

# STATION NEWS

# 125



NEW YORK STATE AGRICULTURAL EXPERIMENT STATION

*Celebrating the past, shaping the present, inspiring the future.*

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## BRIEFS

### Nature Technologies Newest Tenant at Tech Farm

Westchester-based Nature Technologies recently accepted an invitation from The Cornell Agriculture & Food Technology Park, known as "The Technology Farm," to join Cornell's roster of leading agriculture, food science and bio-based industry tenants. In addition to locating its research and development facility on site, Nature Technologies, the leading deer deterrent company, will collaborate with Cornell University's world-class faculty to jointly research deer-related issues and concerns.

"Teaming with Cornell University and The Technology Farm is a milestone for Nature Technologies," said Trevor Price, CEO of Nature Technologies. "We expect this relationship to result in much needed research and real-world solutions to address the ever growing deer population and related deer management issues."

"With its extensive use of true research and breakthrough technology to combat the growing deer problem, Nature Technologies embodies the approach we look for in Technology Farm tenants," said Dr. Robert Seem, president of The Technology Farm Board. "We're intrigued by the potential environmental benefits and assistance to property owners having to combat the costly and frustrating damage to their landscaping. This is a real win-win for Nature Technologies and for everyone who will benefit from better deer management solutions."

U.S. Sen. Charles Schumer recently toured The Technology Farm and praised Cornell and Nature Technologies for their work on the deer issue.

"The addition of Nature Technologies to the Technology Farm in Geneva is another

*(Continued on page 2)*

## Gennaro Fazio Receives Award From USDA-ARS

**G**ennaro Fazio, a geneticist with the USDA-ARS Plant Genetic Resources Unit recently received the Early Career Scientist of the Year award representing the North Atlantic area of the USDA-ARS. The award was presented March 6 in Washington, D.C. by USDA undersecretary Dr. Buchanan and ARS administrator Dr. Knipling for his cooperative work with Cornell scientists to breed and release three new apple rootstocks. These rootstocks have superior resistance to rootstock fire blight and replant disease complex. Terence Robinson and Herb Aldwinckle were the primary collaborators in this work.

"Gennaro came into this position just over five years ago while it was in its second stage of transition," says Phil Forsline, Research Leader (Supervisory Horticulturist) for USDA-ARS, Plant Genetic Resources Unit. "Eleven years ago, Dr. James Cummins retired as a Cornell professor from the position of Apple Rootstock Breeder. The position was then converted to an ARS position in close collaboration with Cornell." Forsline went on to say that the first ARS hire stayed only two years and did an excellent job with the transition. Then Gennaro arrived and brought a visionary approach to the position. "He has led the rapid development of new rootstocks that were in the pipeline from the previous PIs to the point where they are having tremendous impact on the industry. This has been in strong collaboration with Cornell and with industry representatives."

"The award" says Fazio "is a great reflection on the legacy of the program, all of its collaborators, the support of ARS and the great working environment at NYSAES – this is truly a team effort." Fazio also said that this work would not have been possible without the efforts and collaboration of U.S. growers and the support of the Washington Tree Fruit Research Commission. He especially acknowledged the distinguished contributions of Todd Holleran, Sarah Bauer and Charlie Bennett who have been with the program for several years.

Fazio worked on cucumber marker assisted-breeding before apple rootstocks. The transition from cucumbers (3 generations/year) to apple rootstocks (one generation/12-20 years) was challenging. He has developed the apple rootstock-breeding program that barely had any laboratory components into one that combines field data with molecular markers and genomics to increase precision and expedite the breeding program. This effort has involved several collaborators including familiar faces to the Station community like Dr. Angela Baldo (PGRU) with work on root specific genes, Dr. Jay Norelli (AFRS) with work on graft



*Gennaro Fazio*

*(Continued on page 3)*



(BRIEFS, continued)

step forward in the effort to expand this vital economic engine. Nature Technologies is on the cutting edge and conducts vital research in environmental issues important to New York State. I look forward to working with Nature Technologies, Cornell University, and all of its partners to continue to grow this remarkable facility," Sen. Schumer said.

Among the first initiatives of this collaboration will be development of a unique deer assessment tool designed to assist homeowners and landscapers with identifying the severity of their specific deer problem. Armed with this information, appropriate remedies can be considered. Another proposed initiative is a joint in-depth analysis, by an integrated Cornell-Nature Technologies team, of the horticultural, environmental, topographical and deer herd dynamics and factors of the most difficult properties to protect from deer destruction. By studying the most severe and difficult environments, the team intends to develop even more powerful tools for combating the normal suburban deer problem. Individuals interested in enrolling their property to be assessed as part of this study may send an email to: [cornellstudy@naturetechnologies.com](mailto:cornellstudy@naturetechnologies.com).

