STATION NEWS

New York State Agricultural Experiment Station, Geneva, New York

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July 21 - Aug. 4, 2006

BRIEFS

Beating the Heat

I'm sure everyone has noticed that it's getting hot outside! Please be aware that heat stress is a very dangerous and sometimes deadly illness that is easily preventable.

One of the primary causes of heat stress is dehydration. It is possible to lose 5 liters of sweat per day in extremely hot and humid conditions, when doing strenuous work, and/or when wearing protective clothing. Be mindful of replacing lost fluids!

Some tips:

- Anticipate conditions that will increase the need for water, including the use of protective clothing, high humidity, high temperatures, and difficulty of work.
- "Prehydrate" by drinking 8-16 fluid ounces of water before work begins.
- Drink 4-8 ounces every 15-20 minutes during work.
- Continue to drink water after work, but don't overhydrate.
- Keep water within easy reach; back-pack style hydration systems can be very useful but should not be worn in hazardous environments (e.g., when applying pesticides); back-pack style hydration units have the added advantage of cooling the back.
- Drink cool water - your body will absorb it more quickly.
- Don't let yourself get thirsty - thirst indicates a state of existing dehydration.
- Avoid alcohol and caffeinated beverages that act as diuretics and further dehydrate your body.
- Workers should acclimate themselves to warm temperatures and increased physical labor.

(Continued on page 2)

Cornell Releases Three New Wine Grapes

Cornell officially debuted three new wine grape varieties on July 10, 2006. Noiret, Corot noir and Valvin Muscat are broadly adapted to the wine-growing regions in the East and cool Northwest.

"These new grapes produce high-quality varietal wines that are superior to those currently available to eastern growers," said grape breeder Bruce Reisch, professor of horticultural sciences at the Experiment Station.

Reisch developed and tested the grapes with Thomas Henick-Kling, professor of enology at the Station and leader of Cornell's enology program.

The grapes were released at the 31st Annual Meeting of the American Society for Enology and Viticulture - Eastern Section, held July 9-11 in Rochester, N.Y.

Noiret (pronounced "nwahr-ay"), a mid-season red wine grape, is a complex interspecific hybrid resulting from a cross made in 1973 between NY65.0467.08 and Steuben. Corot noir (pronounced "kor-oh nwahr"), a mid- to late-season red wine grape, is a complex interspecific hybrid resulting from a cross made in 1970 between Seyve Villard 18-307 and Steuben. Both varieties are well suited for making single varietal and blended wines.

'Corot noir' *'Noiret'* *'Valvin Muscat'*

"Both Noiret and Corot noir represent distinct improvements in the red wine varietal options available to cold-climate grape growers," said Reisch. "Care should be taken to grow Noiret on sites less susceptible to extreme winter temperatures and downy mildew should be carefully controlled."

"Wines made from these grapes are free of the hybrid aromas typical of many other red hybrid grapes and have a complete tannin structure," said Henick-Kling. "Both wines have good deep red color. Noiret has notes of black pepper, with raspberry and mint aromas and a fine tannin structure. The mouthfeel of Corot noir is round and heavy and the tannins are big and a bit edgier than in Noiret."

Valvin Muscat is a mid-season white wine grape with a distinctive muscat flavor and aroma that is desirable for blending as well as for varietal wines. The complex interspecific hybrid grape resulted from a cross in 1962 between Couderc 299-35 (an interspecific hybrid known as Muscat du Moulin) and Muscat Ottonel.

"Valvin Muscat is recommended for the production of high-quality muscat wines," said Reisch. "Vines are well suited to good grape-growing sites in the Eastern United States, and should only be grown on suitable rootstocks." Some care should be exercised to control disease, and fruit should be picked when the muscat flavor reaches its peak, he noted.

"Historically, one of the unique strengths of Cornell's wine grape breeding program is the

(Continued on page 2)

(GRAPES, continued)

extent to which the breeders and enologists work together to select new grape crosses based on the flavor profile of the wine we are seeking to develop," said Henick-Kling. "All three of these new grapes were extensively screened and evaluated by the Cornell enology group, in the field by Bruce Reisch, and by cooperators in industry wineries. It is a team effort."

