



STATION NEWS

New York State Agricultural Experiment Station, Geneva, New York

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BRIEFS

Precision Fruit Spraying Conference to be Held

The First North American Conference on Precision Fruit Spraying will be held Tuesday, April 8 and Wednesday, April 9 at the Inn on the Lake Resort and Conference Center in Canandaigua.

The objective of the conference is to bring attendees up to speed on current research and future projects involving technology for the precise application of pesticides to apple trees and grapevines. An international group of speakers, including several from Cornell, will address current research projects and future industry needs. The conference is for manufactures, researchers, policy makers, and others interested in precision spraying.

For updates go to: <http://www.nysaes.cornell.edu/hp/events/detail.php?id=74>

Volunteers Needed

Do you ever have the urge to do a good deed, or feel like you want to give something back to the community and humankind in general, but don't really have the time for a long term commitment—well here's your chance. The Experiment Station has committed again this year to staff the Geneva Community Lunch Program (Catholic Charities of the Finger Lakes) each Thursday in April. A total of 8-10 volunteers are needed Thursdays from 9:00am-1:00pm to prepare and serve a hot lunch meal for those in Geneva who might otherwise go hungry. This is not only a great opportunity to help others in the community, but also an opportunity to connect with some of your co-workers outside of the lab or office.

(Continued on page 2)

Developing Management Practices for Phytophthora Blight in New York

Phytophthora blight, caused by the pathogen *Phytophthora capsici*, is a devastating disease of many solanaceous (pepper, eggplant and tomato), and cucurbit (squash, melon, cucumber, gourd and pumpkin) crops. A team of Cornell researchers led by Geneva plant pathologist Christine Smart initiated a long-term project in 2007 designed to expand the understanding of the *Phytophthora* blight pathogen, *P. capsici*, to identify resistant and tolerant varieties that could grow successfully in New York, and to understand interactions



Photograph taken at a research plot at the new *Phytophthora* field site showing a summer squash plant devastated by *Phytophthora* blight.

that occur between the pathogen and the host. Other members of the team include: William Fry, Meg McGrath, Helene Dillard, Stephen Reiners, and Peter Moffett.

"The first component of the program was to develop a field research site, while the second and third components are for basic and applied research on the problem," said Chris Smart. "Combined, the results of these research projects will serve as a foundation upon which we will develop a multi-component disease management strategy for growers of solanaceous and cucurbit crops in New York."

Component one, development of a field site, has been completed and a nine-acre site in Geneva is in place. This site will be used exclusively for *Phytophthora* blight research. "We conducted trials on this farm in 2007, and know that we can reproduce disease epidemics at the site," Smart said.

Component two consists of ongoing research in Geneva, Ithaca, and Long Island. There are several ongoing research projects associated with this component.

The long-term goal of the first project is to identify cultivars and control strategies that are effective against *Phytophthora* blight in New York. In 2007, eggplant, pepper and summer squash variety trials were performed at the new field site. This was a cooperative effort between the Reiners, Dillard and Smart programs. One point of interest from these trials was that of the 12 summer squash varieties tested, three were less susceptible than the others, however, all the summer squash varieties tested did succumb to the disease.

Additionally, both greenhouse and field studies were performed with an experimental biological control agent (the fungus *Muscador albus*), which had previously been shown to control *Phytophthora* blight. When used in combination with a tolerant pepper variety, this compound was found to reduce disease in the greenhouse, but was not successful in winter squash trials performed in the field. This work was done by graduate student Amara Camp.

(Continued on page 2)



(BRIEFS, continued)

For non-exempt staff the requirement for this absence would be to take 3 hours of paid leave (vacation, personal, or comp. time, with the approval of your supervisor).

The Geneva Community Lunch Program serves any and all who come to the door. Most folks do not like to depend on free meals, but the truth is that there are many men, women and children in the area who would go hungry if the program was not in existence and people like you and I were not there to lend a hand. If you volunteer we can promise you that you will work hard, have some fun, and learn a great deal about yourself and your fellow human beings. Do yourself and somebody else a big favor. Please email me at gro2@nysaes.cornell.edu or call 787-2248 if you are willing to volunteer.

Thank you.

