions. (1.1.1b)
2	# participants demonstrating knowledge or skill gains related to expanding profitability, develop marketing options, diversify or substitute alternative products or enterprises, and/or increase operational efficiencies to solve immediate concerns. (1.1.2b)
3	# participants who demonstrate knowledge gains related to needs of potential employees and/or availability of qualified employees. (1.1.3b)
4	# participants documented to have applied knowledge or skills gained to strengthen existing business operations. (1.1.1c)
5	# participants documented to have initiated one or more alternative or expanded ventures. (1.1.2c)
6	# participants or producer groups who adopt practices of value-added production through retaining control of their product further in the processing chain, starting their own value added business, or forming alliances. (1.1.2d)
7	# participants documented to have made one or more changes in human resources practices to enhance labor availability or retention. (1.1.3c)
8	# participating family-owned agricultural/horticultural businesses that plan for succession, transfer, or sale of their business. (1.1.1d)
9	# participants reporting improved agricultural/ horticultural business profitability attributed at least in part to program participation. (1.1.1e)
10	# of new food, horticultural, and agricultural businesses and/or new enterprises within existing businesses reported by program participants and attributed at least in part to program participation. (1.1.2e)
11	# producers/horticultural businesses reporting improved labor availability, performance, and/or retention of higher skilled and more valuable human resource team members attributed at least in part to program participation. (1.1.3d)
12	# business owners successfully completing an intergenerational transfer or other desired dispensation of their business attributed at least in part to program participation. (1.1.1d)

Outcome #1

1. Outcome Measures

participants demonstrating knowledge or skill gains re business management, finance, business planning and marketing, human resource management, risk management, production economics, inter-generational transfer and other business transitions. (1.1.1b)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

participants demonstrating knowledge or skill gains related to expanding profitability, develop marketing options, diversify or substitute alternative products or enterprises, and/or increase operational efficiencies to solve immediate concerns. (1.1.2b)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

participants who demonstrate knowledge gains related to needs of potential employees and/or availability of qualified employees. (1.1.3b)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

participants documented to have applied knowledge or skills gained to strengthen existing business operations. (1.1.1c)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

participants documented to have initiated one or more alternative or expanded ventures. (1.1.2c)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

participants or producer groups who adopt practices of value-added production through retaining control of their product further in the processing chain, starting their own value added business, or forming alliances. (1.1.2d)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

participants documented to have made one or more changes in human resources practices to enhance labor availability or retention. (1.1.3c)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

participating family-owned agricultural/horticultural businesses that plan for succession, transfer, or sale of their business. (1.1.1d)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

participants reporting improved agricultural/ horticultural business profitability attributed at least in part to program participation. (1.1.1e)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

of new food, horticultural, and agricultural businesses and/or new enterprises within existing businesses reported by program participants and attributed at least in part to program participation. (1.1.2e)

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

producers/horticultural businesses reporting improved labor availability, performance, and/or retention of higher skilled and more valuable human resource team members attributed at least in part to program participation. (1.1.3d)

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

business owners successfully completing an intergenerational transfer or other desired dispensation of their business attributed at least in part to program participation. (1.1.1d)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants

Evaluation Results

{No Data Entered}

Key Items of Evaluation

2010 NY State Agricultural Experiment Station Research and Cornell University Research and Extension Combined Annual Report of Accomplishments and Results
{No Data Entered}

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

1.2 Viable and Sustainable Production Practices

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
201	Plant Genome, Genetics, and Genetic Mechanisms				
202	Plant Genetic Resources				
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants				
204	Plant Product Quality and Utility (Preharvest)				
205	Plant Management Systems				
211	Insects, Mites, and Other Arthropods Affecting Plants				
212	Pathogens and Nematodes Affecting Plants				
213	Weeds Affecting Plants				
215	Biological Control of Pests Affecting Plants				
216	Integrated Pest Management Systems				
301	Reproductive Performance of Animals				
302	Nutrient Utilization in Animals				
303	Genetic Improvement of Animals				
305	Animal Physiological Processes				
306	Environmental Stress in Animals				
307	Animal Management Systems				
308	Improved Animal Products (Before Harvest)				
311	Animal Diseases				
312	External Parasites and Pests of Animals				
313	Internal Parasites in Animals				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Extension	Research
------------------	-----------------

Year: 2010	1862	1890	1862	1890
	70.0	0.0	150.0	0.0
Plan				
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a comprehensive, statewide educational program entailing a wide range of applied research activities and multiple education methods depending on local context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

Key audiences served, directly and indirectly include: established producers; new and young producers, consultants and service providers, input suppliers, governmental agencies, and local and state agricultural leaders.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	7500	75000	0	0
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 35
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional activity contact hours directed to this program.

Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # producers, horticulture business persons, and/or natural resource managers completing education programs on existing and new production management practices and techniques. (1.2.1a)

Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # producers, horticulture businesses, and/or natural resource managers completing education programs on potential environmental impacts of practices; requirements and opportunities of environmental regulations and programs; whole farm systems. (1.2.2a)

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of producers, horticulture business persons, and/or natural resource managers demonstrating knowledge/skill gains re existing/new practices and techniques; improved product handling and storage to maintain quality and food safety; and/or improving production efficiency through adoption of best management practices. (1.2.1b)
2	# of producers, horticulture businesses, and/or natural resource managers demononstrating knowledge/skill gains re environmental impacts of practices; environmental regulations and programs; whole farm systems including integrated nutrient management, integrated pest management; waste management; and water protection. (1.2.2b)
3	# of producers, horticulture business persons, and/or natural resource managers modifying existing practices and/or adopted new production management practices to address current issues and improve yield efficiency, consistency and/or quality. (1.2.1c)
4	# of producers, horticulture business persons, and/or natural resource managers who report improved ability to anticipate and respond to environmental and market variations variations through alternative production management strategies. (1.2.1d)
5	# technical assistance providers documented to have incorporated current best management practices in their recommendations. (1.2.1e)
6	# of producers, horticulture businesses, and/or natural resource managers documented to have assessed potential environmental impacts of their operations and developed and acted on plans to eliminate or minimize those concerns. (1.2.2c)
7	# of producers, horticulture businesses, and/or natural resource documented to have developed and implement nutrient management and/or waste management plans or modified existing plans to meet production and environmental goals and meet regulations. (1.2.2d)
8	# of producers, horticulture business persons, and/or natural resource managers documented to have improved economic returns to agricultural business profitability and vitality resulting from enhanced production management practices. (1.2.1f)
9	# of producers, horticulture businesses, and/or natural resource documented to meet or exceed current environmental protection standards as a result of participating in relevant educational programs. (1.2.2.e)
10	# resource managers reporting reduced environmental concerns for participating enterprises. (1.2.2.f)

Outcome #1

1. Outcome Measures

of producers, horticulture business persons, and/or natural resource managers demonstrating knowledge/skill gains re existing/new practices and techniques; improved product handling and storage to maintain quality and food safety; and/or improving production efficiency through adoption of best management practices. (1.2.1b)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of producers, horticulture businesses, and/or natural resource managers demononstrating knowledge/skill gains re environmental impacts of practices; environmental regulations and programs; whole farm systems including integrated nutrient management, integrated pest management; waste management; and water protection. (1.2.2b)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of producers, horticulture business persons, and/or natural resource managers modifying existing practices and/or adopted new production management practices to address current issues and improve yield efficiency, consistency and/or quality. (1.2.1c)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of producers, horticulture business persons, and/or natural resource managers who report improved ability to anticipate and respond to environmental and market variations variations through alternative production management strategies. (1.2.1d)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

technical assistance providers documented to have incorporated current best management practices in their recommendations. (1.2.1e)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of producers, horticulture businesses, and/or natural resource managers documented to have assessed potential environmental impacts of their operations and developed and acted on plans to eliminate or minimize those concerns. (1.2.2c)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of producers, horticulture businesses, and/or natural resource documented to have developed and implement nutrient management and/or waste management plans or modified existing plans to meet production and environmental goals and meet regulations. (1.2.2d)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

of producers, horticulture business persons, and/or natural resource managers documented to have improved economic returns to agricultural business profitability and vitality resulting from enhanced production management practices. (1.2.1f)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

of producers, horticulture businesses, and/or natural resource documented to meet or exceed current environmental protection standards as a result of participating in relevant educational programs. (1.2.2.e)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

resource managers reporting reduced environmental concerns for participating enterprises. (1.2.2.f)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Government Regulations
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 9

1. Name of the Planned Program

1.3 Energy and Agriculture

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
401	Structures, Facilities, and General Purpose Farm Supplies				
402	Engineering Systems and Equipment				
404	Instrumentation and Control Systems				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	10.0	0.0	2.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a statewide educational program entailing a wide range of applied research activities and multiple education methods depending on local context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

Agricultural/horticulture/natural resource and supporting businesses are targeted both regarding biofuels production opportunities and information regarding alternative energy sources and conservation. Consumers, property managers, and community leaders are targeted for information regarding energy supply alternatives and energy conservation options for residential, facilities, and transportation needs. Citizens, community agencies and organizations are targeted for energy-related policy education efforts particularly as related to development of alternative energy sources and the interaction between land use and energy conservation.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	1750	75000	1000	0
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 2
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional activity contact hours directed to this program.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # agricultural producers and agribusiness representatives completing educational programs on the potential for development of biologically-based fuels. (1.3.1a)
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # local and state leaders completing educational programs on the potential for development of biologically-based fuels such as biodiesel, ethanol, methane, recycled vegetable oils, space heating fuels etc. (1.3.1b)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # agricultural producers and agribusiness, and natural resource business representatives completing educational programs about cropping for biofuels production. 1.3.1c)
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- # agricultural/horticulture/ natural resource and supporting business representatives completing educational programs about the availability and pros and cons of alternative energy sources and/or about potential energy savings in operations. (1.3.2a)
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# agricultural/horticulture/ natural resource and supporting businesses who demonstrate knowledge or skills gains about the availability and pros and cons of alternative energy sources and/or potential energy savings in operations. (1.3.2b)
2	# producers, economic development organizations and other groups collaborate to establish biofuels as a viable alternative crop. (1.3.1f)
3	# of existing or new producers documented to have modified existing practices or technologies and/or adopted new production management practices for biofuels production. (1.3.1g)
4	# of agricultural/horticultural/natural resource businesses documented to have adopted appropriate alternative energy sources and/or energy conservation practices. (1.3.2c)
5	# of producers, horticulture businesses and/or natural resource managers reporting that cropping for and/or use of biofuels leads to increased economic returns to their enterprises. (1.3.1h)
6	# of producers/horticulture businesses/natural resource managers documented to have improved economic returns to agricultural/ horticultural business profitability and vitality resulting from adopting alternative energy sources and/or energy conservation. (1.3.2d)
7	# agricultural producers, agribusiness, or local and state leaders who demonstrate knowledge gains about the potential for development of biologically-based fuels. (1.3.1d)
8	# forest owners and purchasers of forest products who demonstrate knowledge or skills gains about current markets for firewood and chips/pellets and associated cropping practices. (1.3.1e)