With the new varieties, which have trademarked names, the Station now has nine wine grapes to its credit. The previous Cornell releases are: Melody, Horizon, Cayuga White (grown widely throughout New York and beyond), Chardonel (now the number two grape in Missouri), Traminette (quickly gaining in popularity throughout the East), and GR 7 (used in red wine blends).

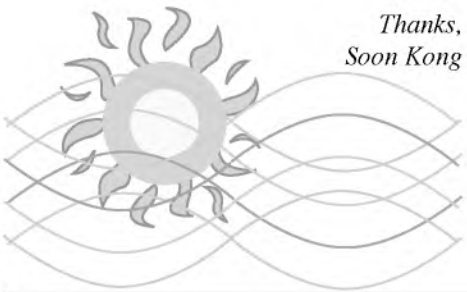
Vines of the three new grapes are available from licensed commercial nurseries. Contact Reisch <bir1@nysaes.cornell.edu> for a list of sources. Commercial nurseries may be licensed by contacting Cornell Research Foundation, 20 Thornwood Drive, Suite 105, Ithaca, NY, 14850 (phone: 607-257-1081; fax: 607-257-1015; e-mail <des33@cornell.edu>).

J. Ogrodnick

(HEAT, continued)

- Workers should alternate "light" and "heavy" work and indoor/outdoor work as much as possible.
- Consider cooling vests, designed to keep the body's core cool.
- Wear loose fitting clothing and keep skin as dry as possible to avoid heat rashes.
- Minimize harmful sun exposures by applying sunscreen before and during outdoor work.

Thanks,
Soon Kong



Sweet Cherry Field Day

The second annual sweet cherry field day was held on July 13 at the Station to present research done over the past several years on new varieties, rootstocks, management approaches and post-harvest handling of high quality sweet cherries grown in New York.

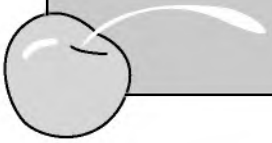
With about 40 growers in attendance, organizers Terence Robinson of horticultural sciences and Cornell Cooperative Extension fruit specialist Steve Hoying presented an integrated program that addressed the challenges of the area which include trees that do not meet their full life expectancy, overgrown trees with low yields of small, soft fruit; and fruit that is susceptible to rain cracking, bird predation and poor shelf life.

"In contrast to the desert growing area out west, we cannot shut off irrigation to manage the induction of hardening off for winter. If we have a wet fall, the trees go into winter more susceptible to cold damage," said horticultural sciences research technician Jay Freer. He added that only a few varieties stand up well to a cold season in New York, so the appropriate accommodations must be made.

Over the last ten years a number of new high quality varieties have been introduced to the region and several superior varieties are currently in the pipeline of the breeding program at the Station, according to Robinson. "There is a significant opportunity to produce the fruit in New York State since there is a large and lucrative market in the Northeast for high quality sweet cherries," he said.

The training system study entails:

- intensive preplant soil tiling
- planting trees on large berms
- planting new, larger and firmer varieties
- utilizing dwarfing rootstocks
- planting high tree densities (>300)
- use of the vertical axis training system which employs minimal pruning during first 4 years
- bud removal to obtain branching without pruning
- branch bending through the use of weights
- intensive spring and fall copper spray programs to control bacterial canker
- trickle irrigation
- a spray of gibberellic acid growth regulator to improve fruit firmness
- rain protection nets or Ca sprays to control rain cracking
- bird nets to eliminate bird predation
- immediate hydrocooling of the fruit after harvest
- MAP bags to extend shelf life



During the half-day session, Susan Brown, leader of the sweet cherry breeding program, put on a variety showcase for visitors to sample the elites, with help from Freer. Bob Andersen, professor emeritus in horticultural sciences and former leader of the program, was present to share his wealth of knowledge.

Hoying, who is also a member of the Lake Ontario fruit team, and Robinson took the group on a field visit to the high-density plantings at Loomis Farm and discussed methods of crack control and bird management. Growers took note of the rain shield system in place, while Craig Ingerick and Pete Griner of the field research unit (FRU) demonstrated the application of bird netting for the attendees.

