

# CORNELL UNIVERSITY STATION NEWS GENEVA NEW YORK

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## BRIEFS

### NYSAES ON THE WEB

The New York State Agricultural Experiment Station has a new presence on the World Wide Web. The work is the result of a team effort that involved Communications Services and Computer Services—particularly John Zakour, Ron Pool, and Elaine Gotham. The site is still “under construction” (is WEB work ever finished?), but bears surfing if you have not been Webbing lately. The address is (<http://www.nysaes.cornell.edu>).

### ‘BANNER YEAR’ FOR FST STUDENTS

Graduate students in Geneva’s FST department have received numerous awards in the last several months. “These are exciting developments,” said Mark McLellan, FST Acting Chairman. “As these students continue their thesis research with faculty at the Experiment Station, they are having a banner year.”

Tina Carrasco, who works with Karl Siebert, was awarded a scholarship from the national American Society of Enology & Viticulture. She also won the Eastern Wine Industry Scholarship from the American Society of Enology and Viticulture Eastern Section.

Jennifer Roy, who was working with Terry Acree, won an IFT Flavor Chemists Memorial Fellowship. She will be finishing her Ph.D. at the University of Massachusetts.

Julia Fu, Angela Lim and Angela Ichwan won Herzog Graduate Research Awards. In addition, Ichwan also won the Albert Flegenheimer Award. Fu and Lim work with Malcolm Bourne. Ichwan works with Mark McLellan.

Deborah Roberts, who works with Terry Acree, won the IFS Colyer Award, and the IFT Kraft General Foods Award.

At the 1995 Institute of Food Technologists Annual Meeting in Anaheim, Califor-

(Continued on page 3)

## RUSSIAN AND STATION SCIENTISTS PLAN FUTURE COLLABORATIONS ON APPLE



*Jim McFerson, Phil Forsline, and Vladimir V. Ponomarenko, curator of the apple collection at the N.I. Vavilov Research Institute of Plant Industry, in St. Petersburg, examine the Experiment Station’s collection of Malus sieversii. Phil Forsline and Herb Aldwinckle are evaluating M. sieversii for resistance to apple scab, cedar apple rust, and fire blight.*

For years, the Iron Curtain obscured USSR scientific endeavor in a cloak and dagger aura of high secrecy. Political and geographical boundaries extended from laboratories to libraries to space and were tightly guarded. In the last decade, geo-political boundaries have become more transparent, freeing scientists from the former Soviet Union to become involved with their stateside colleagues in projects of increasing communication and collaboration.

At the New York State Agricultural Experiment Station in Geneva, NY, the end of the Cold War and the subsequent break-up of the Soviet Union means that horticulturists are now free to collaborate on one of the great botanical controversies: the origin of apple. The “gardens” of mutual interest are wild apple forests in the mountainous regions of Central Asia where wild *Malus* is concentrated.

“Apple genetics and germplasm of wild *Malus* are of mutual interest in hybridization with *Malus domestica* to produce apples with increased disease and insect resistance,” said Vladimir V. Ponomarenko, curator of the *Malus* germplasm collection at the N.I. Vavilov Research Institute of Plant Industry, in St. Petersburg, Russia. Ponomarenko’s “wildest dream” was to visit the 3,000 accessions of apple in the USDA-ARS collection at Geneva, as he did recently during a three-week “apple” tour of the United States.

(Continued on page 2)

(APPLE, Cont.)

Ponomarenko's botanical explorations for the origins of apple have taken him on 34 collecting missions throughout the entire territory of the former USSR. They parallel similar missions made by Philip L. Forsline, horticulturist and curator of the USDA-ARS Plant Genetic Resources Unit (PGRU), and Herb Aldwinckle, chairman of the Department of Plant Pathology, who have trekked to Kazakhstan and other middle Asian countries on similar missions. PGRU hosted Ponomarenko along with Cornell's departments of Plant Pathology and Horticultural Sciences.

"Ponomarenko is the most accurate *Malus* taxonomist in the former USSR," said Forsline. "Our plan at PGRU is to make some collections of these species in collaboration with Ponomarenko. In addition, we will visit collections in other areas of Russia like Maykop and Volgograd. We also may develop three-way collaborations with colleagues in China."