Outcome #1

1. Outcome Measures

agricultural/horticulture/ natural resource and supporting businesses who demonstrate knowledge or skills gains about the availability and pros and cons of alternative energy sources and/or potential energy savings in operations. (1.3.2b)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

producers, economic development organizations and other groups collaborate to establish biofuels as a viable alternative crop. (1.3.1f)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of existing or new producers documented to have modified existing practices or technologies and/or adopted new production management practices for biofuels production. (1.3.1g)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of agricultural/horticultural/natural resource businesses documented to have adopted appropriate alternative energy sources and/or energy conservation practices. (1.3.2c)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of producers, horticulture businesses and/or natural resource managers reporting that cropping for and/or use of biofuels leads to increased economic returns to their enterprises. (1.3.1h)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of producers/horticulture businesses/natural resource managers documented to have improved economic returns to agricultural/ horticultural business profitability and vitality resulting from adopting alternative energy sources and/or energy conservation. (1.3.2d)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

agricultural producers, agribusiness, or local and state leaders who demonstrate knowledge gains about the potential for development of biologically-based fuels. (1.3.1d)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

forest owners and purchasers of forest products who demonstrate knowledge or skills gains about current markets for firewood and chips/pellets and associated cropping practices. (1.3.1e)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)

- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 10

1. Name of the Planned Program

1.4 The Agriculture/Community Interface

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
315	Animal Welfare/Well-Being and Protection				
803	Sociological and Technological Change Affecting Individuals, Families, and Communities				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	30.0	0.0	2.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

Program activities/outputs are situation-specific but typically involve the full range of public issues education roles and methods and more general individual, group and media approaches directed to promoting awareness of issues and opportunities.

2. Brief description of the target audience

Agriculture/horticulture/natural resource enterprise managers, community residents and visitors, youth, local media, local officials, and local planning and economic development staff.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	15000	150000	5000	30000
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010

Plan: 0

Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of agriculture/ horticulture/natural resource business persons participating in education programs on potential environmental, health, social, and cultural impacts of their operations from the perspective of the community. (1.4.1a)
Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # of community members participating in education programs on the roles of agriculture/horticulture/ natural resource enterprises in the local community, tax base, and environment. (1.4.2a)
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of local leaders participating in education programs on the roles of agriculture/horticulture/ natural resource enterprises in the local community and how they are affected by local policy. (1.4.2b)
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of local community members and leaders participating in programs on the potential benefits of community-based agriculture and opportunities for promoting same. (1.4.2c)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of youth participating in education programs on the agriculture and food system and/or natural resource enterprises. (1.4.3a)
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- # of adults participating in education programs on the agriculture and food system and/or natural

resource enterprises. (1.4.3b)

Not reporting on this Output for this Annual Report

Output #7

Output Measure

- # non-credit instructional activities directed to this program.

Not reporting on this Output for this Annual Report

Output #8

Output Measure

- # non-credit instructional activity contact hours directed to this program.

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of communities that initiate specific plans to address agriculture/ horticulture/natural resource enterprise related issues or capitalize on new opportunities including community agriculture initiatives. (1.4.2h)
2	# documented instances in which agriculture/community onlicts are resolved locally. (1.4.1d)
3	# communities documented to adopt, maintain, or expand policies supportive of appropriate agriculture/horticulture/ natural resource enterprise development and/or community agriculture. (1.4.2i)
4	# of agriculture/horticulture/natural resource business persons demonstrating knowledge or skill gains related to potential environmental, health, social, and cultural impacts of their operations from the perspective of the community. (1.4.1b)
5	# of community members demonstrating knowledge or skill gains related to the roles of agriculture/horticulture/natural resource enterprises in the local community, tax base, and environment. (1.4.2d)
6	# of local leaders demonstrating knowledge or skill gains related to the roles of agriculture/horticulture/natural resource enterprises in the local community and how they are affected by local policy. (1.4.2e)
7	# of local community members and leaders demonstrating knowledge or skill gains related to the potential benefits of community-based agriculture and opportunities for promoting same. (1.4.2f)
8	# of youth demonstrating knowledge or skill gains related to the agriculture and food system and/or natural resource enterprises. (1.4.3c)
9	# of adults demonstrating knowledge or skill gains related to the agriculture and food system and/or natural resource enterprises. (1.4.3d)
10	# of instances in which producers/horticulture businesses/natural resource enterprises, residents and community leaders work together to address issues. (1.4.1c)
11	# of communities that assess how current policies and infrastructures sustain or impede agriculture/ horticulture/natural resource enterprises (such as farmland protection or including such enterprises in economic development planning). (1.4.2g)

Outcome #1

1. Outcome Measures

of communities that initiate specific plans to address agriculture/ horticulture/natural resource enterprise related issues or capitalize on new opportunities including community agriculture initiatives. (1.4.2h)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

documented instances in which agriculture/community onflicts are resolved locally. (1.4.1d)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

communities documented to adopt, maintain, or expand policies supportive of appropriate agriculture/horticulture/ natural resource enterprise development and/or community agriculture. (1.4.2i)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of agriculture/horticulture/natural resource business persons demonstrating knowledge or skill gains related to potential environmental, health, social, and cultural impacts of their operations from the perspective of the community. (1.4.1b)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of community members demonstrating knowledge or skill gains related to the roles of agriculture/horticulture/natural resource enterprises in the local community, tax base, and environment. (1.4.2d)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of local leaders demonstrating knowledge or skill gains related to the roles of agriculture/horticulture/natural resource enterprises in the local community and how they are affected by local policy. (1.4.2e)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of local community members and leaders demonstrating knowledge or skill gains related to the potential benefits of community-based agriculture and opportunities for promoting same. (1.4.2f)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

of youth demonstrating knowledge or skill gains related to the agriculture and food system and/or natural resource enterprises. (1.4.3c)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

of adults demonstrating knowledge or skill gains related to the agriculture and food system and/or natural resource enterprises. (1.4.3d)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

of instances in which producers/horticulture businesses/natural resource enterprises, residents and community leaders work together to address issues. (1.4.1c)

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

of communities that assess how current policies and infrastructures sustain or impede agriculture/horticulture/natural resource enterprises (such as farmland protection or including such enterprises in economic development planning). (1.4.2g)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 11

1. Name of the Planned Program

2.1 Connecting People to the Land and Their Environment

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
131	Alternative Uses of Land				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	25.0	0.0	1.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

Cornell Cooperative Extension faculty, extension and research associates and educators partner with community leaders and elected officials to promote educational strategies which lead to informed land use and natural resource decisions in the context of balanced long-term outcomes. Training, research and resources focus on a number of issues including land use education, land use impacts, rural-urban interface, farmland preservation, community based agricultural economic development, involving youth in community mapping, place based education, pedestrian friendly communities, affordable housing, use of open spaces, leadership development and community decision-making, residential and community horticultural education, and integrated pest management. Yet another approach to connecting people to their environments is fostering locally relevant economic development that builds on local resources, including people, capital, access to markets and natural resources, in a way that strengthens community and environmental assets.

2. Brief description of the target audience

Targeted groups include local elected officials and engaged community citizens. There is interest in developing a land use education curriculum for general citizens.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	20000	100000	1500	25000
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010

Plan: 0

Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of residents and community leaders participating in programs on community assets, citizen involvement, property rights, land use, conservation, interaction between environmental, economic, issues, quality of life issues. (2.1.1a)
Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # of non-credit instructional activities directed to this program.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of non-credit instructional hours directed to this program.
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of residents and/or community leaders demonstrating knowledge or skill gains related to community assets, property rights, land use, environmental conservation, interaction between environmental, economic issues, quality of life indicators. (2.1.1b)
2	# of community leaders documented to apply community economic development and quality of life indicators to support decision-making. (2.1.1c)
3	# of communities implementing projects that protect public health through sound environmental management. (2.1.1e)
4	# of municipalities adopting land use planning tools that incorporate environmental dimensions and/or develop new institutional arrangements to support land use planning and environmental management. (2.1.2a)
5	# of communities adopting or updating farmland preservation and/or agricultural economic development plans. (2.1.1b)
6	Increase in number of organizations and number of public/private partnerships with educational focus on environmental conservation (land, water, other natural resources). (2.1.2c)
7	# of communities that plan for development directed toward existing communities re broader range of housing types including affordable housing, focus on bikable and walkable communities, and/or a variety of transportation choices. (2.1.3a)
8	# instances in which communities are documented to have resolved agricultural-environmental conflicts and/or other land use/natural resource issues at least in part due to participation in the program. (2.1.1d)
9	# documented initiatives to increase public health and community well-being that take into account connections between work, civic life and residential patterns. (2.1.1f)
10	# of additional acres covered by open space preservation, environmental conservation and/or protection programs attributable at least in part to participation in the program. (2.1.2d)
11	Increase in percentage of food produced locally and regionally that is consumed locally or regionally. (2.1.2e)
12	# of instances in which communities institute changes leading to one of following: development directed toward existing communities, range of housing types, more bikable and/or walkable community, variety of transportation choices. (2.1.3c)
13	# of new or enhanced community organizations or networks linking diverse sub-groups and focused on enhancing community sustainability. (2.1.3d)
14	# of communities demonstrating greater balance of population across the age spectrum. (2.1.3e)
15	# of communities marketing what is distinct and unique about themselves. (2.1.3f)
16	# communities/regions adopting buy local campaigns. (2.1.3g)
17	# of residents and/or community leaders, who plan for and initiate steps to enhance public spaces. (2.1.3i)