"More growers are anticipating adding sweet cherries to their orchards and envision the use of covers for crack control and netting for bird control," said Brown, noting that some growers volunteered land to serve as test sites for Geneva cherry selections. "These meetings allow people to see the systems in place and also sample varieties and selections in order to assess the quality and decide which ones they want to test in their operations."

Juliet Carroll from the Integrated Pest Management program spoke about using copper fungicide to control bacterial canker, a devastating disease of sweet cherry. Gabino Regi-

(Continued on page 5)

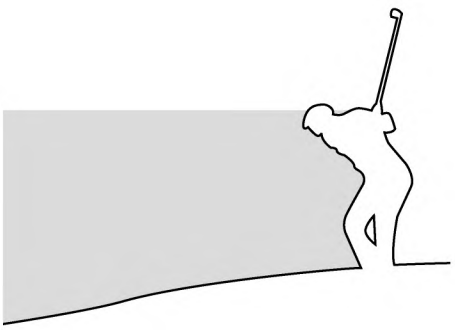
Station Golf Tournament Results

The 19th annual Station Club golf tournament was played on July 7 at Big Oak Country Club. The teams were greeted with sunny skies and great temperatures to test their golfing abilities. Forty-five golfers displayed their talents at a putting contest as the teams gathered and were given instructions on the tournament's style of play. The lucky winner of the putting contest was Joe Ototi.

Instructions were given by Dave Sharman about the style of play and the teams raced off to their holes to await the "shot gun" start. Tournament play was a five-person team scramble (each person's shot is from the previous best shot the team makes). Play moved very smoothly considering the wide range of golfing talent on the course, and the number of teams starting all at once. After three hours of exciting golf, all the uniquely named teams had finished nine holes, and headed into the clubhouse for dinner and prizes. Lots of prizes were handed out for match play as well as several door prize drawings. Thank you to Big Oak Country Club who donated four rounds of free golf for prize drawings. After food and award presentations many people went home winners.

Longest drive-Greg English-Loeb and Jennifer Grant. Closest to the pin-Harvey Hoch and Jan Forsline. Co-Champions were team "GoForEm" (Phil Forsline, Jan Forsline, Martin Goffinet, Dianne Emerson, Gail Emerson) and team "Pathotypes" (Harvey Hoch, Craig Dustin, Tom Burr, Andy Burr, Eric Platzer). Thanks to the many participants, Station Club, and all who helped make the tournament a success. See you next year!

Todd Holleran



EH&S, Geneva Fire Department Conduct Emergency Drill

The fire alarm in the Food Science and Technology building sounded at about 7:10 p.m. on July 18. Soon after several fire trucks from the Geneva Fire Department arrived on the scene, and within a few minutes two firefighters, clad in full turnout gear and breathing apparatus cautiously approached an overturned barrel and liquid stain near the FST shipping and receiving area.

Chief Bruce Moore confers with remediation team.

After communicating with Geneva Fire Chief, and retired Station employee, Bruce Moore located in a command post on the far west side of the FST parking lot, the two firefighters were joined by four others and together they quickly and efficiently contained the spill and cleaned up and decontaminated the area.

The scenario was part of an emergency hazardous material spill response exercise conducted by Environmental Health and Safety (EH&S) and the Geneva Fire Department. The objectives of the exercise, according to Soon Kong, were to improve and enhance communications, hazardous material mitigation and command operations for such an incident, and to evaluate the emergency response plan and the success of the training and development program.

" A proactive exercise like this will help protect and preserve life and property during an actual crisis by ensuring efficient, coordinated emergency services and responsible decision making," Kong said. "Another aspect of this exercise was to test the Emergency Preparedness Plan, that was developed by the Station Central Emergency Planning Committee. The plan worked well, and we will continue to evaluate and test the system in order to be prepared to meet any emergency."

Geneva firefighters work to contain spill.

"I think the exercise went very well," said Chief Moore. "We took it slow, everyone did what they were trained to do, and the job got done in an efficient manner."

"The Geneva Fire Department did a good job," Kong said. "I want to thank them and especially Chief Bruce Moore and Assistant Chief Jim McCormack for helping me coordinate this exercise."