G. Osborne

The Geneva Chapter Sigma Xi

RETIREE NEWS

NYSAES Retirees Association Annual Meeting and Luncheon Buffet Thursday, April 24, 2008 Abigail's Restaurant, Waterloo NOON

BUFFET LUNCHEON: Regular Luncheon Buffet, Beverage and Dessert

\$10.00 – Includes tip

RSVP Before April 18, 2008 to

Sue Dwyer 781-0360

Election of officers and short business meeting will be held.

Please join everyone to celebrate spring with good food and friends.

(PRACTICES, continued)

The second major project is to gain an understanding of the genetic structure of the pathogen population in New York. In 2007, approximately 250 isolates of *Phytophthora capsici* were collected, and these isolates are now being characterized in the Fry and Smart labs. Every isolate is being tested for multiple characteristics, including sensitivity to the commonly used fungicide mefenoxam. DNA is then extracted



Chris Smart (right) and Amara Camp (left) spread diseased cucumbers to inoculate a portion of the new *Phytophthora blight* field site.

from each isolate and analyzed to determine the similarity between isolates from a single plant, field, and from around New York compared to other locations. These studies will lead to a better understanding of how the pathogen survives, reproduces, and spreads in New York.

A third project focuses on pathogen detection in the field. Protocols already in place that were developed to detect *Phytophthora capsici* in soil are currently being optimized; and multiple soil samples have been collected and are being processed. The goal of these studies is to be able to determine the extent of pathogen contamination in a particular field.

Component three involves basic research in engineering disease resistant plants. Much of this work is done by Peter Moffett at the Boyce Thompson Institute. One aspect of economically and environmentally sound disease management involves the use of plants that are genetically endowed with resistance to a given disease. Since attempts to breed for resistance to *P. capsici* in peppers and cucurbits have not been successful to date, we have undertaken a program to transfer resistance to *P. capsici* from plants within the same family as pepper using a biotechnology approach. Using information from the genomes of *P. capsici* and related pathogens, potential elicitor proteins have been identified. These will be used to identify potential sources of resistance from wild tobacco species (which is related to peppers, eggplants and tomatoes). Ultimately the goal will be to identify the tobacco genes that recognize the pathogen elicitors and transfer them to crop plants.

The vegetable growers and Farm Bureau of New York worked with the leadership of the New York State Assembly and Senate Agriculture Committees to secure funding for the project. The Department of Agriculture and Markets administers the grant.

Growers in the Eden Valley area of Western New York, who have been particularly hard hit by *Phytophthora blight*, were instrumental in calling attention to the problem.

SAVE THE DATE

“BRING A CHILD TO WORK DAY” will be held on Thursday, April 24

Children (ages 8 - 16) can visit and learn about the work done here at the Station. Registration forms are available in each department and are due back to Amy Andersen by April 10, 2008

“Taste of New York” Series Showcases New York Agricultural Bounty

Few people know that farming is New York State’s #1 industry, or even that farms are where our food comes from. To enlighten the public, WXXI Public Broadcasting in Rochester and the New York Wine & Grape Foundation have co-produced a 13-part series—“Taste of New York”—which crisscrosses the state talking to the winemakers, farmers and restaurateurs who produce some of the finest wines and foods in the world.

“We are proud to be able to present the fascinating story of New York agriculture, and the colorful personalities responsible for bringing their fine products to us,” said Norm Silverstein, President of WXXI. “The depth and breadth of wine and food production in New York State far exceeded our expectations, and we look forward to sharing this fascinating discovery with our viewers.”

Each segment begins and ends at the New York Wine & Culinary Center, a new world-class gateway to agri-tourism and culinary tourism. Series host Susan Hunt and Executive Chef Dan Martello introduce the particular region she will visit and, when she returns they create a special dish using the food ingredients and wines from that region.

“Susan and Chef Dan are the perfect guides for this journey,” said Jim Trezise, President of the New York Wine & Grape Foundation. “They have a great way of tying everything together—the regions, the personalities, the foods and wines—so that it’s all integrated and the whole is greater than the sum of its parts.”

The first episode focuses on the New York Wine & Culinary Center—its origin, mission, activities, and outlook. Initiated by the world’s largest wine company, Constellation Brands, the New York Wine & Culinary Center is a partnership with the New York Wine & Grape Foundation, Rochester Institute of Technology, and Wegmans, with support from the State of New York. It provides extensive education and training to diverse audiences from school children to wine students and chefs in training.

