



BRIEFS

Sudden, Deep Cold Snap Could be Lethal to Some Finger Lakes Grape Varieties

Finger Lakes sybarites love to romance their regional vintages, but the reality is that grape growing is crop farming, and crop farming is largely weather dependent. With a mild central New York winter suddenly returning to normal or below-normal temperatures, area grape growers have reason to be worried for their crops.

Because of water retention at warmer temperatures followed by a sudden freeze, this year's harvests, from Chardonnays to Concords, are threatened by damage to buds that will produce this summer's grapes, say experts at Cornell's New York State Agricultural Experiment Station in Geneva, who are keeping a close watch on their vineyards.

"The main concern is with buds freezing," said Tim Martinson, senior extension associate at Geneva. Mild weather has caused grapevines to retain water and buds are more vulnerable to freeze-kill at 4 degrees higher than is typical. "The plants need to gradually lose water and acclimate. And with warm, moist conditions followed by unseasonably cold temperatures, that doesn't happen."

A sudden deep freeze could cause cells to burst in the vines' trunks and buds. In 2004-05, for example, temperatures suddenly plummeting to minus 10 degrees Fahrenheit destroyed 75 percent of such cold-sensitive grape crops as Riesling, Chardonnay and Pinot Noir, as well as many stone fruits.

A sudden cold front this week is sending overnight temperatures down into single digits at least once, with daily temperatures in the 30s and lows averaging about 14 degrees, said Mark Wysocki, state climatologist with Cornell's Department of Earth and Atmospheric Sciences. There will be

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Tim Martinson Assumes Statewide Leadership for Viticulture at Cornell

Timothy E. Martinson, who has directed the Finger Lakes Grape Program in Penn Yan for nearly a decade, will assume statewide responsibilities for coordination of viticulture extension programs in his new position as senior extension associate with Cornell Cooperative Extension (CCE).

"Dr. Martinson brings a wealth of viticulture knowledge and creativity in applied research and extension to the job," said CCE director Helene Dillard. "I am confident the statewide viticulture extension program will flourish under Tim's leadership, and provide countless benefits to the New York State grape industry."

In his dual appointment with the horticulture departments on the Geneva and Ithaca campuses in Cornell's College of Agriculture and Life Sciences (CALs), Martinson will further develop Cornell's nationally prominent applied research programs in grape and wine production to support and improve the viability and competitiveness of those industries in New York.

"I want to focus on a few areas that have strong economic and environmental impacts for growers and wineries in New York," said Martinson. "Growers spend an enormous amount of money and time protecting vines from winter injury. There is a need to improve practices and reduce costs in this area. We already have a statewide 'Sustainable Viticulture' project, and I think there is a great opportunity to take a closer look at practices for improving soil characteristics to produce better grapes with fewer fertilizer inputs."

In his new position, Martinson also expects to develop a new statewide newsletter featuring researcher profiles, project descriptions, and innovative grower practices.

Martinson received his M.S. and his Ph.D. in entomology, from Cornell, in 1988 and 1990, respectively. He then worked as a research support specialist until 1996 in the grape entomology program at Cornell.

Martinson's introduction to viticulture came during a five-year experiment at the Vineyard Research Lab in Fredonia when he was measuring the effects of grape leafhopper feeding on the yield of Concord grapes. "I came to realize how the effects of what happened one year carried over into the next, and that got me hooked on viticulture," said Martinson. After analyzing yield, cluster and pruning weights, his resulting publication appeared in the American Journal of Enology and Viticulture, and was ultimately awarded "Viticulture Paper of the Year" in 1997 by the American Society for Enology and Viticulture.

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Tim Martinson



(BRIEFS, continued)

a warming trend Wednesday and then unseasonably to seasonably cold temperatures Friday, Saturday and Sunday, he said.

"We're in for a bumpy ride for at least the next week or longer," Wysocki said.

"That's not welcome news for area grape growers. While all varieties can be damaged by sudden freezing, such varieties as Merlot, Pinot Gris, Cabernet Sauvignon, Pinot Noir and Gewürztraminer are particularly susceptible," said Martin Goffinet, senior research associate at the Geneva station. "The vinifera varieties (those that originated in Europe) and many hybrid varieties (many developed at Cornell) also are particularly vulnerable to winter cold snaps because they tend to acclimatize slowly," he said.

Bud growth actually begins the year before the grape emerges, Goffinet explained, so the following summer's embryonic buds are already growing while the vine producing the current season's harvest is in bloom. Under normal conditions, buds acclimatize to gradually cooling temperatures throughout a seasonable winter. American varieties, including Concord, Delaware and Catawba, acclimatize quickly but are vulnerable to spring frosts because they come out of winter dormancy earlier.

"Typically the first week of February is the coldest week with temperatures dipping down to zero or minus 5 Fahrenheit," Goffinet said. "In a typical year, vines seem to do okay; they've had lots of prep, and the buds are dry. We are concerned right now but we haven't yet had temperatures that can kill the vine. But if the trunks fill up with water, and there's a sudden hard freeze, they can actually split."