Kong pointed out that the Station community can also play an important role in emergency management in the areas of prevention, and by following health and safety programs and procedures. "In addition, we need to know what to do in case of an emergency to protect and preserve life and property during a time of crisis," he said. "I strongly urge that everyone takes a few moments to be familiar with the Station Emergency Response Guide."

J. Ogrodnick

ASEV – Eastern Section Meeting Wrap-up

The 31st Annual American Society for Enology and Viticulture – Eastern Section Annual Conference and Symposium was held July 9-11 at the Hyatt Regency Hotel in Rochester, NY. The conference kicked off with a Keuka and Canandaigua Lake vineyard and winery tour that concluded at the new New York Wine and Culinary Center.

The Monday morning technical session was followed by the student paper competition with eleven presented papers in viticulture and enology from six universities. Ahmad Athamneh of Virginia Tech won the best viticulture paper with "A Comparison of Chemosensory and Analytical Analysis for Evaluating Grape Maturity." Stephanie Martin from Brock University won the best enology paper with "Yeast Osmoadaptive Response during Icewine Fermentation." Best paper awards were sponsored by National Grape Co-op (viticulture) and Lallemand Inc. (enology). Three Cornell students, I-Yuan Chiang, Gregory Hostetler, and Paul Brock, participated in the student session with strong research presentations.

Dr. Bruce Reisch capped off the Monday session with a presentation and tasting of the three new Cornell wine grape releases: 'Noiret,' 'Corot noir,' and 'Valvin Muscat.' The Tuesday symposium, "The Wine Industry vs. Multicolored Asian Lady Beetles," featured presentations from Dr. Gary Pickering (Brock) Roger Williams (Ohio State), Bill Hutchison, and Kevin Ker (Brock).

At the Awards Banquet, five ASEV-ES scholarship recipients were announced with two of the awards going to Cornell students. Scholarships were awarded to Amy Bowen and Jim Willwerth of Brock University, Nicolas Terrade from the University of Guelph, and Paul Brock and Christopher Gee of Cornell University.

The 2005-2006 ASEV-ES Board Chairperson Bruce Bordelon of Purdue University was succeeded by Murli Dharmadhikari of Iowa State University and Terry Bates of Cornell University was named Chair-Elect at the annual meeting. Thomas Henick-Kling currently serves on the ASEV-ES board of directors with Chris Stamp of Lakewood Vineyards and Treasurer Matt Doyle of Centerra Wine Company. Thomas, Chris, Matt, and the other directors will be joined this year by Hans Walter-Peterson of the Lake Erie Regional Grape Program.

T. Bates

Cornell Graduate Students Receive Scholarships

Two Geneva graduate students, Christopher Gee and Paul Brock, were awarded $1,000 scholarships for the 2005/2006 academic year from the American Society for Enology and Viticulture – Eastern Section (ASEV). The scholarships were announced at the 31st Annual Meeting of the ASEV that was held July 9 – 11 at the Hyatt Regency Hotel in Rochester.

Paul Brock is a student in Thomas Henick-Kling's lab studying the relationship of vine growth parameters of Cabernet Franc on the sensory perception of wine. Recommendation letters for Paul highlighted his enthusiasm and motivation for viticulture and enology research and his outstanding academic record. Christopher Gee is a student with Lance Cadle-Davidson of the Grape Genetics Research Unit studying disease resistance in wild and cultivated grapes maintained in the ARS germplasm collection. Recommendation letters for Christopher characterized his scholarly aptitude and talent for molecular biology laboratory research.

"The meeting was very valuable and gave me an opportunity to present my first research talk," Brock said. "Getting the scholarship was a great honor! To be recognized by ASEV-Eastern Section at this event means a lot." Brock went on to say that people took

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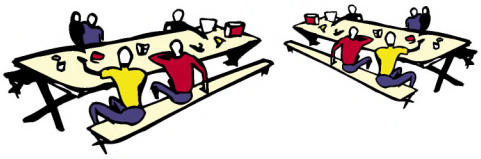
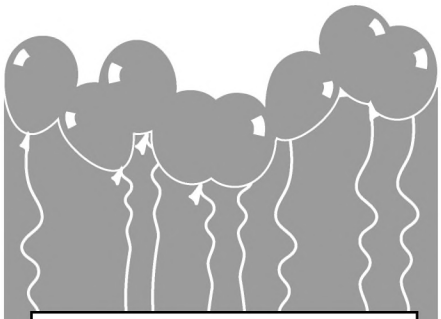
Attention Station Retirees

Please mark your calendars. Annual Picnic date is September 7, 2006 at the Pavilion behind Jordan Hall.



