



# STATION NEWS

New York State Agricultural Experiment Station, Geneva, New York

VOLUME LXXXIX • NO 18  
Aug. 29 - Sept. 12, 2008

## BRIEFS

### A Day with Germplasm Resources Workshop Held

A group of 35 extension educators, Cornell scientists and graduate students, and industry people from throughout the Northeast, Midwest and Ontario converged on the Experiment Station August 11 and 12 for a workshop highlighting grape genetics and breeding research at Geneva.

The workshop, organized by Senior Extension Associate Tim Martinson, USDA Agricultural Research Service (ARS) scientists Peter Cousins, Chuck Simon, Amanda Garris, and Cornell scientist Bruce Reisch, Dept. of Horticultural Sciences at Geneva, featured morning lectures and a full afternoon of field tours of grape collections and breeding program field evaluation sites at Experiment Station vineyards.

"With establishment of the USDA's Grape Genetics Research Unit, continued characterization and expansion of the Plant Genetics Resource Unit's cool-climate grapevine collection, and Cornell's successful grape breeding program, the resources devoted to understanding grapevine genetics at Geneva have expanded greatly over the past five years," said Martinson. "We wanted to show participants how this effort - from DNA sequencing through field evaluations of new cultivars - works together to ultimately incorporate improved traits into new varieties to benefit the industry."

The morning program featured presentations on the PGRU's Grapevine Germplasm collections by grape curator Chuck Simon, presentations by Gan-Yuan Zhong (Overview of GGRU), program leader at Grape Genetics Research Unit (GGRU), GGRU scientists Peter Cousins (Rootstock Breeding) and

*(Continued on page 2)*

## Soderlund Receives 2008 International Award for Research in Agrochemicals

David Soderlund, Professor of Insecticide Toxicology and Chair of the Department of Entomology, received the 2008 American Chemical Society (ACS) International Award for Research in Agrochemicals, sponsored by BASF Corporation and DuPont Crop Protection, at the ACS National Meeting and Exposition in Philadelphia. The award, conferred annually by the Agrochemical Division of the ACS, recognized Soderlund's "pioneering research and continuing discoveries on the insect sodium channel and insecticides that disrupt its action." The award recognition included a one-day symposium organized by the ACS Agrochemical Division in Soderlund's honor on the topic 'Molecular Mechanisms of Insecticide Action, Selectivity, and Resistance.'

Soderlund is recognized internationally as a leading authority on the toxicology and mode of action of insecticides affecting ion channels. His research, which has spanned more than 30 years, has produced numerous important contributions to the science of insecticide toxicology. However, he is best known for his research on the pyrethroids and other compounds affecting voltage-sensitive sodium channels, the work that formed the basis of this award.

Soderlund was among the first in the insecticide toxicology research community to incorporate the emerging tools and strategies of molecular neurobiology in research on insecticide action and resistance. His laboratory developed molecular probes to isolate sodium channel gene sequences orthologous to the para sodium channel gene of *Drosophila melanogaster*, which led to the molecular cloning of the house fly ortholog of para and the identification of sequence polymorphisms in susceptible and pyrethroid-resistant flies. The Soderlund group also achieved the functional heterologous expression of house fly sodium channels in the oocytes of the frog, *Xenopus laevis*, and employed this system to demonstrate that sodium channel sequence polymorphisms associated with pyrethroid resistance reduced the insecticide sensitivity of the channel. Soderlund's recent research has also exploited the heterologous functional expression of sodium channels to explore the actions of pyrethroid and pyrazoline-type insecticides on cloned rat and human sodium channel isoforms. These studies not only have identified differences in sensitivity between isoforms but also provide an experimental platform for the study of the effects of insecticides on human sodium channels, an area of research with important regulatory implications.

Soderlund received a B.S. degree in Biology from Pacific Lutheran University in 1971 and a Ph.D. in Entomology from the University of California at Berkeley in 1976. After postdoctoral

*(Continued on page 3)*



*D. Soderlund*



Amanda Garris (Grapevine Genomics), and Bruce Reisch (Cornell Grapevine Breeding Program).

The afternoon was devoted to field visits to grapevine blocks at three field locations. First stop was at the McCarthy farm to see the Grapevine Germplasm collection (led by Peter Cousins and Chuck Simon) and the no-spray breeding program nursery (Bruce Reisch, Steve Luce, and Pat Wallace). The group then visited the 'No-spray' evaluation block at the Robbins Farm. Final stop was at Research South, where Justine Vanden Heuvel talked about her 2006 field planting established to test spacing, training, and other viticultural aspects of new varieties and selections, including Noiret, NY76.0844.24, and NY95.0301.01. The group finished the day at Bruce's 'Demo Block', which includes heritage varieties, named Cornell varieties, and examples from other breeding programs.