18	# of residents and/or community leaders, demonstrating knowledge/ skill gains about enhancing public spaces. (2.1.3h)
19	# of communities documenting improvements in public spaces. (2.1.3j)

Outcome #1

1. Outcome Measures

of residents and/or community leaders demonstrating knowledge or skill gains related to community assets, property rights, land use, environmental conservation, interaction between environmental, economic issues, quality of life indicators. (2.1.1b)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of community leaders documented to apply community economic development and quality of life indicators to support decision-making. (2.1.1c)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of communities implementing projects that protect public health through sound environmental management. (2.1.1e)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of municipalities adopting land use planning tools that incorporate environmental dimensions and/or develop new institutional arrangements to support land use planning and environmental management. (2.1.2a)

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	75	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land

Outcome #5

1. Outcome Measures

of communities adopting or updating farmland preservation and/or agricultural economic development plans. (2.1.1b)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Increase in number of organizations and number of public/private partnerships with educational focus on environmental conservation (land, water, other natural resources). (2.1.2c)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of communities that plan for development directed toward existing communities re broader range of housing types including affordable housing, focus on bikable and walkable communities, and/or a variety of transportation choices. (2.1.3a)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

instances in which communities are documented to have resolved agricultural-environmental conflicts and/or other land use/natural resource issues at least in part due to participation in the program. (2.1.1d)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

documented initiatives to increase public health and community well-being that take into account connections between work, civic life and residential patterns. (2.1.1f)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

of additional acres covered by open space preservation, environmental conservation and/or protection programs attributable at least in part to participation in the program. (2.1.2d)

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

Increase in percentage of food produced locally and regionally that is consumed locally or regionally. (2.1.2e)

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

of instances in which communities institute changes leading to one of following: development directed toward existing communities, range of housing types, more bikable and/or walkable community, variety of transportation choices. (2.1.3c)

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

of new or enhanced community organizations or networks linking diverse sub-groups and focused on enhancing community sustainability. (2.1.3d)

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

of communities demonstrating greater balance of population across the age spectrum. (2.1.3e)

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

of communities marketing what is distinct and unique about themselves. (2.1.3f)

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

communities/regions adopting buy local campaigns. (2.1.3g)

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

of residents and/or community leaders, who plan for and initiate steps to enhance public spaces. (2.1.3i)

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

of residents and/or community leaders, demonstrating knowledge/ skill gains about enhancing public spaces. (2.1.3h)

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

of communities documenting improvements in public spaces. (2.1.3j)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)

- During (during program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 12

1. Name of the Planned Program

2.2 Strengthening Capacity for Community and Economic Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development				
805	Community Institutions, Health, and Social Services				
903	Communication, Education, and Information Delivery				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	60.0	0.0	2.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

Cornell Cooperative Extension Associations are uniquely positioned to provide unbiased assistance and education to communities in order for them to pursue their goals. Educators can provide the kind of initial facilitation and organizational skills necessary for successful visioning and action planning processes thereby assisting communities to improve or enhance their quality of life. Specific approaches for which we have resources: main street revitalization; community based entrepreneurial development; and strategic planning and visioning; technology-led economic development (via the EDA University Center).

Program staff work with a variety of state and local groups to tackle projects that that vary in nature from applied research to pilot projects or case studies. These activities, which are demand driven (locally or regionally initiated usually with sponsored or self-financing), provide valuable insights, resources and materials for extension education. This project work also provides innovative local government practitioners, professionals who work with local governments, and practitioner-professionals all of whom serve as a resource for our training and educational outreach. A variety of Cornell faculty, instructors and other professionals also serve as instructors, provide existing written and web resources and help develop needed resources for local government extension education. We utilize a number of strategies in conducting local government education.

2. Brief description of the target audience

The educational approach to community and economic renewal suggest multiple audiences and stakeholders working in a partnership mode (elected officials, community leaders, business leaders, not-for-profit agencies, youth serving agencies, schools, environmental groups, agribusiness leaders, etc.).

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	6500	50000	0	0
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional activity contact hours directed to this program.
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of residents, community leaders, entrepreneurs, econ. devel. professionals participating in programs re: workforce, entrepreneurial climate, diversification, economic impact analysis, e-commerce, market devel., business planning, partnerships. (2.2.1a)
 Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of community members participating in educational programs related to community decision-making, public participation, planning and monitoring processes, and collaborative approaches. (2.2.3a)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of economic developers and/or entrepreneurs participating in educational programs on "green" business opportunities. (2.2.4a)
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of residents, community leaders, entrepreneurs, econ. devel. professionals demon. knowledge/skill gains re: workforce, entrepreneurial climate, diversification, econ. impact analysis, e-commerce, market devel., business planning, partnerships. (2.2.1b)
2	# of community members demonstrating knowledge or skills gains related to community decision-making, public participation, planning and monitoring processes, collaborative approaches, and/or emergency preparedness. (2.2.3b)
3	# of economic developers and/or entrepreneurs demonstrating knowledge gains related to "green" business opportunities. (2.2.4b)
4	# of communities who plan for and implement initiatives re community based agric. econ. devel., main street revitalization, workforce development, business devel. and assistance, non-profit sector devel. and/or other elements of sustainable growth. (2.2.1c)
5	# of businesses initiated, retained, or expanded in a sustainable manner based on individual and community goals. (2.2.1a)
6	# of communities instituting new or enhanced participatory processes related to economic development. (2.2.3c)
7	# of communities developing vision statements and strategic plans and implement steps toward achieving their plans. (2.2.3d)
8	# of collaborative partnerships established within and across communities for issue resolution and collective action and/or to improve community services. (2.2.3e)
9	# of new "green" businesses established at least in part due to participation in the program. (2.2.4c)
10	# of communities establishing an infrastructure and climate to support entrepreneurs, local farms and agribusinesses attributable at least in part to initiatives of the program. (2.2.1e)
11	# of communities reporting that their local economies are increasingly diverse and developing in a sustainable manner attributable at least in part to participating in the program. (2.2.1f)
12	# of communities reporting increased retention or return of youth in their communities due to meaningful employment opportunities attributable at least in part to initiatives of the program. (2.2.2c)
13	# of documented instances in which a community effectively resolves a need or strengthens community assets attributable at least in part to participation in the program. (2.2.3f)
14	# of communities that report increased diversification of their local economies attributable at least in part to participation in the program. (2.2.4d)
15	# of residents and/or community leaders, demonstrating knowledge/skill gains about enhancing facilities and/or other community resources or services. (2.2.1g)
16	# of residents and/or community leaders, who plan for and initiate steps to enhance facilities, and/or other community resources or services. (2.2.1h) (Extension)
17	# of communities documenting improvements in facilities and/or other community resources or services. (2.2.1i)

18	# of employers establishing or contributing to community-based workforce development approaches. (2.2.2a)
19	# of employers reporting enhanced workforce availability attributable at least in part to participation in the program. (2.2.2b)
20	# of residents and/or community leaders, who plan for and initiate steps to enhance facilities, and/or other community resources or services. (2.2.1h) (Research)

Outcome #1

1. Outcome Measures

of residents, community leaders, entrepreneurs, econ. devel. professionals demon. knowledge/skill gains re: workforce, entrepreneurial climate, diversification, econ. impact analysis, e-commerce, market devel., business planning, partnerships. (2.2.1b)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of community members demonstrating knowledge or skills gains related to community decision-making, public participation, planning and monitoring processes, collaborative approaches, and/or emergency preparedness. (2.2.3b)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of economic developers and/or entrepreneurs demonstrating knowledge gains related to "green" business opportunities. (2.2.4b)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of communities who plan for and implement initiatives re community based agric. econ. devel., main street revitalization, workforce development, business devel. and assistance, non-profit sector devel. and/or other elements of sustainable growth. (2.2.1c)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of businesses initiated, retained, or expanded in a sustainable manner based on individual and community goals. (2.2.1a)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of communities instituting new or enhanced participatory processes related to economic development. (2.2.3c)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of communities developing vision statements and strategic plans and implement steps toward achieving their plans. (2.2.3d)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

of collaborative partnerships established within and across communities for issue resolution and collective action and/or to improve community services. (2.2.3e)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

of new "green" businesses established at least in part due to participation in the program. (2.2.4c)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

of communities establishing an infrastructure and climate to support entrepreneurs, local farms and agribusinesses attributable at least in part to initiatives of the program. (2.2.1e)

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

of communities reporting that their local economies are increasingly diverse and developing in a sustainable manner attributable at least in part to participating in the program. (2.2.1f)

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

of communities reporting increased retention or return of youth in their communities due to meaningful employment opportunities attributable at least in part to initiatives of the program. (2.2.2c)

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

of documented instances in which a community effectively resolves a need or strengthens community assets attributable at least in part to participation in the program. (2.2.3f)

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

of communities that report increased diversification of their local economies attributable at least in part to participation in the program. (2.2.4d)

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

of residents and/or community leaders, demonstrating knowledge/skill gains about enhancing facilities and/or other community resources or services. (2.2.1g)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services
903	Communication, Education, and Information Delivery

Outcome #16

1. Outcome Measures

of residents and/or community leaders, who plan for and initiate steps to enhance facilities, and/or other community resources or services. (2.2.1h) (Extension)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	150	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services
903	Communication, Education, and Information Delivery

Outcome #17

1. Outcome Measures

of communities documenting improvements in facilities and/or other community resources or services. (2.2.1i)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	35	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services
903	Communication, Education, and Information Delivery

Outcome #18

1. Outcome Measures

of employers establishing or contributing to community-based workforce development approaches. (2.2.2a)

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

of employers reporting enhanced workforce availability attributable at least in part to participation in the program. (2.2.2b)

Not Reporting on this Outcome Measure

Outcome #20

1. Outcome Measures

of residents and/or community leaders, who plan for and initiate steps to enhance facilities, and/or other community resources or services. (2.2.1h) (Research)

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	150	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services
903	Communication, Education, and Information Delivery