The most susceptible grape varieties, he said, will need about one to two weeks of cold (but not bud-killing cold) temperatures to regain the winter hardiness they would typically have at this time of year. Goffinet also said stone fruits — apricot, peaches and sweet cherries in particular — are also susceptible to warmer temperatures, and any precipitous drops in temperature "are going to be problematic for next season's crop."

"Between the poor fall ripening and warm winter temperatures, we're hoping we don't

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(MARTINSON, continued)

The wine and grape industries now have a \$3.3 billion impact on the New York state economy and there is a greater demand for coordination of statewide extension efforts. Cornell has expanded grape and wine outreach on Long Island and in the Hudson and Champlain valleys, created new enology and viticulture curricula for undergraduates, and plans to build a new research and extension laboratory facility in the Lake Erie region. Three new enology and viticulture faculty members have been hired, and a search is underway to fill the position recently vacated by Thomas Henick-Kling, who directed wine research and extension at Cornell since 1987. Following Martinson's promotion, the Finger Lakes Grape Program will also seek a new director.

"The transition of Tim Martinson to statewide responsibility represents a very positive step in Cornell's commitment to the New York State wine industry," said Chris Watkins, associate director of extension. "This is especially important at a time when additional resources at Cornell are being focused toward the industry, and faculty efforts are expanding in Geneva and Ithaca. The expertise and skills available at Cornell to help the industry continue to grow are world class, and I am certain that Tim will continue to enhance these efforts."

T. Krakowiak

Cornell Begins 'New Era' in Lake Erie Region Grape Research

Nearly 100 years have passed since the New York state legislature appropriated \$10,000 to the New York State Agricultural Experiment Station (NYSAES) to establish a grape research laboratory in Fredonia, N.Y. With a new site chosen and more than \$5 million of state funding appropriated in May 2006, Cornell University is poised to break ground for a new laboratory that will conduct innovative research and extension programs to serve grape growers in Western New York and beyond.

The lab will be built on 53 acres of land recently purchased by Cornell from Jim and Penny Deakin. Cornell made the purchase based on the recommendations of a task force of leading growers, processors, and researchers. Planning for new experimental research vineyards will begin this winter. Groundbreaking for the laboratory itself will occur next spring.

"This state-of-the-art facility will begin a new era in Cornell's rich history of commitment to the grape and wine industry in the Lake Erie region," said Susan A. Henry, the Ronald P. Lynch Dean of Agriculture and Life Sciences.

The facility will provide expanded field research; modernized laboratory space for research on juice and wine quality; additional office space for research and extension staff, and visiting scientists; and meeting space for grower education and training.

Rick Dunst, manager of the lab, said researchers at the current facility have made major advances in the areas of vineyard mechanization, grapevine physiology, development of economic thresholds, and effective control programs for insect and disease pests of these grapes. Researchers have increased yields, improved quality, and lowered production costs of grapes grown in the Lake Erie region, especially Concord and Niagara.

Tom Davenport, director of viticulture for the National Grape Cooperative, said, "The new facility represents the realization of an industry initiative that began in 1991 when the Lake Erie Regional Grape Research and Extension Program was formed. The new facility will be the foundation for the development of new technology that will be transferred to grape producers throughout New York state and enable them to successfully compete in today's global marketplace."

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(NEW ERA, continued)

State Senator Catharine Young led the recent effort to secure state funding for the project with major support from Assemblyman Bill Parment, who has been working to find funds to modernize the lab for more than 10 years.

"Cornell University has provided premier research and services through the Vineyard Lab for many years, not only to local farmers, but to growers across the state and the Great Lakes region," said Young, chair of the Senate Agriculture Committee.

"The key to success for the grape industry has been a combination of hard work on the part of our growers with applied research and extension coming from the grape experiment station. A new facility will give the industry a basis for productivity gains going forward. I'm pleased that we have reached this important milestone," said Parment.

Cornell researchers such as the late Nelson Shaulis, who is internationally renowned as one of the fathers of modern viticulture, and E. Frederick Taschenberg, a research entomologist whose career at Fredonia spanned five decades, dedicated their careers to grape growers and processors in Western New York. Since 1961, Cornell has conducted research and extension programs on a 30-acre vineyard and converted potting shed in the Village of Fredonia. The existing laboratory and field research acreage will be sold. Proceeds will be invested in the long-term operations of the new facility in Portland.

A. Goldweber



Ezra Cornell (center) was in Syracuse, NY, on January 11, honoring his great-great-great grandfather at a three-way celebration during the annual meeting of the NYS Agricultural Society. "It is the confluence of three great occasions - Ezra's 200th, our 175th, and the NYS Agricultural Experiment Station's 125th," said NYS Ag Society president Richard Peterson (right). In 1862, when the Morrill Act was passed, establishing a land grant university in every state in the nation, Ezra Cornell was president of the NYS Ag Society, the newly appointed chairman of the NYS Assembly's Committee on Agriculture, "and uniquely well-positioned to found an institution where agricultural research, education, and outreach in New York would finally gain a solid footing on scientific ground," said Susan A. Henry (left), the Ronald P. Lynch Dean of Agriculture and Life Sciences.