The workshop was preceded by a 'Welcome Barbecue' in the Jordan Hall Pavillion, featuring commercial Finger Lakes wines made from Cayuga White, Melody, Traminette, Noiret, Corot Noir, and Valvin Muscat - all products of the Cornell breeding Program.

*Submitted by  
Tim Martison*

### Wine Librarians Association Meeting

The Wine Librarians Association will meet in Geneva and Ithaca September 15, 2008 - September 16, 2008.

The meeting will feature two days of interaction with individuals who have a passion for the literature of wine and grapes including librarians, writers, historians, collectors, and others interested in the business, science, history and the romance of wine and grapes.

A business meeting will be held on Monday, September 15 after which there will be a presentation about the Traminette grape and a Traminette wine tasting, followed by tours of the Vinification and Brewing laboratories and the USDA Grape Repository.

On Tuesday, September 16 there will be tours of wine and grape exhibits at several libraries on the Cornell Ithaca campus followed by an afternoon of wine and grape history talks. The day will end with a presentation on the current status and future of the NY wine and grape

*(Continued on page 3)*

## Cornell Student Receives 2008 Perrine Scholarship

**X**iaohua Yang, a graduate student in Susan Brown's program in the Department of Horticultural Sciences has been named the recipient of the 2008 Perrine Scholarship.

"Xiaohua Yang is researching a unique naturally dwarf apple tree form (a breeding selection) that is reduced in plant vigor yet fruitful (which is unusual in genetic dwarfs)," Brown said. "This unique tree was used in crosses and is segregating for standard and dwarf tree habit. Xiaohua is studying these progenies (offspring) to develop markers and map this gene for dwarfing and to determine if it is similar to dwarfing conferred by rootstocks."

"I am very much honored to be selected as the recipient of the 2008 Perrine Scholarship,"

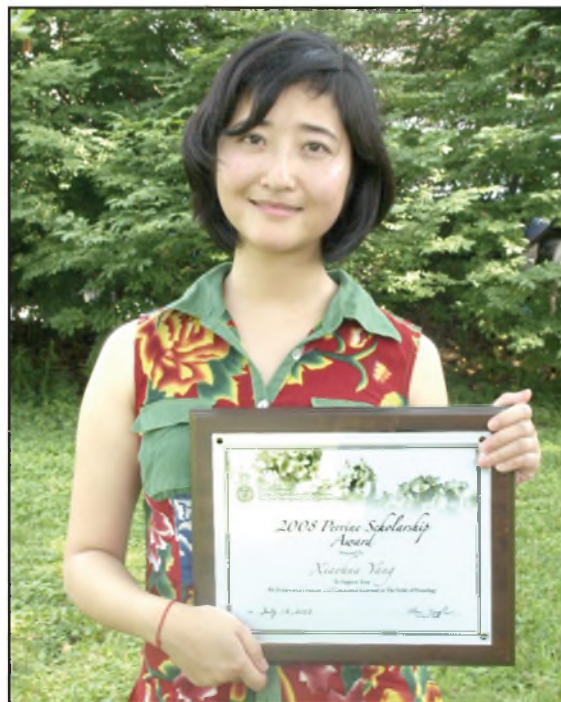
said Yang. "My research is focused on the genes involved in apple tree architecture hoping that apple trees with better form can be attained either from marker assisted selection or genetic modification. The scholarship is really precious to me and will make it possible for me to attend some really great professional meetings."

"It is wonderful to have Xiaohua as a member of our group," Brown said. "She works hard, is enthusiastic is a pleasure to be with, and brings a creative outlook to her research"

David Perrine, who established the gift in memory of his wife, Fanny French Perrine, was a prominent orchardist from Centralia, Illinois. He had met, and fell in love with Fanny while at Cornell in the 1920s. At the time, Fanny was a student in bacteriology and David a student in pomology. Fanny, who was frequently called 'Superwoman' by her family, ran many of the farm's activities and was deeply involved in community activities.

David and his brother, Alden (Cornell '47), were partners in the Perrine Orchard, farming 600 acres of peaches, apples, and pears. Jim Cummins, professor emeritus of horticultural sciences at Geneva, who has known and admired the Perrine family for many years, said David was the 'best fruit grower in the Midwest.' He had a long and distinguished career as an apple and peach grower, and was a leader in the fruit industry. He was president of the National Peach Council, a member of the National Apple Institute, and president of the Illinois State Horticultural Society. He died in 1996.