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 13

1. Name of the Planned Program

3.1 Health, Nutrition, and Food Safety

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
501	New and Improved Food Processing Technologies				
502	New and Improved Food Products				
503	Quality Maintenance in Storing and Marketing Food Products				
701	Nutrient Composition of Food				
702	Requirements and Function of Nutrients and Other Food Components				
703	Nutrition Education and Behavior				
704	Nutrition and Hunger in the Population				
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources				
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins				
722	Zoonotic Diseases and Parasites Affecting Humans				
723	Hazards to Human Health and Safety				
724	Healthy Lifestyle				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	325.0	0.0	50.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a comprehensive, statewide educational program entailing multiple education methods depending on local context and need. Campus-based faculty and extension associates and county-based educators are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

Audiences reached include: moderate and low income families; 4-H youth; nutrition, health, and family professionals; front-line family workers; food service and food production staff and their managers and directors; and government and agency leaders at the local, state, and federal level.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	55000	250000	20000	100000
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 25
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional hours directed to this program.
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of children, youth, and adults completing education programs on: food, nutrition and health topics including attitudes about healthy eating, food choices, selection of healthy foods, preparation of healthy foods, and active living. (3.1.1a)
 Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of women and health providers completing education programs addressing healthy weight gain during pregnancy and breastfeeding. (3.1.1b)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of community members completing educational programs on issues that influence food and health behavior and associated appropriate actions including obesity prevention programs and policy. (3.1.1c)
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- # of children, youth, and adults completing education programs on: identifying food insecurity, obtaining food assistance, balancing available resources by planning food choices, and lack of sufficient quality food/ hunger. (3.1.2a)
Not reporting on this Output for this Annual Report

Output #7

Output Measure

- # of policy makers and citizens participating in education programs on status of food security in their communities and possible actions to promote increased food security. (3.1.2b)
Not reporting on this Output for this Annual Report

Output #8

Output Measure

- # of participants in programs on: reducing food safety and/or food borne risks and illnesses including recommended food purchase, storage, handling, and preparation practices. (3.1.3a)
Not reporting on this Output for this Annual Report

Output #9

Output Measure

- # extension educators and/or volunteers participating in programs to enhance educational opportunities for youth related to healthy living. (3.1.1n)
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of program participants who demonstrate knowledge or skill gains related to food, nutrition and health topics including: attitudes about healthy eating, healthy food choices, selection of healthy foods, preparation of healthy foods, and benefits of healthy living. (3.1.1d)
2	# of program participants who demonstrate knowledge or skill gains related to healthy weight gain during pregnancy and breast feeding. (3.1.1e)
3	# of program participants who demonstrate knowledge or skill gains related to issues that influence food and health behavior and associated appropriate school/public/community actions, programs, and policy. (3.1.1f)
4	# of program participants who demonstrate knowledge or skill gains related to status of food security in their communities and possible actions to promote increased food security. (3.1.2c)
5	# of program participants who know what to do related to food insecurity problems such as actions to obtain food assistance, balance available resources by planning food choices, and lack sufficient quality food/hunger. (3.1.2d)
6	# of program participants who demonstrate knowledge or skill gains related to reducing food safety and/or food borne risks and illnesses including recommended food purchase, storage, handling, and preparation practices. (3.1.3b)
7	# of adult program participants documented to have applied healthy eating, active living, and/or food safety recommendations. (3.1.1g)
8	# of program participants documented to have managed food budgets and related resources to meet family needs. (3.1.1h)
9	# of program participants documented to have increased participation in public/community health-related programs. (3.1.1i)
10	# of program participants documented to have reduced one or more chronic disease indicators. (3.1.1j)
11	# of participating schools and/or communities documented to have made practice and policy changes to promote healthy eating and active living. (3.1.1k)
12	# of program participants who have acted to improve their food security status. (3.1.2e)
13	# of participating communities that assess food insecurity and develop appropriate action plans. (3.1.2f)
14	# of household and food handler participants documented to have increased application of safe food preparation practices (storage, preparation, and serving, i.e, HACCP standards. (3.1.3c)
15	# of vulnerable children, youth and members of other priority groups documented to have reduced incidence of overweight and obesity as a result of participating in relevant educational programs. (3.1.1l)
16	# of participating schools and/or communities reporting decline in incidence of overweight and/or indicators of chronic diseases associated with obesity. (3.1.1m)

17	# of individuals or households documented to have improved food security status. (3.1.2h)
18	# of participating communities reporting declines in food insecurity indicators. (3.1.2i)
19	# of communities/firms/or organizations documented to have implemented improved practices or food safety policies as a result of participating in relevant educational programs. (3.1.3d)
20	# extension educators and/or volunteers demonstrating knowledge or skill gains related to enhanced educational opportunities for youth related to healthy living. (3.1.1o)
21	# of youth program participants documented to have applied healthy eating, active living, and/or food safety recommendations. (3.1.1p)
22	# extension educators and/or volunteers reporting increased delivery of healthy living-related programs for youth. (3.1.1q)

Outcome #1

1. Outcome Measures

of program participants who demonstrate knowledge or skill gains related to food, nutrition and health topics including: attitudes about healthy eating, healthy food choices, selection of healthy foods, preparation of healthy foods, and benefits of healthy living. (3.1.1d)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of program participants who demonstrate knowledge or skill gains related to healthy weight gain during pregnancy and breast feeding. (3.1.1e)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of program participants who demonstrate knowledge or skill gains related to issues that influence food and health behavior and associated appropriate school/public/community actions, programs, and policy. (3.1.1f)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of program participants who demonstrate knowledge or skill gains related to status of food security in their communities and possible actions to promote increased food security. (3.1.2c)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of program participants who know what to do related to food insecurity problems such as actions to obtain food assistance, balance available resources by planning food choices, and lack sufficient quality food/hunger. (3.1.2d)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of program participants who demonstrate knowledge or skill gains related to reducing food safety and/or food borne risks and illnesses including recommended food purchase, storage, handling, and preparation practices. (3.1.3b)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of adult program participants documented to have applied healthy eating, active living, and/or food safety recommendations. (3.1.1g)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

of program participants documented to have managed food budgets and related resources to meet family needs. (3.1.1h)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

of program participants documented to have increased participation in public/community health-related programs. (3.1.1i)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

of program participants documented to have reduced one or more chronic disease indicators. (3.1.1j)

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

of participating schools and/or communities documented to have made practice and policy changes to promote healthy eating and active living. (3.1.1k)

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

of program participants who have acted to improve their food security status. (3.1.2e)

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

of participating communities that assess food insecurity and develop appropriate action plans. (3.1.2f)

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

of household and food handler participants documented to have increased application of safe food preparation practices (storage, preparation, and serving, i.e, HACCP standards. (3.1.3c)

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

of vulnerable children, youth and members of other priority groups documented to have reduced incidence of overweight and obesity as a result of participating in relevant educational programs. (3.1.1l)

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

of participating schools and/or communities reporting decline in incidence of overweight and/or indicators of chronic diseases associated with obesity. (3.1.1m)

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

of individuals or households documented to have improved food security status. (3.1.2h)

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

of participating communities reporting declines in food insecurity indicators. (3.1.2i)

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

of communities/firms/or organizations documented to have implemented improved practices or food safety policies as a result of participating in relevant educational programs. (3.1.3d)

Not Reporting on this Outcome Measure

Outcome #20

1. Outcome Measures

extension educators and/or volunteers demonstrating knowledge or skill gains related to enhanced educational opportunities for youth related to healthy living. (3.1.1o)

Not Reporting on this Outcome Measure

Outcome #21

1. Outcome Measures

of youth program participants documented to have applied healthy eating, active living, and/or food safety recommendations. (3.1.1p)

Not Reporting on this Outcome Measure

Outcome #22

1. Outcome Measures

extension educators and/or volunteers reporting increased delivery of healthy living-related programs for youth. (3.1.1q)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)
- Comparisons between program participants (individuals, group, organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 14

1. Name of the Planned Program

3.2 Human Development and Social Well Being

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	80.0	0.0	1.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a comprehensive, statewide educational program entailing multiple education methods depending on local context and need. Campus-based faculty and extension associates and county-based educators are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

Key audiences served, directly and indirectly, include: parents, grandparents and other relative caregivers who are parenting children; child and elder care workers and their supervisors and program directors; community stakeholders such as employers, leaders and policy makers at the local and state levels.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	20000	100000	0	0
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010

Plan: 0

Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional hours directed to this program.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of care-giving professionals who complete non-formal education programs about quality dependant care giving. (3.2.1a)
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of persons with care-requiring dependants completing non-formal education programs on selection of care-giving individuals and facilities. (3.2.1b)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of organizations, agencies, and institutions participating in non-formal educational programs about social and public policy issues to enhance opportunities for safe, economical, and developmentally appropriate care-giving programs for infants, children, youth, and older adults. (3.2.2a)
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- # of persons completing complete non-formal education programs about parenting. (3.2.3a)

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of participating care-giving professionals who demonstrate knowledge or skill gains related to quality care-giving practices. (3.2.1c)
2	# of participating persons with care-requiring dependents who demonstrate ability to evaluate the quality of care programs to determine appropriate placement for their family members or others. (3.2.1d)
3	# of program participants who demonstrate knowledge or skills gains regarding community approaches to family care. (3.2.2b)
4	# parents, grandparents and other adults providing parental care gaining who demonstrate knowledge or skills gains regarding developmentally appropriate and effective parenting methods. (3.2.3b)
5	# of participating care-giving professionals reporting to have applied positive care-giving practices. (3.2.1e)
6	# participating persons with care-requiring dependents reporting to have used child care quality characteristics in their care selection. (3.2.1f)
7	# of program participants reporting to have been involved in community level assessments of family care needs. (3.2.2c)
8	# parents and other adults providing parental care adopting developmentally appropriate and effective parenting methods. (3.2.3c)
9	# of care-giving providers reporting improved dependant care as a result of participating in educational programs. (3.2.1g)
10	# participating persons with care-requiring dependents reporting positive change in dependant care as a result of participating in educational programs. (3.2.1h)
11	# of communities documented to have taken action to family needs that can be related to educational programs and/or critical community collaborations provided. (3.2.2d)
12	# of parents/relative caregivers reporting to have experienced positive change in parent-child relationships and child nurturance that they attribute to implementing new parenting behaviors learned in educational programs. (3.2.3d)