“We have a unique mission and a unique facility,” said the Center’s Executive Director Alexa Gifford. “We serve as both a physical and electronic gateway to New York wines, foods, agri-tourism, and culinary tourism, so it was a natural that this wonderful series is anchored here.”

The second segment provides an overview of New York’s burgeoning wine industry and its major regions, while the third episode offers a glimpse of New York as a large and diverse farm state and the importance of farming to the economy.

Episode four begins the traveling road show, with a focus on New York City and how country and city meet at greenmarkets, New York-centric wine shops, and restaurants whose chefs focus on local, seasonal products.

The next seven episodes highlight the winemakers, food producers and restaurants of the major agricultural regions: Long Island, the Hudson Valley, the Finger Lakes (east and west), Niagara/Lake Erie, North Country, and the Capital/Saratoga area.

The final two episodes focus on “Farming: A Team Effort” and “Taste of the Future,” with some fascinating people, research, and science along with very basic practices like organic farming.

The “Taste of New York” series was made possible by a grant to the New York Wine & Grape Foundation from the State of New York, with leadership by Senate Agriculture Chair Catharine Young and support by Assembly Agriculture Chair Bill Magee.

WXXI produced the series in high definition, and it will be available to every public television in the country. The series is distributed by NETA. The series premieres Saturday, April 5 at 2:30 pm, and will air Saturdays at 2:30 pm throughout the spring. It is expected to air on public television stations across the State. To learn more about the series visit WXXI.org/tasteofny.

The “Taste of New York” series will be shown on all New York State public television stations, with Rochester and Binghamton starting on April 5, Syracuse on May 10, and others are still to be scheduled.

The Wine Press



Presents

A National Distinguished Lecture by

Dr. Alison Williams

Department of Molecular Biology and
Assoc. Director of Diversity Programs
and Graduate Recruiting
Princeton University

**Lessons from the Lab:
An African American
Woman’s Journey from
Manure to DNA**

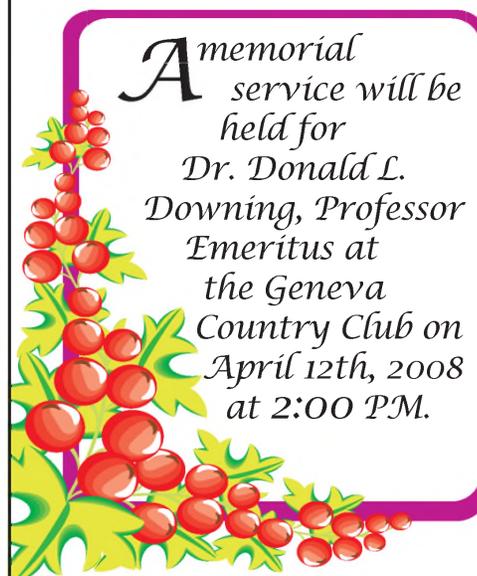
Monday, March 31, 2008

8 PM

**Coxe Hall – Room 8
Hobart & William Smith Colleges**

ALL ARE WELCOME

Sigma Xi, The Scientific Research Society, is dedicated to honoring scientific accomplishments, encouraging and enhancing appreciation and support of original investigation in science and technology, and fostering worldwide a creative and dynamic interaction among science, technology and society.



*A memorial service will be held for
Dr. Donald L. Downing, Professor Emeritus at the Geneva Country Club on April 12th, 2008 at 2:00 PM.*



CALENDAR of EVENTS
MAR 29 - APR 11, 2008

MEETINGS

CALS FACULTY SENATE MEETING

Date: Wednesday, April 2, 2008
Time: 4 PM
Place: A134 Barton Lab, A/V Linkage

THE CHAIRS MEETING ON APRIL 8, 2008 AT 8:30 AM HAS BEEN CANCELLED

SEMINARS

PLANT PATHOLOGY

Date: Tuesday, April 1, 2008
Time: 3:30 PM
Place: A134 Barton Lab
Title: Fruit IPM in New York State: Discover, Implement, and Extend
Speaker: Juliet Carroll, IPM Geneva

Date: Tuesday, April 8, 2008
Time: 3:30 PM
Place: A134 Barton Lab
Title: Citrus Huanglongbing: Battling the Dragon
Speaker: Tim Gottwald, USDA/ARS, Ft. Pierce, FL