The Perrines were instrumental in Cummins continuing his studies in pomology at Cornell after he finished his undergraduate work at the University of Illinois. The families maintained a close friendship throughout the years.



*X. Yang*

*J. Ogradnick*



## Cornell Student Named Shaulis Scholarship Recipient

**M**isha Kwasniewski, an undergraduate student in the Viticulture and Enology program at Cornell, has been named the recipient of the 2008 Nelson Shaulis Award.

The Award was established in 1978 in honor of then retiring viticulturist Nelson J. Shaulis. The goal of the Shaulis scholarship is to encourage students to enter the field of viticulture as a career by working directly with Cornell grape research and extension faculty.

Kwasniewski's research project is being conducted in Justine Vanden Heuvel's lab in the department of horticultural sciences.

"Misha is working with Gavin Sacks, Kathy Arnink, and myself on a project investigating the effect of timing of leaf removal on flavors and aromas of Riesling," Vanden Heuvel said. "As part of the project, Misha will be making wine from the treatments and doing both a chemical and sensory analysis to determine the impact of the treatments on perceived wine quality. In addition to the Riesling project, he's also been working with Greg Loeb and Rick Dunst at Fredonia on a phylloxera project, and has spent some time with other grape and wine researchers here at the Station."

"It's a great honor to receive a scholarship in honor of Nelson Shaulis who did so much for the grape industry in this state. It has been an amazing experience to get to learn from so many people at Cornell who are involved in viticulture and enology research," Kwasniewski said. "Despite the fact that the growing season is a hectic time of the year, everyone has been very generous with their time. I have learned more this summer than I would have thought possible. This scholarship has allowed for a truly unique experience that has solidified my interest in research and pursuing grad school. It is an exciting time to be involved with viticulture in NY State, and I am happy to be part of it."

"Misha is a bright, enthusiastic student and it's a pleasure to have him as a member of our research group," Vanden Heuvel said.

During his long and active career, Nelson Shaulis conducted important research on factors to consider in siting vineyards, grapevine physiology, vineyard mechanization and management, mineral nutrition, rootstocks, and canopy microclimates. He was an expert in defining attributes of site, growth, canopy, and crop in vineyard management. He also pioneered the current interest in canopy management by documenting the negative impact of interior leaf shading and by providing new ways of measuring and expressing canopy density.

Shaulis made two major contributions that have had a profound effect on the grape industry. The first was a training system for grapes called the Geneva Double Curtain (GDC). The system effectively doubles the cordon length per acre of vineyard and is used to train vines of certain vigorous varieties of grapes used for processing. A second significant contribution was Shaulis' work with cooperators from Cornell's Department of Agricultural Engineering that resulted in the development of the mechanical grape harvester. Today, harvesters patterned after this design are used to harvest virtually all the commercial grapes grown in New York and many other locales.



*M. Kwasniewski*

*J. Ogrodnick*

*(SODERLUND, continued)*

research at Rothamsted Experimental Station in the U.K., he joined the faculty of the Entomology Department at the Experiment Station, where he is currently Professor of Insecticide Toxicology and Chair of the department. Soderlund is also Director of the Northeast Region IR-4 Program, part of a national cooperative program between the USDA and land grant universities to register crop protection tools for use on specialty crops.

*(BRIEFS, continued)*

industry by Jim Trezise, President of the NY Wine and Grape Foundation and a reception at Song of the Vine: A History of Wine exhibit hosted by the Rare and Manuscripts Collection, Kroch Library.

There is no meeting registration fee. There are, however, fees for dinners and transportation. All attendees should pre-register preferably by September 7, 2008. Station faculty and staff are welcome to register and participate.

For registration materials, online brochure and other information go to: <http://www.nysaes.cornell.edu/hp/events/detail.php?id=89>

### Industry Award

The Industry Award of the New York Wine & Grape Foundation was presented on Wednesday to Senator Catharine Young in the heart of the district she represents, which accounts for about two thirds of all grapes grown in New York. The Industry Award is presented to an individual who has made major contributions in advancing the interests of the New York grape and wine industry. The award would have been presented at NYWGF's "Unity Banquet" in late March, but Senator Young stayed in Albany to conclude budget negotiations on behalf of New York agriculture. As Chair of the Agriculture Committee, Senator Young has played a vital leadership role in several ways. Her support of NYWGF's promotion and research programs has benefited grape growers, grape juice producers, and wineries in all regions of the State. She also helped secure funding for a new Cornell Lake Erie Viticultural Research Laboratory, which is scheduled to open in 2009; and led the creation of the Legislative Wine & Grape Caucus comprised of Senators and Assembly members with an interest in our industry, even including people from New York City who have no grapes in their districts.