#### About Nature Technologies

Nature Technologies provides customized deer deterrent services that prevent deer-related damage to residential landscaping. Selected by Cornell University to join The Technology Farm, Nature Technologies has unrivaled access to leading Cornell scientists and academics to assist in the development of integrated pest management (IPM) methods for stopping deer destruction. Humane, seasonally, horticulturally and biologically appropriate, the company's service program is customized for each homeowner using a comprehensive approach that directly targets the deer's different senses, including hearing, sight, taste, smell and touch, and guarantees results.

Nature Technologies currently serves the Northeastern United States and manages more than 2,000 properties in the New York and Philadelphia Metropolitan areas alone. For more information, please visit [www.naturetechnologies.com](http://www.naturetechnologies.com) or call 1-914-741-9280 or 1-800-GOT-DEER.

## Julie Kikkert Recognized as NYFVI Project Leader of the Year for 2006

At its annual recognition luncheon on February 1 in Syracuse, NY, The New York Farm Viability Institute, Inc. (NYFVI) honored producers and supporters of that organization's goal to explore methods of increasing farm-level profits. Cornell Cooperative Extension vegetable specialist, Julie R. Kikkert was presented an award for New York Farm Viability Institute Project Leader of the Year for 2006.

Presenting the New York Farm Viability Institute Project Leader of the Year Award, John Lincoln, NYFVI Chairman, said "The project leaders who receive rave reviews from the farmers they work with are, of course, knowledgeable in their chosen field. The farmers also credit the good project leaders with sharp listening skills and with designing projects that meet the producers' expressed needs and interests. Communicating the necessary protocols and capturing farmer buy-in to the needed production practices are also valuable skills for project leaders."

Lincoln applauded project leaders for their role in bridging Institute-funded research with increasing profits at participating farms, as well as sharing project data with other producers to benefit their farm businesses.

"One of the New York Farm Viability Institute project leaders who has put her project leadership and communication skills to work this past year in the cabbage fields of Western New York, and who will be continuing field trials to reduce weed pressure on a crop that represents \$40 to \$80 million per year in New York State is Dr. Julie R. Kikkert of Cornell Cooperative Extension's Vegetable Program" Lincoln said. "Weeds and the diseases they harbor can cause thousands of dollars worth of damage to a cabbage crop. The need to hand weed can cost a farmer \$50 to \$300 per acre. Dr. Kikkert, working in concert with several growers and other Cornell horticulture and vegetable specialists, is developing weed scouting protocols and evaluating the effectiveness and cost of various weed control management practices for cabbage and cruciferous crops. We are pleased to recognize Dr. Julie R. Kikkert as the New York Farm Viability Institute Project Leader of the Year for 2006."

Kikkert. On accepting the award, said, "As I look around the room at the many project teams funded by the Institute, I realize how prestigious this award is and I am honored to be recognized for work that I hope will make a difference for New York's producers."

"I am delighted that Julie received this award from the NYFVI," said Helene Dillard, director of Cornell Cooperative Extension. "She is an outstanding team player and an excellent extension associate. We are fortunate to have her as a member of the Cornell Vegetable Program."

In 2007, Kikkert will work with several growers, including Cornell Cooperative Extension Vegetable Specialist Christine A. Hoeping and Cornell University Horticulture Professor Dr. Robin R. Bellinder, to develop a complete analysis of the effectiveness and costs of side-by-side trials of weed control practices for cruciferous crop producers.



Julie Kikkert

Kara Dunn



(FAZIO, continued)

transmissible RNA interference and Dr. McNellis (Penn State) with work on expression profiling of scion genes that are affected by dwarfing rootstocks.

The national scope of the program has meant that Fazio has had to learn about and commit efforts to all the states that have large apple industries including New York, Michigan, Washington and Pennsylvania. He has established several rootstock trials in these states that go beyond the collaboration with the NC-140 research group. This has meant a lot of travel time to test locations in the U.S. and around the world. Four years ago as a result of preliminary studies on replant disease by Dr. Ian Merwin, Fazio established some larger scale experiments in Washington that have resulted in the identification of replant tolerance in two rootstocks that were recently released by the breeding program; one of these experiments was conducted under organic management requirements, which represent a growing segment of the fruit industry. These results have driven requests by the Washington apple industry of more than a quarter million plants per year of G.41 dwarfing rootstock. This demand is likely to increase in the future as the industry renews itself.