Outcome #1

1. Outcome Measures

of participating care-giving professionals who demonstrate knowledge or skill gains related to quality care-giving practices. (3.2.1c)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of participating persons with care-requiring dependents who demonstrate ability to evaluate the quality of care programs to determine appropriate placement for their family members or others. (3.2.1d)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of program participants who demonstrate knowledge or skills gains regarding community approaches to family care. (3.2.2b)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

parents, grandparents and other adults providing parental care gaining who demonstrate knowledge or skills gains regarding developmentally appropriate and effective parenting methods. (3.2.3b)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of participating care-giving professionals reporting to have applied positive care-giving practices. (3.2.1e)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

participating persons with care-requiring dependents reporting to have used child care quality characteristics in their care selection. (3.2.1f)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of program participants reporting to have been involved in community level assessments of family care needs. (3.2.2c)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

parents and other adults providing parental care adopting developmentally appropriate and effective parenting methods. (3.2.3c)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

of care-giving providers reporting improved dependant care as a result of participating in educational programs. (3.2.1g)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

participating persons with care-requiring dependents reporting positive change in dependant care as a result of participating in educational programs. (3.2.1h)

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

of communities documented to have taken action to family needs that can be related to educational programs and/or critical community collaborations provided. (3.2.2d)

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

of parents/relative caregivers reporting to have experienced positive change in parent-child relationships and child nurturance that they attribute to implementing new parenting behaviors learned in educational programs. (3.2.3d)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- During (during program)
- Other (Control Study Group)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 15

1. Name of the Planned Program

3.3 Economic Well Being, Quality of Home and Work Environments

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
607	Consumer Economics				
801	Individual and Family Resource Management				
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	30.0	0.0	3.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a comprehensive, statewide educational program entailing multiple education methods depending on local context and need. Campus-based faculty and extension associates and county-based educators are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

- Low and moderate-income households who are especially vulnerable to financial setbacks and have less disposable income to commit to savings.
- Low-income households living in poor-quality housing.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	15000	250000	3000	75000
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional activity contact hours directed to this program.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of persons completing education programs on age-appropriate topics like spending and saving concepts, appropriate use of money, financial goals, tracking expenses, budgeting, credit management, financial planning, and/or wealth generation strategies. (3.3.1a)
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of consumers and property managers completing programs on indoor air quality issues. (3.3.2a)
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# participants who demonstrate knowledge or skill gains and/or can articulate specific actions they will take related to spending and saving concepts, appropriate use of money, setting financial goals, tracking expenses, budgeting, credit management, financial planning, and/or wealth generation strategies. (3.3.1b)
2	# of consumers and property managers gaining awareness and knowledge of indoor air quality issues and remediation options. (3.3.2b)
3	# of program participants reporting they are practicing wise money management skills such as comparison shopping, paying bills on time, paying more than minimum payment, checking credit report, and reviewing and understanding bills/statements as a means to meeting financial goals. (3.3.1c)
4	# of program participants documented to have used standard practices such as timely bill payment to meet financial life planning goals. (3.3.1e)
5	# of program participants documented to have taken measures to prevent or remediate indoor air quality issues. (3.3.2c)
6	# of program participants documented to have reduced short-term health effects of indoor air pollutants (such as irritation of the eyes, nose, and throat, headaches, dizziness, and fatigue) as a result of participating in educational programs. (3.3.2d)
7	# of program participants reporting to have met day-to-day financial obligations while also progressing on future goals for homeownership, savings, retirement accounts, etc. (3.3.1d)
8	# of participants reducing risks of respiratory diseases, heart disease, and cancer by impl. measures such as radon remediation, controlling indoor triggers of asthma: secondhand smoke, dust mites, pet dander, and pests. (3.3.2e)

Outcome #1

1. Outcome Measures

participants who demonstrate knowledge or skill gains and/or can articulate specific actions they will take related to spending and saving concepts, appropriate use of money, setting financial goals, tracking expenses, budgeting, credit management, financial planning, and/or wealth generation strategies. (3.3.1b)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of consumers and property managers gaining awareness and knowledge of indoor air quality issues and remediation options. (3.3.2b)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of program participants reporting they are practicing wise money management skills such as comparison shopping, paying bills on time, paying more than minimum payment, checking credit report, and reviewing and understanding bills/statements as a means to meeting financial goals. (3.3.1c)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of program participants documented to have used standard practices such as timely bill payment to meet financial life planning goals. (3.3.1e)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of program participants documented to have taken measures to prevent or remediate indoor air quality issues. (3.3.2c)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of program participants documented to have reduced short-term health effects of indoor air pollutants (such as irritation of the eyes, nose, and throat, headaches, dizziness, and fatigue) as a result of participating in educational programs. (3.3.2d)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of program participants reporting to have met day-to-day financial obligations while also progressing on future goals for homeownership, savings, retirement accounts, etc. (3.3.1d)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

of participants reducing risks of respiratory diseases, heart disease, and cancer by impl. measures such as radon remediation, controlling indoor triggers of asthma: secondhand smoke, dust mites, pet dander, and pests. (3.3.2e)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 16

1. Name of the Planned Program

4.1 Natural Resource Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources				
102	Soil, Plant, Water, Nutrient Relationships				
104	Protect Soil from Harmful Effects of Natural Elements				
123	Management and Sustainability of Forest Resources				
124	Urban Forestry				
125	Agroforestry				
132	Weather and Climate				
134	Outdoor Recreation				
135	Aquatic and Terrestrial Wildlife				
136	Conservation of Biological Diversity				
214	Vertebrates, Mollusks, and Other Pests Affecting Plants				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	40.0	0.0	12.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a statewide educational program entailing a wide range of applied research activities and multiple education methods depending on local context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

Residents and property owners are targeted with stewardship and natural resources protection for their properties. Businesses, organizations, and producers are targeted with information improved management practices and alternative land uses, such as agroforestry. Local government and community leaders are targeted with information related to governmental management of natural resources, such as land use planning and open space preservation. Environmental planners and managers and technical assistance providers, such as foresters, are targeted with in-depth information related to their audiences/constituents.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	25000	150000	10000	55000
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional activity contact hours directed to this program.
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of agricultural/ natural resources producers and business representatives completing educational programs on managing natural resources, invasive species, and/or biodiversity.
 (4.1.1a)
 Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of organization and business representatives completing educational programs on managing natural resources, invasive species, and/or biodiversity. (4.1.2a)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of local government officials and community leaders completing educational programs on managing natural resources, invasive species, open space preservation, alternative land uses and/or biodiversity. (4.1.3a)
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- # of consumers, residents, and landowners completing educational programs on natural resources protection, invasive species, and/or biodiversity. (4.1.4a)
Not reporting on this Output for this Annual Report

Output #7

Output Measure

- # of teachers and youth professionals and volunteers completing educational programs on natural resources protection, invasive species, and/or biodiversity. (4.1.5a)
Not reporting on this Output for this Annual Report

Output #8

Output Measure

- # of youth completing educational programs on natural resources protection, invasive species, and/or biodiversity. (4.1.6a)
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Documented instances in which implementation of natural resources management practices and/or land use policies lead to increased open space preservation, enhanced or protected natural resources, enhanced biodiversity, and/or increases in alternative land use. (4.1.3f)
2	Increased local economic activities attributable at least in part to enhanced natural resources management and/or increased alternative land uses. (4.1.3g)
3	Documented instances in which implementation of natural resources management practices by individual consumers, residents, and/or private landowners lead to increased open space preservation, enhanced or protected natural resources, enhanced biodiversity. (4.1.4d)
4	# of youth documented to have chosen natural resources-related careers. (4.1.6e)
5	Documented instances in which implementation of natural resources management practices by agricultural/natural resources producers or other business persons lead to increased open space preservation, enhanced/protected natural resources, biodiversity and/or land use. (4.1.1d)
6	# of agricultural/natural resources producers and business representatives who demonstrate knowledge gains about managing natural resources, invasive species, and/or biodiversity. (4.1.1b)
7	# of organization and business representatives who demonstrate knowledge gains about managing natural resources, invasive species, and/or biodiversity. (4.1.2b)
8	# of local government officials and community leaders who demonstrate knowledge gains about managing natural resources, invasive species, open space preservation, alternative land uses and/or biodiversity. (4.1.3b)
9	# of consumers, residents, and landowners who demonstrate knowledge gains about natural resources management, invasive species, and/or biodiversity. (4.1.4b)
10	# of teachers and youth professionals and volunteers who demonstrate knowledge gains about natural resources management, invasive species and/or biodiversity. (4.1.5b)
11	# of youth who demonstrate knowledge gains about natural resources management, invasive species and/or biodiversity. (4.1.6b)
12	# of agricultural/natural resources producers and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance natural resources and/or enhance biodiversity. (4.1.1c)
13	# of organization and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance natural resources and/or enhance biodiversity. (4.1.2c)
14	# of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance natural resources and/or enhance biodiversity. (4.1.3c)
15	# of communities documented to have thoroughly assessed the status of their natural resources. (4.1.3d)
16	# of producers, businesses, local governments, organizations, landowners, and individuals collaborate to develop and implement natural resources management strategies. (4.1.3e)

17	# of consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance natural resources and/or enhance biodiversity. (4.1.4c)
18	# of teachers and youth professionals and volunteers who incorporate natural resources management and/or biodiversity knowledge into curriculum. (4.1.5c)
19	# of youth documented to have modified existing practices and/or adopted new practices to protect/enhance natural resources and/or enhance biodiversity. (4.1.6c)
20	# of youth introduced to variety of environmental and natural resources career options. (4.1.6d)

Outcome #1

1. Outcome Measures

Documented instances in which implementation of natural resources management practices and/or land use policies lead to increased open space preservation, enhanced or protected natural resources, enhanced biodiversity, and/or increases in alternative land use. (4.1.3f)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Increased local economic activities attributable at least in part to enhanced natural resources management and/or increased alternative land uses. (4.1.3g)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Documented instances in which implementation of natural resources management practices by individual consumers, residents, and/or private landowners lead to increased open space preservation, enhanced or protected natural resources, enhanced biodiversity. (4.1.4d)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of youth documented to have chosen natural resources-related careers. (4.1.6e)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Documented instances in which implementation of natural resources management practices by agricultural/natural resources producers or other business persons lead to increased open space preservation, enhanced/protected natural resources, biodiversity and/or land use. (4.1.1d)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of agricultural/natural resources producers and business representatives who demonstrate knowledge gains about managing natural resources, invasive species, and/or biodiversity. (4.1.1b)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of organization and business representatives who demonstrate knowledge gains about managing natural resources, invasive species, and/or biodiversity. (4.1.2b)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

of local government officials and community leaders who demonstrate knowledge gains about managing natural resources, invasive species, open space preservation, alternative land uses and/or biodiversity. (4.1.3b)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

of consumers, residents, and landowners who demonstrate knowledge gains about natural resources management, invasive species, and/or biodiversity. (4.1.4b)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

of teachers and youth professionals and volunteers who demonstrate knowledge gains about natural resources management, invasive species and/or biodiversity. (4.1.5b)