ENTOMOLOGY

Date: Tuesday, April 1, 2008
Time: 10:30 AM, Coffee at 10:15
Place: A134 Barton Lab
Title: Virus-resistant Transgenic Crops: Insights into Their Impact After the First Decade of Release
Speaker: Marc Fuchs, Geneva

Date: Tuesday, April 8, 2008
Time: 10:30 AM, Coffee at 10:15
Place: A134 Barton Lab
Title: Screening for Resistance and Impact of Onion Thrips (*Thrips tabaci* Lindeman) and Iris Yellow Spot Virus on Onion Growth
Speaker: John Diaz, Ithaca

Date: Tuesday, April 8, 2008
Time: 10:30 AM, Coffee at 10:15
Place: A134 Barton Lab

(Continued in next Column)

SEMINARS CONTINUED

Title: Assessing Possible Sources of Iris Yellow Spot Virus (IYSV) (*Tospovirus*), and Identifying Perennial Weed Hosts for Onion Thrips, (*Thrips tabaci* Lindeman), and IYSV in New York Onion (*Allium cepa*) Fields.
Speaker: Eric Smith, Ithaca

FOOD SCIENCE

Date: Wednesday, April 2, 2008
Time: 11 AM
Place: FST Conference Room
Title: Extraction and Quantification of 2-methoxy-3-isobutylpyrazine (IBMP) in *Vitis vinifera* L. cv. Cabernet Franc using HS-SPME analysis coupled with labelled isotope and GCxGC-TOF-MS
Speaker: Imelda Ryona, Geneva

Date: Wednesday, April 9, 2008
Time: 11 AM
Place: FST Conference Room
Title: Effects of Processing on the Phenolic Content and Composition of Wine Grapes and Their Byproducts
Speaker: Illeme Bonsi, Geneva

HORT SCIENCE

Date: Monday, March 31, 2008
Time: 11:15 - 12:10 PM
Place: Via Polycom, Ithaca
Title: Translational Plant Senescence: From Model to Motor
Speaker: Susheng Gan, Ithaca

Date: Monday, April 7, 2008
Time: 11:15 - 12:10 PM
Place: Via Polycom, Ithaca
Title: Enhancing and Synchronizing Grape Ripening
Speaker: Vinay Pagay, Ithaca

Date: Monday, April 7, 2008
Time: 11:15 - 12:10 PM
Place: Via Polycom, Ithaca
Title: Effects of Cluster Shading on Flavonoid Accumulation in DeChaunac Grapes
Speaker: Piero Spada, Ithaca

LTC

Date: Thursday, April 10, 2008
Time: 9 - 11 AM
Place: LTC
Title: Excel Open Lab
Instructor: Cheryl Ten Eyck, Geneva

STATION SAFETY COMMITTEE SAFETY TIPS

ONLINE TRAINING ROSTER OVERVIEW

The Online Training Roster is a database created to assist the Station community with mandatory health and safety training requirements. Based on the position requirement checklist, training records, and training requirements the database creates new records and notifies the trainer of pending training. When the trainer schedules a training session the database sends a notification email to targeted staff and their supervisors. Assuming the position requirement checklist is correct all NYSAES staff that receive a notice from "NYSAES Safety" with the subject line beginning "[MANDATORY TRAINING]" must complete the training. The Online Training Roster only targets staff that require mandatory training. You can review your contact information, position requirement checklist, training history, and emergency response information from the "Staff" link on the Online Training Roster homepage at <<http://fru.nysaes.cornell.edu/Training/default.htm>> with the password "guest." Only your department's Designated Responsible User (DRU) can edit your Staff record. Thank you for helping to maintain a safe work environment at the Station.

YOGA FOR EVERYONE

Day: Monday Nights
Time: 5:30 - 6:30 PM
Place: Jordan Hall Auditorium
Cost: \$25 for four sessions, first class is free
Instructor: Margaret Newland & Leigh Pitifer
Beginner thru advanced

TAEKARDIO AND BOKKENKICK

Days: Monday, TaeKardio
Wednesday, Bokkenkick
Thursday, TaeKardio
Time: 12 - 1 PM
Place: Jordan Hall Auditorium
Cost: \$25 for 6 weeks
Instructor: Tina Felice, Geneva Martial Arts