Forsline is planning a return-trip to Kazakhstan in August/September with former Cornell graduate student Elizabeth Dickson and James Luby, from the University of Minnesota, to make additional collections of *M. sieversii* in areas that were not collected in previously. Ponomarenko will accompany them to certain locales.

During his week-long visit at Geneva, Ponomarenko conducted a seminar and several roundtable discussions on his four-fold areas of interests: the Vavilov Institute; genetic resources of wild *Malus* of the former USSR and their utilization in breeding; origins and evolution of *Malus domestica*; and the current state of apple breeding in Russia.

"There is an old Russian saying 'it is better once to see than 100 times to hear about it,'" said Ponomarenko. That said, with the aid of an interpreter, he showed Station horticulturists slides that amply demonstrated the incredibly diverse adaptations that apple has made in Europe, Caucasus, Middle Asia, Eastern Siberia, and the Far East. Apples range in size from berries to

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half-pounders; in color from white to yellow, green and red; in taste from sweet to bitter; in flowers from common five-petaled varieties to multi-petaled to no petals at all; and in form from single to multi-trunked; from bush to 200-year-old tree. In his discussions, Ponomarenko concentrated on *M. sylvestris*, *M. orientales*, *M. sieversii*, and *M. baccata*—wild species that contributed to the domestic apple as we know it.

Apples of Western and Central Europe (*M. sylvestris*) tend to be extremely resistant to dry, hot summers, and dry, cold winters. Apples of the Caucasus (*M. orientalis*) are tall, late blooming, trees that produce prodigious quantities of bitter-tasting fruit. Apples of Central Asia (*M. sieversii*) are resistant to a very hot, dry climate, and produce large red, yellow and green, bitter- and sweet-tasting, fruits that are easily stored for up to three months in the most casual stone cellars. Apples of Eastern Siberia (*M. baccata*) are hardy in -40°C winters and grow multi-trunked, extremely dwarfed forms that are productive after only two years growth. In the Far East, *M. manshurica* produce cherry-size fruit in a very humid climate on rocky, salt- and wind-swept cliffs overlooking the Pacific Ocean.

*M. sieversii* and other species have been hybridized by man over thousands of years, noted Ponomarenko. In general, the species migrated along trade, silk, and spice routes from Middle Asia into Eastern and then Western Europe—assessments with which horticulturists at the Experiment Station generally agree. *M. sieversii* contributed genes for choice qualities like sweetness, flavor, and size to *M. domestica*, noted Ponomarenko.

"Ponomarenko's treatment of the genus recognized more species than we can easily distinguish," said horticulturist Norman Weeden, whose research focuses on the phylogenetic relationships within the genus. Weeden is at the forefront of species identification based on molecular markers—DNA technology that is relatively foreign to Ponomarenko and his colleagues in the former Soviet Union, where funding for apple research has "stabilized," but is in no way "certain," said Ponomarenko.

"I am most interested in *M. sieversii* among the Russian species," said plant pathologist Herb Aldwinckle. "We now have quite good collections of it from trips made to Kazakhstan in 1989 and 1993."

Aldwinckle and Forsline have made preliminary evaluations of samples of *M. sieversii* for resistance to apple scab, cedar apple rust, and fire blight—all important diseases to commercial apple growers in New York State. If *M. sieversii* is as resistant as horticulturists suspect, it could be extremely important in the breeding of new disease-resistant varieties at the Station.

While at the Station, Ponomarenko awarded medals of distinction from the Agriculture Academy at the Vavilov Institute to Ed Fackler, Jim McFerson, Phil Forsline, and Elizabeth Dickson. Fackler, an active member of the North American Fruit Explorers (NAFEX) and nurseryman from Indiana, assisted in arranging Ponomarenko's visit to the United States. Fackler's Rocky Meadow Orchard and Nursery is the site of one of the largest amateur Asian pear collections in this country.



## WPS TRAINING SCHEDULED

The following dates have been scheduled for Worker Protection Standard (WPS) training:

**Friday, July 14, 10:30 a.m., Staff Room, Jordan Hall**

Anyone who will or may come in contact with pesticides or pesticide residues applied in the field or greenhouse should be trained under this Act. Training consists of viewing a video that has been prepared by the Environmental Protection Agency plus a lecture presented by Steve Lerch, Field Research Unit, and Pat Krauss, Administration. An individual needs to be trained once every five years. A card is given to each employee who completes training that they may carry with them in their wallet or purse.