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

of youth who demonstrate knowledge gains about natural resources management, invasive species and/or biodiversity. (4.1.6b)

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

of agricultural/natural resources producers and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance natural resources and/or enhance biodiversity. (4.1.1c)

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	500	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
125	Agroforestry
132	Weather and Climate
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity
214	Vertebrates, Mollusks, and Other Pests Affecting Plants

Outcome #13

1. Outcome Measures

of organization and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance natural resources and/or enhance biodiversity. (4.1.2c)

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	200	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
123	Management and Sustainability of Forest Resources
125	Agroforestry
132	Weather and Climate
135	Aquatic and Terrestrial Wildlife
136	Conservation of Biological Diversity
214	Vertebrates, Mollusks, and Other Pests Affecting Plants

Outcome #14

1. Outcome Measures

of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance natural resources and/or enhance biodiversity. (4.1.3c)

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

of communities documented to have thoroughly assessed the status of their natural resources. (4.1.3d)

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

of producers, businesses, local governments, organizations, landowners, and individuals collaborate to develop and implement natural resources management strategies. (4.1.3e)

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

of consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance natural resources and/or enhance biodiversity. (4.1.4c)

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

of teachers and youth professionals and volunteers who incorporate natural resources management and/or biodiversity knowledge into curriculum. (4.1.5c)

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

of youth documented to have modified existing practices and/or adopted new practices to protect/enhance natural resources and/or enhance biodiversity. (4.1.6c)

Not Reporting on this Outcome Measure

Outcome #20

1. Outcome Measures

of youth introduced to variety of environmental and natural resources career options. (4.1.6d)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 17

1. Name of the Planned Program

4.2 Water Resources Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
111	Conservation and Efficient Use of Water				
112	Watershed Protection and Management				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	20.0	0.0	7.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a statewide educational program entailing a wide range of applied research activities and multiple education methods depending on local context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

Residents and property owners are targeted with stewardship and water resources protection in their homes and on their properties. Businesses, organizations, and producers are targeted with information about reducing impacts of their operations. Local government and community leaders are targeted with information related to governmental management of water resources, such as land use planning. Environmental planners and managers and technical assistance providers are targeted with in-depth information related to their audiences/constituents. Teachers, youth professionals and volunteers are targeted with in-depth knowledge relevant to youth. Youth of all ages are provided with age and grade appropriate knowledge about water resources; activities to increase stewardship; and information about career opportunities.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	20000	250000	5000	15000
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010

Plan: 0

Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional hours directed to this program.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of agricultural/natural resources producers and business representatives completing educational programs on managing water resources. (4.2.1a)
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of organization and business representatives completing educational programs on managing water resources. (4.2.2a)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of local government officials and community leaders completing educational programs on managing water resources and the relationship between water resources and land use management. (4.2.3a)
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- # of consumers, residents, and landowners completing educational programs on water resources protection. (4.2.4a)
Not reporting on this Output for this Annual Report

Output #7

Output Measure

- # of teachers and youth professionals and volunteers completing educational programs on water resources. (4.2.5a)
Not reporting on this Output for this Annual Report

Output #8

Output Measure

- # of youth completing educational programs on water resources protection. (4.2.6a)
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of agricultural/natural resources producers and business representatives who demonstrate knowledge gains about managing water resources. (4.2.1b)
2	# of organization and business representatives who demonstrate knowledge gains about managing water resources. (4.2.2b)
3	# of local government officials and community leaders who demonstrate knowledge gains about managing water resources and the relationship between water resources and land use management. (4.2.3b)
4	# of consumers, residents, and landowners who demonstrate knowledge gains about water resources protection. (4.2.4b)
5	# of teachers and youth professionals and volunteers who demonstrate knowledge gains about water resources protection. (4.2.5b)
6	# of youth who demonstrate knowledge gains about water resources protection. (4.2.6b)
7	# of agricultural/natural resources producers and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.1c)
8	# of organization and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.2c)
9	# of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.3c)
10	# of communities documented to have thoroughly assessed the status of their water resources. (4.2.3d)
11	# of producers, businesses, local governments, organizations, landowners, and individuals that collaborate to develop and implement water resources management strategies. (4.2.3e)
12	# of consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.4c)
13	# of teachers and youth professionals and volunteers who incorporate water resources management knowledge into curriculum. (4.2.5c)
14	# of youth documented to have modified existing practices and/or adopted new practices to protect/enhance water resources. (4.2.6c)
15	# of youth introduced to variety of environmental and natural resources career options. (4.2.6d)
16	# of agricultural/natural resources producers and business representatives documented to have improved and/or protected water resources. (4.2.1d)
17	Documented instances in which resource managers credit Implementation of improved water resources management practices for lower costs for remediation. (4.2.2d)

18	# of communities documented to have established or modified land use and development policies to enhance and protect water resources. (4.2.3f)
19	# of youth documented to have chosen water resources-related careers. (4.2.6e)
20	Documented instances in which resource managers credit improved groundwater and surface water quality, decreased flooding, and/or decreased over-use of water supplies to implementation of improved water resources management practices. (4.2.7a)
21	Documented instances in which public health officials credit decreased public health risks to implementation of improved water resources management practices. (4.2.7b)
22	# consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.4d)

Outcome #1

1. Outcome Measures

of agricultural/natural resources producers and business representatives who demonstrate knowledge gains about managing water resources. (4.2.1b)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of organization and business representatives who demonstrate knowledge gains about managing water resources. (4.2.2b)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of local government officials and community leaders who demonstrate knowledge gains about managing water resources and the relationship between water resources and land use management. (4.2.3b)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of consumers, residents, and landowners who demonstrate knowledge gains about water resources protection. (4.2.4b)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of teachers and youth professionals and volunteers who demonstrate knowledge gains about water resources protection. (4.2.5b)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of youth who demonstrate knowledge gains about water resources protection. (4.2.6b)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of agricultural/natural resources producers and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.1c)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

of organization and business representatives documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.2c)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.3c)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

of communities documented to have thoroughly assessed the status of their water resources. (4.2.3d)

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

of producers, businesses, local governments, organizations, landowners, and individuals that collaborate to develop and implement water resources management strategies. (4.2.3e)

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

of consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources. (4.2.4c)

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

of teachers and youth professionals and volunteers who incorporate water resources management knowledge into curriculum. (4.2.5c)

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

of youth documented to have modified existing practices and/or adopted new practices to protect/enhance water resources. (4.2.6c)

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

of youth introduced to variety of environmental and natural resources career options. (4.2.6d)

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

of agricultural/natural resources producers and business representatives documented to have improved and/or protected water resources. (4.2.1d)

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

Documented instances in which resource managers credit Implementation of improved water resources management practices for lower costs for remediation. (4.2.2d)

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

of communities documented to have established or modified land use and development policies to enhance and protect water resources. (4.2.3f)

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

of youth documented to have chosen water resources-related careers. (4.2.6e)

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	0	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management

Outcome #20

1. Outcome Measures

Documented instances in which resource managers credit improved groundwater and surface water quality, decreased flooding, and/or decreased over-use of water supplies to implementation of improved water resources management practices. (4.2.7a)

Not Reporting on this Outcome Measure

Outcome #21

1. Outcome Measures

Documented instances in which public health officials credit decreased public health risks to implementation of improved water resources management practices. (4.2.7b)

Not Reporting on this Outcome Measure

Outcome #22

1. Outcome Measures

consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new management practices to protect/enhance water resources.
(4.2.4d)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 18

1. Name of the Planned Program

4.3 Waste Management and Prevention

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
133	Pollution Prevention and Mitigation				
403	Waste Disposal, Recycling, and Reuse				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	10.0	0.0	6.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a statewide educational program entailing a wide range of applied research activities and multiple education methods depending on local context and need. Campus-based faculty and extension associates, regional specialists and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

Residents and property owners are targeted with stewardship and waste reduction and management in their homes and on their properties. Businesses, organizations, and producers are targeted with information about reducing impacts of their operations. Local government and community leaders are targeted with information related to governmental management of waste, such as relationship between waste management and land use, effective recycling programs, and roadkill management. Environmental planners and managers and technical assistance providers are targeted with in-depth information related to their audiences/constituents. Teachers and youth professionals and volunteers are provided with curriculum and training. Youth are targeted with age appropriate education.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	5000	50000	2500	5000
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional activity contact hours directed to this program.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of agricultural/natural resources producers and business representatives completing educational programs on managing and reducing waste. (4.3.1a)
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of organization and business representatives completing educational programs on managing and reducing waste. (4.3.2a)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of local government officials and community leaders completing educational programs on managing and reducing waste and the relationship between waste and land use management. (4.3.4a)
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- # of consumers, residents, and landowners completing educational programs on waste reduction and management. (4.3.5a)
Not reporting on this Output for this Annual Report

Output #7

Output Measure

- # of youth completing educational programs on waste management and reduction. (4.3.6a)
Not reporting on this Output for this Annual Report