“There is a lot of great material in the breeding pipeline,” says Fazio; but it’s in future rootstocks that he sees great potential—especially with crosses between Kazak apples and elite American material. Walking through greenhouses at Geneva devoted to rootstock studies, Fazio said that natural selection that occurs in the central Asian forests seems to have helped the Kazak trees develop resistance to soil pathogens that can otherwise stunt young apple orchards and lead to poor growth and lost production. He sent rootstock samples to plant pathologist Mark Mazzola of ARS’s Tree Fruit Research Laboratory in Wenatchee, Washington. Mazzola, who specializes in soilborne diseases of apples, tested it for resistance to *Rhizoctonia solani* and found it to be significantly more resistant than all the controls he was using.

Root tissue from Kazak seedlings survivors of the *Phytophthora* inoculation has been used to create a cDNA library that has been sequenced as part of an ongoing NSF Expressed Sequence Tag project lead by Dr. Korban (UIUC). The goal is to find the genes that are expressed in roots of resistant individuals. In collaboration with Dr. Wan an important recent development in the program is the production of an apple rootstock genetic map composed of gene-based markers representing the foundation for gene-trait association discovery and marker-assisted breeding.

“The industry has recognized the importance of this program and Dr. Fazio’s leadership by assisting with industry grants that have accelerated his progress,” said Phil Forsline. “I look forward to major breakthroughs in his research as a result of his progress and approach.”

## School Tours Station and Ag Tech Farm

Kitty Noble, project administrator of the Finger Lakes New Knowledge Fusion Project\* along with several faculty members and personnel from administration recently hosted 16 students and five teachers from Hillside Children’s Center. Students and teachers were introduced to the activities of the Station and the Park, and how they relate to their education.

Herb Cooley and Tom Gibson (Food Science & Technology) showed students how to peel apples with equipment housed in the pilot plant, while Kyle Arvin (NYS Seed Testing Lab) demonstrated how seed samples are sorted and germination tests are run.

Hillside students and teachers were thoroughly impressed by the resources available through the Station and the Park and look forward to working with each institution in the future.

\*This project is an economic development grant funded by the National Science Foundation as part of its Partnerships for Innovation Program.

K. Noble

## Diversity/Discrimination Training

On Monday, March 19, 2007, from 1:00 p.m. to 3:30 p.m. the second and third parts (combined) of the Diversity training through the Office of Workforce, Diversity, Equity and Life Quality (WDELQ) will be held in Jordan Auditorium. This combined session will include information and training regarding discrimination and diversity recruitment. This is the final session in the series. Attendees of both sessions will receive a certificate of completion for this training.

Please be mindful of the following message from Tom Burr prior to the first part of this training:

“As you are aware, the Office of Workforce, Diversity, Equity and Life Quality (WDELQ) will be coming to Geneva to work with our Station community to enhance awareness regarding sexual harassment and to review discrimination issues and expectations. I encourage you to make every effort to attend these workshops - they are open to faculty, staff and students.”

We look forward to seeing you there and thank you.

Pat Mahoney

## “America’s Tuscany”

“America’s Tuscany” headlines the cover of the latest National Geographic Traveler, with coverage of California’s major regions along with a feature on “The Other Wine Country” with the kicker, “New York’s Finger Lakes offer winding roads, tranquil lakes, and wineries worth writing home about.” A bit of the introductory copy: “But an equally intoxicating region (to Napa and Sonoma)—far less famous and congested—beckons from the other side of the country, New York’s Finger Lakes. The vintners here make wines that stand alongside California’s best. And the scenery is likewise first-rate. Road-trippers can taste their way from vineyard to vineyard amid rolling hills, tidy Amish farms, and long vistas of blue water.” The article features several wineries, along with other attractions that continue to make the Finger Lakes New York’s second largest tourist destination after New York City. Beautiful lakes, great wine, fabulous food...what’s not to like?