*(BRIEFS, Cont.)*

nia, FST faculty and graduate students presented 23 research papers on subjects as varied as process control of texture, flavor chemistry, new enzymes for food processing, rheology, toxicology, waste utilization, mechanisms of haze formation, and others. The meeting was attended by approximately 20,000 food scientists from across the country and around the world.

At the meeting, Frank McCafferty, a graduate student who works with Malcolm Bourne, took first place from among nine national finalists in the graduate research competition in the Fruit and Vegetable Division, for a paper he co-authored with Bourne on "Impact of Processing Conditions on the Anomalous Firming of Potatoes During Cooking in Water."

Not to be outdone by these up-and-coming food scientists, Dr. Daryl Lund, incoming dean of CALS, was awarded the 1995 International Award honoring his activities in promoting international exchange of ideas in food science and technology. He joins two Experiment Station faculty as past holders of this award: Malcolm Bourne and Keith Steinkraus.

**LIBRARY TO RECLASSIFY COLLECTION**

This summer, the Library will reclassify its entire collection from the Dewey Decimal system to that of the Library of Congress. This will bring the Geneva Library into conformity with the rest of the Cornell library system. The Dewey system is not appropriate for a research library of Geneva's stature. By switching to the LC system, there will also be cost savings, since Mann Library has agreed to catalog all new acquisitions, sparing Geneva the cost of hiring a cataloger.

All those who use the Library will see by mid-July two sets of "call numbers" posted on the online catalog which lists our holdings. Until the current volumes can be relabeled and reshelfed, the old Dewey call numbers will remain in effect. There may be disruptions as we relabel material, and then reshelve it according to the new system. The Entomology and Plant Pathology libraries in Barton will be the first collections to be converted and will serve as tests for the larger move in Jordan Hall.

Reshelfing should begin by mid-August. Library staff will do everything possible to make the transition as smooth and problem free as possible, but we ask for everyone's patience and understanding during this trying period of transition. If you have any questions, please do not hesitate to call upon Peter, Jeanne or Ben at x214.

**GENEVA CHOSEN AS INTERPRETIVE CENTER SITE**

Geneva has been successful in competitively outbidding Canandaigua as the site for the Finger Lakes Interpretive Center, according to Pat Krauss, who was a hardworking member of the Geneva Site Committee. Judges Barber Conable (retired politician), Paul Howard (Executive Director, Genesee/Finger Lakes Regional Planning Office), and Diane Kuehn (Extension Specialist, New York Sea Grant), made the determination according to 11 criteria.

"According to the judges, both cities were equal in many criteria, but Geneva 'surpassed' Canandaigua in: interpretive/educational ideas; access to the site from main roads; expansion capacity of the facility; central location in the Finger Lakes Region, and degree of readiness to proceed with the project," said Krauss.

The Center will be located on a 6.8-acre site right on the shore of Seneca Lake, near the city-owned building which is occupied by the Chamber of Commerce. Among other things, it will trace the history of the development of the Finger Lakes Region, concentrate on the people who developed this region, and define the importance of agriculture in the Finger Lakes. A special room will be kept cooler than any other room in the Center so the history of the glaciers that formed the 11 Finger Lakes can be traced. Reflecting pools depicting each of the lakes will be located outside the Center on the lake side so that visitors will be able to pick areas of the region that they would like to visit and learn more about.

The project committee worked for many months preparing a detailed proposal, complete with architectural renderings of how the Center will look. A verbal presentation was made before the panel of judges several weeks ago.

The committee consisted of Geneva city officials, including Sanford Miller, City Manager; Richard Rising, Director of Economic Development; Valerie Bassett, Economic Planning; Martha Wilson, Director of Recreation; Belinda Venuti, Director Seneca Lake Whale Watch; Don Woodrow, Hobart and William Smith Colleges; Paul Kirsch, retired superintendent of the Geneva Public Schools; Charles Bauder, Director, Geneva Historical Society; Joan Braun, an active community citizen; and Krauss.

"The work is just beginning," noted Krauss. "Now we need to raise the \$4 million necessary to build and staff the facility." Annual operating funds will approach \$600,000. Sources of possible funding are being explored now. The facility is to be open to the public two to four years from now and should substantially increase tourism in Geneva.

**MISSING FROM THE LIBRARY**

Please check your office and lab for this missing book. Please return to Jordan Hall Library. Thank you for your cooperation.