Output #8

Output Measure

- # of teachers and youth professionals and volunteers completing educational programs on waste management and reduction. (4.3.7a)
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of agricultural/natural resources producers and business representatives who demonstrate knowledge gains about waste management and reduction. (4.3.1b)
2	# of organization and business representatives who demonstrate knowledge gains about waste management and reduction. (4.3.2b)
3	# of local government officials and community leaders who demonstrate knowledge gains about waste management and reduction and the relationship between waste and land use management. (4.3.4b)
4	# of consumers, residents, and landowners who demonstrate knowledge gains about waste management and reduction. (4.3.5b)
5	# of youth who demonstrate knowledge gains about waste management and reduction. (4.3.6b)
6	# of teachers and youth professionals and volunteers who demonstrate knowledge gains about waste management and reduction. (4.3.7b)
7	# of agricultural/natural resources producers and business representatives documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.1c)
8	# of organization and business representatives documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.2c)
9	# of producers, businesses, local governments, organizations, landowners, and individuals who collaborate to develop and implement waste reduction and management strategies. (4.3.3a)
10	# of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.4c)
11	# of consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.5c)
12	# of youth documented to have modified existing practices and/or adopted new practices to manage and reduce waste. (4.3.6c)
13	# of youth introduced to variety of environmental and natural resources career options. (4.3.6d)
14	# of teachers and youth professionals and volunteers who incorporate waste reduction and management knowledge into curriculum. (4.3.7c)
15	# of agricultural/natural resources producers and business representatives documented to have improved waste management practices. (4.3.1d)
16	# Documented instances in which resource managers credit lower costs for remediation to implementation of improved waste management practices. (4.3.2d)
17	Documented instances in which resource managers credit reduced risk from waste handling and disposal; decreased waste volume; and improved environmental equity to implementation of improved waste management practices. (4.3.3b)

18	# of local government officials and community leaders documented to have established or modified waste management policies to enhance and protect land and water resources. (4.3.4d)
19	# of consumers, residents, and/or landowners, documented to have improved waste management practices. (4.3.5d)
20	# of youth documented to have chosen waste management-related careers. (4.3.6e)
21	Documented instances in which public health officials credit decreased public health risks to implementation of improved waste management practices. (4.3.8a)
22	Documented instances in which resource managers credit lower costs for remediation to implementation of improved waste management practices. (4.3.8b)

Outcome #1

1. Outcome Measures

of agricultural/natural resources producers and business representatives who demonstrate knowledge gains about waste management and reduction. (4.3.1b)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of organization and business representatives who demonstrate knowledge gains about waste management and reduction. (4.3.2b)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of local government officials and community leaders who demonstrate knowledge gains about waste management and reduction and the relationship between waste and land use management. (4.3.4b)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of consumers, residents, and landowners who demonstrate knowledge gains about waste management and reduction. (4.3.5b)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of youth who demonstrate knowledge gains about waste management and reduction. (4.3.6b)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of teachers and youth professionals and volunteers who demonstrate knowledge gains about waste management and reduction. (4.3.7b)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of agricultural/natural resources producers and business representatives documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.1c)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

of organization and business representatives documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.2c)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

of producers, businesses, local governments, organizations, landowners, and individuals who collaborate to develop and implement waste reduction and management strategies. (4.3.3a)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

of local government officials and community leaders documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.4c)

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

of consumers, residents, and landowners documented to have modified existing practices or technologies and/or adopted new practices to manage and reduce waste. (4.3.5c)

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

of youth documented to have modified existing practices and/or adopted new practices to manage and reduce waste. (4.3.6c)

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

of youth introduced to variety of environmental and natural resources career options. (4.3.6d)

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	1000	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
133	Pollution Prevention and Mitigation
403	Waste Disposal, Recycling, and Reuse

Outcome #14

1. Outcome Measures

of teachers and youth professionals and volunteers who incorporate waste reduction and management knowledge into curriculum. (4.3.7c)

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

of agricultural/natural resources producers and business representatives documented to have improved waste management practices. (4.3.1d)

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

Documented instances in which resource managers credit lower costs for remediation to implementation of improved waste management practices. (4.3.2d)

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

Documented instances in which resource managers credit reduced risk from waste handling and disposal; decreased waste volume; and improved environmental equity to implementation of improved waste management practices. (4.3.3b)

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

of local government officials and community leaders documented to have established or modified waste management policies to enhance and protect land and water resources. (4.3.4d)

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

of consumers, residents, and/or landowners, documented to have improved waste management practices. (4.3.5d)

Not Reporting on this Outcome Measure

Outcome #20

1. Outcome Measures

of youth documented to have chosen waste management-related careers. (4.3.6e)

Not Reporting on this Outcome Measure

Outcome #21

1. Outcome Measures

Documented instances in which public health officials credit decreased public health risks to implementation of improved waste management practices. (4.3.8a)

Not Reporting on this Outcome Measure

Outcome #22

1. Outcome Measures

Documented instances in which resource managers credit lower costs for remediation to implementation of improved waste management practices. (4.3.8b)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 19

1. Name of the Planned Program

4.4 Consumer and Community Energy Resources

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
605	Natural Resource and Environmental Economics				
607	Consumer Economics				
608	Community Resource Planning and Development				
801	Individual and Family Resource Management				
805	Community Institutions, Health, and Social Services				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	20.0	0.0	1.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a comprehensive, statewide educational program entailing multiple education methods depending on local context and need. Campus-based faculty and extension associates and county-based educators are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

2. Brief description of the target audience

Consumers, property managers, and community leaders are targeted for information regarding energy supply alternatives and energy conservation options for residential, facilities, and transportation needs. Citizens, community agencies and organizations are targeted for energy-related policy education efforts particularly as related to development of alternative energy sources and the interaction between land use and energy conservation.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	25000	250000	0	0
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	5	
Actual	0	5	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of non-credit instructional activities directed to this plan.
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional activity contact hours directed to this program.
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # consumers and community leaders completing educational programs about the availability and pros and cons of alternative energy. (4.4.1a)
 Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # consumers, property managers, and/or housing officials completing educational programs about potential energy cost savings, including selecting energy providers, and energy conservation strategies and measures especially related to housing and transportation. (4.4.2a)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # community members, leaders and officials completing education programs about the relationships between development patterns and energy use/costs. (4.4.3a)
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# consumers and/or community leaders who demonstrate knowledge or skills gains about the availability and pros and cons of alternative energy sources especially related to housing and transportation. (4.4.1b)
2	# of consumers documented to have adopted appropriate alternative energy sources. (4.4.1c)
3	# of consumers who report savings on energy costs attributable to adopting alternative energy sources. (4.4.1d)
4	# consumers, property managers, and/or housing officials who demonstrate knowledge or skills gains and/or can articulate specific actions they will take related to energy cost controls and conservation measures especially related to housing and transportation. (4.4.2b)
5	# of consumers reporting to have adopted appropriate energy cost control and/or conservation practices. (4.4.2c)
6	# of property managers, and/or housing officials documented to have taken measures to improve energy cost control or efficiency of existing and new buildings. (4.4.2d)
7	# of consumers who report savings on energy costs attributable to adopting alternative energy sources and/or energy conservation measures. (4.4.2e)
8	# community members, leaders and officials who demonstrate knowledge gains about the relationships between development patterns and energy use/costs. (4.4.3b)
9	# communities documented to have assessed local energy development proposals and/or the relationships between current policies and regulations and energy conservation. (4.4.3c)
10	# of community agencies/organizations documented to have adopted appropriate alternative energy sources. (4.4.3d)
11	# of communities documented to have established or modified land use and development policies to promote energy conservation. (4.4.3e)
12	# of community agencies/organizations reporting savings on energy costs attributable to adopting alternative energy sources. (4.4.3f)

Outcome #1

1. Outcome Measures

consumers and/or community leaders who demonstrate knowledge or skills gains about the availability and pros and cons of alternative energy sources especially related to housing and transportation. (4.4.1b)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of consumers documented to have adopted appropriate alternative energy sources. (4.4.1c)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of consumers who report savings on energy costs attributable to adopting alternative energy sources. (4.4.1d)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

consumers, property managers, and/or housing officials who demonstrate knowledge or skills gains and/or can articulate specific actions they will take related to energy cost controls and conservation measures especially related to housing and transportation. (4.4.2b)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of consumers reporting to have adopted appropriate energy cost control and/or conservation practices. (4.4.2c)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of property managers, and/or housing officials documented to have taken measures to improve energy cost control or efficiency of existing and new buildings. (4.4.2d)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of consumers who report savings on energy costs attributable to adopting alternative energy sources and/or energy conservation measures. (4.4.2e)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

community members, leaders and officials who demonstrate knowledge gains about the relationships between development patterns and energy use/costs. (4.4.3b)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

communities documented to have assessed local energy development proposals and/or the relationships between current policies and regulations and energy conservation. (4.4.3c)

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

of community agencies/organizations documented to have adopted appropriate alternative energy sources. (4.4.3d)

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

of communities documented to have established or modified land use and development policies to promote energy conservation. (4.4.3e)

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

of community agencies/organizations reporting savings on energy costs attributable to adopting alternative energy sources. (4.4.3f)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 20

1. Name of the Planned Program

5.1 Youth Community Action

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	35.0	0.0	0.5	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

A variety of educational strategies will be used to help county educators gain the skills and knowledge necessary to fully understand and differentiate between the range of possibilities that exist within the YCA initiative. As a result, youth development professionals will be able to identify what they are already doing well, notice if there are any gaps within their programs, and enhance existing programs. Provided with evaluation 'tools' they will be able to evaluate organizational readiness to embrace the YCA concept, and measure their success in working with groups

Guided trainings and successful implementation of the process at the county level will increase the numbers of Youth /Adult partnerships; will result in the development of strong community action initiatives, and ultimately policy changes within communities. Provided such a diverse range of educational strategies, educators will be able to select those methods that work best for them, and realize the benefits and value in establishing youth/adult partnerships.

County, District and Statewide workshops; news articles; web page trainings; spotlighting successful programs, and critical evaluation offer opportunities for skills development and sharing of work being done. Good evaluation data provides a powerful reporting mechanism that can be used to persuade members of the legislature to provide funding to county and state programs. It can also generate scholarly publications and reviews.

2. Brief description of the target audience

- Youth 5 &ndash 21 years of age and adults.
- Youth, 5- 19 year of age are the targeted 4-H / non 4-H youth audiences
- 19 &ndash 21 year olds are college students who work well with younger youth and serve as mentors and role models. They will gain personally and professionally from YCA efforts.
- Adults (21+), of any age, ethnicity, religion, etc. They choose to serve as guides for the process, and are a very important part of any youth/adult driven project.
- Communities as whole: educating / informing youth and adults organizations, businesses, schools, and other institutions, to create the paradigm shift necessary to realize the value of youth and adults working together to build 'community'.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	10000	45000	17500	75000
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional activity contact hours directed to this program.
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of youth participating in education programs leading to youth community action initiatives.