Cards for reservations will be mailed soon. If your address has changed, or if you are not receiving cards for Retiree events and would like to do so, please call Sue Dwyer at 315-781-0360.



You are invited to attend a Birthday celebration in honor of the late

Frank A. Lee

Professor of Food Science
Namesake and Benefactor
of the
Frank A. Lee Library

Please join us for cake and coffee

Friday, August 4, 2006

10:00 A.M.

Jordan Hall Pavilion

(2nd floor Lounge in the event of rain)

International Plant Management and Cornell University Release Two New Cherry Varieties

International Plant Management, Inc. and the New York State Agricultural Experiment Station (NYSAES), are pleased to announce the release of two new cherry varieties for the cherry processing industry.

'Andersen' is a large, stem-on cocktail cherry with long, thick, green stems that tends to bear in singles. It is very well suited for stem-on shaker harvest with an Ethephon treatment. It has good tree hardiness and health and is bacterial canker resistant. The cherry is large with a bright pink blush, the flesh is white. The fruit is very acid and not suited for retail sales.

Jim Bittner of Singer Farms, Appleton, NY reports, "We have harvested 'Andersen' with a trunk shaker for a number of years now. Even with a treatment of Ethephon, most cherries come off the tree with the stem. This year it was 100% with stems. I have never seen a cherry that shakes so easily but still has the stem attached to the cherry."

'Andersen' *'Nugent'*

'Andersen' was developed at the NYSAES as part of their on-going breeding program. It was bred and tested as NY 9295. 'Andersen' was named in honor of Robert Andersen, Professor Emeritus, at Cornell University, who was the cherry breeder at NYSAES until his retirement last year.

'Nugent' is the second variety that has been released. 'Nugent' is a completely yellow cherry that ripens with Gold and is an excellent pollenizer for other mid-early blooming varieties. It has better crack resistance than Gold and is pollinated by other brining varieties, but not Gold. Its average fruit weight is 8g, soluble solids are 20%. The tree is spreading and bears very heavily. 'Nugent' was selected from seedlings from Amy Lezzoni's program at Michigan State and was was tested at the Experiment Station as NY 518.

'Nugent' was named in honor of Jim Nugent, Coordinator of the Northwest Michigan Horticultural Research Station, Traverse City, MI. Nugent was named "Cherry Person of the Year" in 2006 and plans to retire at the end of this year.

"These two brining cherry releases provide growers with new well-adapted varieties for the East," said Susan Brown who leads Cornell's cherry breeding program. "These varieties also serve as excellent pollenizers. It is fitting that NY 9295 is named in honor of Bob Andersen, who lead cherry breeding at Cornell from 1990 until his retirement in 2005." Brown pointed out that Andersen was active in having selections tested not only in New York but in other production regions. "Trials in Michigan generated interest in these selections due to their uniqueness and the suitability of NY9295 for stem-on maraschino cherry production," she said.

For further information or availability of these varieties, please contact International Plant Management at 800-424-2765.

The pen is mightier than the sword, and considerably easier to write with.

– Marty Feldman

(CHERRY, continued)

nato, visiting scientist from the University of Chile in Santiago, talked about the effect of crop load management on fruit size through pruning techniques and the use of rootstocks. Olga Padilla-Zakour, director of the New York State Food Venture Center, took the group to cold storage facilities and demonstrated the process of hydrocooling and how to pack cherries in modified atmosphere bags (MAP bags) designed to increase shelf life three to six weeks.

"The growers who participated in the event were very appreciative and commented that they caught a glimpse of the possibilities sweet cherries offer with the complete package of management strategies that have been developed," said Robinson.