Wine Press



**CALENDAR of EVENTS**  
MARCH 16 - 30, 2007

**SEMINARS**

**ENTOMOLOGY**

Jennifer Grant, IPM

“Reduced risk management of golf course putting greens: The Bethpage Experiment”

**Date:** Tuesday, March 27, 2007

**Time:** 10:30 AM (10: PM coffee)

**Place:** Rm. 310 Barton Lab, Chapman Conference Room

**PLANT PATH**

Tuesday, March 20, 2007  
Spring Break - No Seminar

George Hudler and Karen Clift  
Dept. of Plant Pathology  
Cornell University, Ithaca, NY

“The Northeast Plant Diagnostic Center”

**Date:** Tuesday, March 27, 2007

**Time:** 3:30 PM (3 PM coffee)

**Place:** A134 Barton Lab

**HORT SCIENCE**

Michal Shores, PostDoc,  
Horticultural Sciences, NYSAES

“The Molecular Basis of the Maize-  
*Trichoderm Harzianum* T22 Interaction”

**Date:** Monday, March 26, 2007

**Time:** 11:15 AM

**Place:** A134 Barton Lab

**ASC**

Cornell will reimburse employees who use personal vehicles for approved business related travel at the new prevailing rate of 48.5 cents per mile. The new rate for business miles is an increase from 2006 at 44.5 cents per mile. The IRS mileage rates can be found at:

[http://www.payments.cornell.edu/IRS\\_Mileage\\_Rates.cfm](http://www.payments.cornell.edu/IRS_Mileage_Rates.cfm).

When submitting personal mileage reimbursement, please be sure to use the form on our website.

New Faculty visit <http://www.purchasing.cornell.edu/overview2.cfm> for purchasing information.

**ENGLISH AS A SECOND LANGUAGE**

Classes are absolutely free and include conversational English, writing skills and real-life communications.

**Instructor:** Mary Spittler

**When:** Classes will begin on Tuesday, February 20th and meet every Tuesday afternoon from 5:00 p.m. to 8:00 p.m., and every Thursday afternoon from 3:00 p.m. to 6:00 p.m.

**Where:** The classes will be held in the Lunch Room in the Food Science and Technology Building.

New students are welcome to join at any time. Just show up for any session. Classes are flexible so that students may attend either or both sessions per week.

**SPECIAL SEMINARS**

**FOOD SCIENCE**

FS600 Seminar Series

Dr. Philip Marriott

Professor of Separation Science  
School of Applied Sciences

RMIT University, Melbourne, Australia

“New Comprehensive GC Methodologies:

Diverse chemical analysis strategies from aroma profiling to metabolomics”

**Date:** Tuesday, March 20, 2007

**Time:** 3:30 PM

**Place:** Food Science & Technology Conference Room Room 251

**PLANT PATH**

Steve Lindow

Department of Plant Pathology &  
Microbial Biology

University of California, Berkeley, CA

“Phyllosphere Microbiology: Interactions of bacteria with themselves and with the plants on which they live”

**Date:** Friday, March 30, 2007

**Time:** 10 AM

**Place:** A134 Barton Lab

**MEETINGS**

**CHAIRS MEETING**

**Date:** Tuesday, March 20, 2007

**Time:** 8:30 AM

**Place:** Director’s Office

**Pre Retirement Seminar**

Mary Zielinski, Retirement Program Manager and Margaret Moon, Senior Specialist for Retirement Programs in the Benefits Services Office will be coming to Geneva on Wednesday, March 28, 2007 from 9:30 a.m. to noon in Jordan Hall Lounge to present a Pre-Retirement Seminar.

Please mark your calendars and plan to attend this informative session on retirement.

If you have any questions, please contact Cherie Martin (extension 2210 or caq1) or me (extension 2234 or pmm19).

*Thank you!*  
Pat Mahoney

**Attention: Station Retirees**

If you have changed your address or if you are not receiving mailings about Retiree’s activities, and would like to be on the mailing list, please call

Sue Dwyer at 315-781-0360.

**CLASSIFIEDS**

**FOR RENT:** 1 & 2 bedroom apartments in Geneva. Newly remodeled, close to downtown, hospital, and NYSAES. Quiet neighborhood. The 1 bedroom is \$700/month and the 2 bedroom is \$800 per month. All utilities included (gas, electric, heat, water & sewer, trash & snow removal). Off street parking. For more info contact ds223 or call 789-2612.

**FOR SALE:** Lake Home. Beautiful year-round home on Seneca Lake for sale. Just 8 miles South of Geneva. 50 ft. of private lakefront, with house on a larger lot. Three bedrooms and large finished room in basement. Hardwood floors. Full attic and basement, and 1.5 car garage. \$225,000. For more info contact jag7 or call X2209.

**FOR RENT:** Upper 1 bedroom apartment on Main St. \$375 per month, all utilities included except electric. Off street parking. Quiet neighborhood. Close to NYSAES. For more info contact chr2 or call X2493.