(5.1.1a)

Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of youth participating in train-the-trainer programs related to youth community action. (5.1.1b)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of adults participating train-the-trainer programs related to youth community action. (5.1.1c)
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- # of communities participating in youth community action initiatives. (5.1.1d)
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of youth and adults demonstrating knowledge gains related to Youth/Adult Partnerships and Youth Community Action Initiatives. (5.1.1d)
2	# of youth documented to have practiced life skills necessary to meet challenges of adolescence and adulthood in authentic decision-making partnerships with adults as a result of participating in the program. (5.1.1e)
3	# of adults documented to have knowledge, skills and abilities and behaviors necessary to assist youth developing into productive community members as a result of participating in the program. (5.1.1f)
4	# of documented instances in which youth and adults partner to improve quality of life within a community as a result of participating in the program. (5.1.1g)

Outcome #1

1. Outcome Measures

of youth and adults demonstrating knowledge gains related to Youth/Adult Partnerships and Youth Community Action Initiatives. (5.1.1d)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of youth documented to have practiced life skills necessary to meet challenges of adolescence and adulthood in authentic decision-making partnerships with adults as a result of participating in the program. (5.1.1e)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of adults documented to have knowledge, skills and abilities and behaviors necessary to assist youth developing into productive community members as a result of participating in the program. (5.1.1f)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of documented instances in which youth and adults partner to improve quality of life within a community as a result of participating in the program. (5.1.1g)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Case Study

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 21

1. Name of the Planned Program

5.2 Positive Youth Development Including Life Skill Development

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	200.0	0.0	0.5	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

4-H Youth Development Staff are recruited with Youth Development experience including an understanding in helping youth develop competencies or life skills. New professionals are introduced to 4-H youth development's system of developing life skills in youth through professional development opportunities using resources such as 4-H 101 and Advancing Youth Development. Staff and volunteers are trained in the use of the NYS 4-H Resource Directory to acquire approved curriculum throughout the nation to teach life skills to 4-H members based on their subject matter interests.

Volunteers in 4-H Youth Development are carefully recruited, screened and selected based on roles needed to promote life skill development in youth. Volunteers, including professional staff from other community agencies and schools, are trained, supported and evaluated to ensure understanding and ability to develop youth and life skills.

Trained 4-H Staff, teachers, community agency staff, volunteers, and teens lead youth in 4-H projects, which are a planned series of learning experiences through which youth develop knowledge, practical skills (woodworking, gardening, cooking, etc.) and life skills (decision-making, self-discipline, leadership, etc.) in a variety of settings. The development of life skills builds assets that promote positive learning and prepare young people for work and adult responsibilities. Statewide, regional, and county events are structured to showcase 4-H project work, to recognize 4-H youths accomplishments and to allow 4-H participants opportunities for developing mastery, independence, generosity and belonging.

2. Brief description of the target audience

There are four distinct audiences. The youth development educator is professional or paraprofessional staff employed by Cornell Cooperative Extension. The adult volunteer / leader accepts a role defined by a written volunteer position, does not receive compensation for work, and works directly with young people. The 4-H participant is a young person between the ages of 5 and 19 who chooses to participate in the program. The youth development educator / worker within the community works directly with young people and may or may not have formal training in the area of education or youth development.

Youth development educators must understand and be able to apply the intentional process that promotes positive outcomes for young people by providing support, relationships, and

opportunities. Additionally, it is necessary for educators to have training and support in how to incorporate research findings process into program design. The adult volunteer leader must be trained in youth development principles and practices to ensure that the program creates positive opportunities for young people to reach their full potential. Young people must have an active voice in program determination, implementation, evaluation, and policy development. The front line youth worker is provided training in the core concepts of a youth development approach and its implications for youth work practice.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	25000	100000	65000	100000
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional activity contact hours directed to this program.

Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of youth program educators and adult volunteers participating in programs on positive youth development. (5.2.1a)

Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of youth participating in projects related to vocational skills and/or citizenship. (5.2.1b)

Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of youth participants who demonstrate gains in vocational/citizenship skills - knowledge, attitudes, and/or behaviors. (5.2.1c)
2	# of youth participants who learn to set goals, make plans and identify resources to achieve goals. (5.2.1d)
3	# of youth program educators and adult volunteers who demonstrate knowledge and/or skill gains in meeting the needs of youth at various stages of development. (5.2.1e)
4	# of youth participants who demonstrate ability to express their ideas confidently and competently. (5.2.1f)
5	# of adult volunteers documented to mentor and advise youth and other adult volunteers in an effective and positive manner. (5.2.1g)
6	# of youth participants documented as serving in age-appropriate leadership roles. (5.2.1h)
7	# of youth organizations/programs documented as reflecting youth needs, interests, and excitement for learning. (5.2.1i)

Outcome #1

1. Outcome Measures

of youth participants who demonstrate gains in vocational/citizenship skills - knowledge, attitudes, and/or behaviors. (5.2.1c)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of youth participants who learn to set goals, make plans and identify resources to achieve goals. (5.2.1d)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of youth program educators and adult volunteers who demonstrate knowledge and/or skill gains in meeting the needs of youth at various stages of development. (5.2.1e)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of youth participants who demonstrate ability to express their ideas confidently and competently. (5.2.1f)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of adult volunteers documented to mentor and advise youth and other adult volunteers in an effective and positive manner. (5.2.1g)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

of youth participants documented as serving in age-appropriate leadership roles. (5.2.1h)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of youth organizations/programs documented as reflecting youth needs, interests, and excitement for learning. (5.2.1i)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

2010 NY State Agricultural Experiment Station Research and Cornell University Research and Extension Combined Annual Report of Accomplishments and Results
{No Data Entered}

V(A). Planned Program (Summary)

Program # 22

1. Name of the Planned Program

5.3 Science, Engineering and Technology Literacy

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	35.0	0.0	0.0	0.0
Actual	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: Cornell University

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

2. Institution Name: NY State Agricultural Experiment Station

Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

NO LONGER REPORTING ON THIS PLANNED PROGRAM

This is a comprehensive, statewide educational program entailing a wide variety of applied research and multiple education methods depending on local context and need. Campus-based faculty and extension associates, the science and technology program work team, the NYSACCE4-HE professional development committee and county-based educators all are involved in designing, implementing, and evaluating tailored educational efforts depending on the focus and scope of their role.

Activities will include:

- Connecting kids to science and technology at Cornell University through programs at local Cornell Cooperative Extension associations, educational events at Cornell and by building relationships with Cornell Departments, faculty, staff and students.
- Enhancing and maintaining accessibility to hands-on science and technology curriculum that has a youth development basis and a connection to land grant universities through the NYS 4-H Resource Directory.

2. Brief description of the target audience

The target audiences for 4-H Science and Technology programming and curricula are youth in grades K-12 and adults who work with youth. These include, but are not exclusive of 4-H Leaders, 4-H Junior Leaders, and 4-H youth members, parents of 4-H members, adult leaders and the youth involved in after school and out-of-school-time programs, summer camp staff and youth campers, classroom teachers and their students in grades K-12, and leaders and youth in other youth serving organizations such as Scouts. Training one adult leader will result in a significant multiplier of youth who will participate in the activity from which their adult leader received training. This audience is reached directly though educational classes and workshops, individual consultations, group consultations and hands-on-curricula. These may be provided to youth or to their adult leaders. Additional contacts are made through newsletter articles highlighting curricula and curriculum reviews. The New York State 4-H Curriculum Resource Directory website provides and opportunity for any person to search for approved curricula in any Science and Technology topic, read a description of the curricula and then purchase it.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	15000	240000	85000	300000
Actual	0	0	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: {No Data}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	0	
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # non-credit instructional activities directed to this program.
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # non-credit instructional activity contact hours directed to this program.
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of 4-H members enrolled in Science and Technology project areas (as reported on ES-237).
 (5.3.1a)

Not reporting on this Output for this Annual Report

Output #4

Output Measure

- # of youth reached through school enrichment, special interest programs, 4-H camp, and after school programs coded as science and technology related (as reported on ES-237). (5.3.1b)
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- # of 4-H and other youth program educators and adult volunteers participating in programs on SET for youth (5.3.1c)
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	increased number and more diverse pool of youth pursuing education and careers in SET related fields (5.3.1j)
2	# participants demonstrating increased awareness of SET, improved SET skills including scientific methods, knowledge of specific sciences, and/or increased awareness of opportunities to contribute to society using SET skills. (5.3.1d)
3	# of participants that report improved success in school science and/or increased interest in science and technology. (5.3.1e)
4	# youth applying SET learning to contexts outside 4-H programs, e.g., school classes, science fairs, invention contests, etc. (5.3.1f)
5	# of youth documented to become contributing participants in sci/tech related issues in their communities and/or choose sci/tech related professions and who attribute same at least in part to involvement with the program. (5.3.1i)
6	# youth expressing interest/demonstrating aspirations towards SET careers, e.g., career fairs, job shadowing, volunteer work or internships (5.3.1g)
7	# youth adopting and using new methods or improved technology (5.3.1h)
8	increased and more diverse pool of trained teachers, educators, scientists (5.3.1k)
9	increased science literacy in general population(5.3.1l)

Outcome #1

1. Outcome Measures

increased number and more diverse pool of youth pursuing education and careers in SET related fields (5.3.1j)

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

participants demonstrating increased awareness of SET, improved SET skills including scientific methods, knowledge of specific sciences, and/or increased awareness of opportunities to contribute to society using SET skills. (5.3.1d)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of participants that report improved success in school science and/or increased interest in science and technology. (5.3.1e)

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

youth applying SET learning to contexts outside 4-H programs, e.g., school classes, science fairs, invention contests, etc. (5.3.1f)

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

of youth documented to become contributing participants in sci/tech related issues in their communities and/or choose sci/tech related professions and who attribute same at least in part to involvement with the program. (5.3.1i)

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

youth expressing interest/demonstrating aspirations towards SET careers, e.g., career fairs, job shadowing, volunteer work or internships (5.3.1g)

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

youth adopting and using new methods or improved technology (5.3.1h)

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

increased and more diverse pool of trained teachers, educators, scientists (5.3.1k)

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

increased science literacy in general population(5.3.1l)

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Public Policy changes
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Comparison between locales where the program operates and sites without program intervention

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}