Jason Osborne from horticultural sciences and Herb Cooley from food science and technology assisted with preparations for the Station's sweet cherry field day, along with the FRU staff, who help to maintain the cherry tree plots.

T. Krakowiak

(SCHOLARSHIPS, continued)

notice and that he received many wishes of congratulations. "Because the scholarship winners are asked to help out, I was able to interact with nearly everyone at the meeting," he said. "I made many contacts that I am sure will be valuable in my future career. The meeting was a great experience overall and I learned a lot."

"This was my first interaction with ASEV-East, and I must say that I do not intend on it being my last," Gee said. "Pouring all those tastings was a good way to interact with nearly the entire group, and gave me an opportunity to meet other graduate students working in viticulture and enology." Gee characterized the banquet as a fantastic affair.

"In addition to the wonderful recognition from Terry Bates during the awarding of the scholarship, and the hearty congratulations from the other members, I thoroughly enjoyed interacting with people during the dinner," Gee said. "The wealth of knowledge of the various aspects of wine production (and consumption) left my head spinning. It was an education to be sure!"

J. Ogrodnick

Dave Combs (Entomology) and wife Jill on the birth of their new baby girl Kaitlyn Sophia. She was born Sunday, July 9th, weighed 6 lbs. 6 oz. and was 20 inches long.

Lorenza Conterno (Food Science & Technology) and Mikael Malnoy (Plant Pathology) on the birth of their new baby girl Sabrena. She was born Thursday, July 20th, weighed 6 lbs. 13 oz. and was 19.5 inches long.

Volunteers Needed

Please mark your calendars. Once again this year we will be looking for volunteers to work at the Experiment Station's Whale Watch tent on Saturday, August 19 from 11 am - 8 pm. Volunteers are needed to fill two-hour time slots. Watch for more details to follow.

Gemma Osborne

SENECA LAKE WHALE WATCH® Geneva NEW YORK

The Technology Farm was a hit at the recent Institute of Food Technologists (IFT) Food Expo in Orlando, Florida during late June. This trade show, which attracts food science, food technology and related food manufacturing professionals, is the world's largest annual convention of food grown, processed, manufactured and eaten worldwide. During the event The Cornell Agriculture & Food Technology Park shared information on how it is helping businesses take "Technology to the Table." Shown here (L to R) are representatives for The Technology Farm: Mariel Keppler, Trade Show Coordinator, Clark CSM Marketing Communications; Valerie Bassett, Director, City of Geneva Planning and Economic Development; Mark Toor, Public Relations Specialist, Clark CSM Marketing Communications; Marc Smith, (Assistant Director) NYSAES and Jennifer Drumluk, Office of Economic Development at the Cornell Center for Technology, Enterprise, and Commercialization.

CLASSIFIEDS

FOR SALE: Dodge Caravan 2000. $3,900 Good Condition. Cash only. Available July 15th. Mileage 122,000. Please contact Gabino Reginato at ghr4@cornell.edu or (315) 781-0670 between 6 -10 p.m.

FOR RENT: Spacious 2 Bedroom Apartment Available on Milton Street, 5 blocks from Hobart and William Smith Campus, 1 block from the heart of downtown Geneva, and a 20-25 minute walk (5 minute drive) to the Station. Apartment is unfurnished, has all wood floors, 1 bath and on street parking. No pets or smoking. $450 + utilities. Contact: Dia Mohan at 315-759-5242 or Alex Da Costa at aed4@cornell.edu

FOR SALE: Log Home. Approximately 1 acre lot overlooking Seneca Lake, 3-4 bedrooms, large sun-porch (12x31) with gas fire place, large established perennial gardens, front, side and back decks, 1 car + garage. 12 miles from NYSAES. Penn Yan Schools. $180,000. Contact Jane Irwin at mji4@cornell.edu or 315-730-0082

FOR RENT: Cottage, west side of Seneca Lake, 3.5 miles from Geneva, furnished, two bedrooms, large deck, great beach front, private. Weekly rental available in August and September, $1,500/wk, deposit required. No pets, no smoking, no huge reunions/parties. Perfect for quiet, small family gatherings. Contact rkcamera@gmail.com or dck2@cornell.edu