## CALENDAR of EVENTS AUG. 29 - SEPT. 12, 2008

### CHAIRS MEETING

**Date:** Friday, September 12, 2008  
**Time:** 8:30 AM  
**Place:** Director's office

### LTC

### PHOTOSHOP SERIES PART 6

**Date:** Thursday, September 4, 2008  
**Time:** 9 - 11 AM  
**Place:** Jordan Hall Staff Room  
**Instructor:** Jane Irwin  
**This is the last Photoshop class for the year**

### SCIFINDER SCHOLAR

**Date:** Thursday, September 11, 2008  
**Time:** Call Jane Irwin at x2294 or e-mail mji1 for individual time appointments  
**Place:** Jordan Hall Staff Room  
**Instructor:** Jane Irwin

### SEMINARS

#### FOOD SCIENCE

**Date:** Wednesday, September 3, 2008  
**Time:** 11 AM  
**Place:** FST Conference Room  
**Title:** SNP Discovery in Grape Using Short-read Next-generation Solexa Sequencing  
**Speaker:** Sean Myles, Ithaca

**Date:** Wednesday, September 10, 2008  
**Time:** 4 PM  
**Place:** FST Conference Room  
**Title:** Sweet and Skunky: The Chemistry of Attraction and Defense in Sky Pilot Flowers  
**Speaker:** Robert Raguso, Ithaca

#### ENTOMOLOGY

**Date:** Tuesday, September 9, 2008  
**Time:** 10:30 AM  
**Place:** \*A134 Barton Lab  
**Title:** Seasonal Patterns of Aphid Vector Dispersal and Cucumber Mosaic Virus in Snap Bean Fields: Implications for Management  
**Speaker:** Brian Nault, Geneva

### CLASSIFIEDS

**FOR SALE:** 2002, 8 passenger Ford E 150 van. 4.6 L V-8. One owner, 54, 500 miles. \$ 6,300. Can bring in to show. Call or e-mail John Ludwig. JWL2 or 539-3155.

**FOR SALE:** 1994 Saturn SL1, red, 211 K miles. AC, CC, single compact disc, AM/FM stereo, PW, PDL, MTrans, 4D. Good condition, asking \$500. Contact Weiwei Li, w1297 or call 787-2453

**FOR SALE:** Bowflex Blaze home gym. Like new. Used little in 1 year. Half price at \$450. JWL2 or 539-3155.

**HOUSE FOR SALE:** West side, half mile south of Geneva Country Club. Built 1977; new siding, new roof; 4 bdrms, 2 ba; attached garage; finished W/O basement. 2800 sq. ft. All rooms have lake view. Circulating fireplace. Carpeted. Fruit trees and flowers. Jim & Cindy Cummins, 4233 Glass Factory Bay, (315) 789-7083.

### STATION SAFETY COMMITTEE SAFETY TIPS

#### Hazardous Waste Disposal Guideline

All University chemical hazardous wastes are subject to inspection and enforcement action by the U.S. Environmental Protection Agency or the NY Department of Environmental Conservation. Are you in compliance with the hazardous waste chemical storage and disposal regulations? For information about Cornell University's Hazardous Waste Management Program please visit the Cornell University Environmental Health & Safety web site at [http://www.ehs.cornell.edu/chem\\_lab\\_safety/chem\\_waste.cfm](http://www.ehs.cornell.edu/chem_lab_safety/chem_waste.cfm).

### Literacy Volunteers of Ontario County Tutor Training Orientation

Designed to introduce potential tutors to the tutor training program  
Thursday, August 28, 6:30 -7:30 PM,  
Geneva Public Library

#### Tutor Training Workshop

(Combined Basic Literacy and English as a Second Language)  
FLCC Geneva Campus, Geneva  
Tuesdays and Thursdays, 6-9 PM  
September 9 - October 2  
Follow-up Session: November 13

Call Literacy Volunteers of Ontario County at 585-396-1686 to register or for more information.



### Station Retiree's Annual Picnic

Jordan Hall Pavilion Area  
September 5, 2008  
at Noon.

Please make reservations  
by August 27  
call Sue Dwyer at  
781-0360

### TAEKARDIO AND BOKKENKICK

Classes begin the week of September 8

**Days:** Monday, TaeKardio  
Wednesday, Bokkenkick  
Thursday, TaeKardio  
**Time:** 11:30 AM-12:30 PM  
**Place:** Saw Dust Cafe  
**Cost:** \$25 for 2 classes/week or  
\$30 for 3 classes/week  
**Instructor:** Tina Felice, Geneva Martial Arts

Floor mat, water bottle and exercise clothes suggested