- 635.1 Vegetable crops breeding
- C93 Troy Mansell Currence
- 664.01 Food hydrocolloids, vol. 1 & 2
- F74 Martin Glicksman

**PEOPLE**

**Notes of Thanks:**

- We would like to thank everyone at the Station for their thoughts, cards, and support during our time of loss. *The Clise Family*
- I would like to thank everyone in B&P and the Greenhouse for their card and support following the recent death of my grandfather. These were bright points during a time of sorrow for my family. *Scott Shoemaker*
- I would like to thank everyone for the cards and well wishes during my recent absence. They helped get me back, and soon to full speed. *Matt Lewis*



**MATT'S MAILBAG**

**New International Rates Take Effect July 9**

New International rates and fees will be implemented Sunday, July 9, by the U.S. Postal Service. Below are some commonly used International Services and their new rates:

**Letters and Letter Packages:**

All Countries other than Canada & Mexico

First 1/2 ounce	.60
Each additional 1/2 ounce	.40

Canada

First 1/2 ounce	.46
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Mexico

First 1/2 ounce	.40
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**Postcards:**

Canada	.40
Mexico	.35
All others	.50

**Aerogrammes**

All countries	.50
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For other rates, call Matt in the mail room at x251 or check the 1995 Postage Rates on the World Wide Web. The address is: <http://www.usps.gov/consumer/95rates.htm> (You may want to add this one to your bookmarks for a quick reference.)

**THIS WEEK'S CALENDAR**

JULY 7-14, 1995

**EVENTS • MEETINGS**

**Friday, July 14**

Staff Room, Jordan Hall

*Worker Protection Standard Training*

**Volleyball**

Monday nights at 6:00 pm

Pavilion Area Behind Jordan Hall

Everyone's Welcome



**SEMINAR**

**SAGES**

**Date:** Wednesday, July 12  
**Time:** 2:30 pm  
**Place:** Conference Room, Food Science  
**Speaker:** Ron Roal  
**Topic:** Dialup Macintosh—Networking at the Station

*Ice tea, coffee, and cookies provided*

**CLASSIFIED**

**FORSALE:** Fruit Testing has the following items for sale: Tan Sec. Chair, \$10; Radio, \$5; Used reformatored disks, \$1.00 for box of 10; Coat "tree", \$5; Notebooks, \$1.00 each; Box of hanging folders, \$1.00; Table on wheels, \$2.00; Copier labels-33 up, three unopened boxes for \$5.00 each; two-line telephone, \$5.00; one-line telephone, \$2.00; Toner cartridge #95A HP92285A for \$10.00. Fits Apple Laserwriter, Cannon, HP, OMS Smartwriter, and Wang. Contact Helen (205) between 8-12. Can be seen in 116 Hedrick Hall.

**FOR SALE:** Educational software: Math Rabbit and Reader Rabbit, in original boxes, compatible with System 7; both for \$25. Call Bill Edinger at x277.

**WANTED:** Hard drive for use with MacPlus. 20-40 MB is big enough. Must be in good running condition. Call Bill at x277.

**FOR SALE:** 14 Foot Sailboat. Laser #7109. Call Ed Glass at x337 (AM) or 789-3797 (PM).

**FOR SALE:** 1982 Corvette, has 37,500 miles, automatic, black exterior/red leather interior, T-Tops, all options, in good condition. Must sell, new summer toy arriving. Asking \$11,000. Call Charlene at x203.

**CIRCUS:** The Lyons Fire Department is sponsoring a circus on Saturday, July 15. There will be two shows—5:00 and 7:30 pm. Watch for the tent on Old Clyde Road in Lyons. Presale tickets are \$6.00. \$8.00 on the day of the show. Children under 11 are free with adult. Call Jeff at x306 for presale tickets.

**Station Club Picnic**



1/2 Chicken, Tossed Salad, Salt Potatoes, Sweet Corn or Macaroni Salad, Roll & Butter, Fruit Cocktail  
 Non-Members: **\$7**                      Members: **\$5**

2 Hot Dogs w/ rolls, Tossed Salad, Salt Potatoes, Sweet Corn or Macaroni Salad, Roll & Butter, Fruit Cocktail  
 Non-Members: **\$5**                      Members: **\$3**

**There will be two Surprise Bands to dance the night away.**

See your department representative for tickets.