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see any below-zero conditions any time soon," added Geneva researcher Steve Luce, who conducted freezing experiments on buds Jan. 3. "Sometimes all it takes is a one deep freezing event to cause damage."

Franklin Crawford

IPM Projects Promote Sound, Sensible Pest Solutions

Programs that teach sound, simple solutions for household, lawn, and garden problems could cut back steeply on insecticide and herbicide use. Some of these include: Research to find least-toxic ways to deal with a new, invasive lawn pest; new ways of assessing landscape plans so that expensive trees stay healthy, reducing pesticide use; and after-school projects that help children learn the problem-solving approach that's at the heart of dealing with pests the right way.

The New York State Integrated Pest Management (NYS IPM) Program at Cornell University announces twelve new grants for 2007 that will help New Yorkers learn and practice sensible, least-toxic approaches to tackling pest problems, whether in their homes, yards, offices, schools, or professions.

"We've provided \$50,000 for a dozen projects that, all put together, could influence how tens of thousands of people deal with pest problems in their communities," says Jennifer Grant, the NYS IPM Program's community coordinator. "These are all creative, effective projects with a strong take-home message -- that you can be a good steward of the environment and stay on top of pest problems, too."

Thousands of pesticides are registered for homeowner use in New York. Nearly 70 percent of New Yorkers use pesticides and about a third of them do so routinely. IPM has the potential to cut pesticide use by 50 to 90 percent in many instances while still providing protection from pests.

The New York State IPM Program researches and promotes least-toxic approaches to managing pests. Find out more at <<http://www.nysipm.cornell.edu>>



CALENDAR of EVENTS JAN 19 - FEB 2, 2007

SEMINARS

HORT SCIENCE

Lori Bushway
Marcia Eames-Sheavly
Senior Extension Associates
Horticultural Sciences, Ithaca
"The Cornell Garden-Based
Learning Program"

Date: Monday, January 22, 2007
Time: 11:00 AM-12:00 PM
Place: A134 Barton Lab

FOOD SCIENCE

Dr. Bruce Pan
Post Doctoral Associate
"Differential Cerebral Cortex Transcriptomes of
Baboon Neonates
Consuming Moderate and High
Docosahexaenoic Acid Formulas"

Date: Wednesday, January 24, 2007
Time: 11:00 AM
Place: Food Science & Technology
Conference Room
Food Research Laboratory, Second
Floor, Room 251

PLANT PATH

Dr. Robert Seem
Plant Pathology, Geneva
"Can you spell Entrepreneur? Fostering New
Enterprises at the Experiment Station"

Date: Tuesday, January 23, 2007
Time: 3:30 PM (Coffee 3 PM)
Place: A134 Barton Lab

MEETINGS

CHAIRS MEETING

Date: Tuesday, January 23, 2006
Time: 8:30 AM
Place: Director's Office

GUIDELINES FOR CLASSIFIED ADS

Free to members of the Station community, ads are printed as space permits. Remember to:

Include name, campus phone number and email address.

Limit ad to 20 words or less.

Ads selling goods or commercial services on an ongoing basis or promoting employment outside Cornell cannot be accepted.

To run your ad more than once, you must resubmit it.

Station News is not responsible for errors or unprinted ads, and retains the right to edit or reject any submission.

E-mail ads to:
stationnews@nysaes.cornell.edu

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

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.

ZITI DINNER to benefit the Geneva High School Class of 2007 substance-free graduation party, Tuesday, February 6, 2007 at Uncle Joe's Pizzeria, 99 Genesee St. from 4:30 - 7:30. Eat-in or Take-out. The price is \$7.00 for ziti, meatballs, tossed salad and bread. Please see Nancy Long (X2288) for tickets. Thank you for your support.

BOTTLE & CAN DRIVE to benefit the Geneva High School Class of 2007 substance-free graduation party, Saturday, February 10, 2007 at Hydrant Hose Fire Co. from 9 AM - 1 PM. Please contact Nancy Long (X2288) to arrange for pick-up. Thank you for your support.

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: Futon, metal frame, mattress with cover, like new, \$50; coffee table, \$8; dining table, \$10; two desks, \$10/each; floor fan, \$5. Email xz65@cornell.edu, or call 315-945-4075.

FOR SALE: Air-tight plate steel stove made by CFM Corp, (Vermont Castings, Consolidated Dutchwest Co.). Brick-lined firebox. New, never used. \$200. Email dmg4@nysaes.cornell.edu

FOR SALE: CAR, Mercury Sable, 1996, 173k miles, \$1,100. Car runs excellent and has a new battery and new tires. Power windows, power locks, AC, automatic transmission. Email web5@nysaes.cornell.edu.

Chili Cook-off Celebrates 10th Anniversary

***Friday, February 2, 2007
High Noon
Lobby of Barton Lab***

Bring: Either an entry for the chili contest, or \$5 if you just want to eat (we will provide beverages)

Categories: chili with meat, chili without meat, and our special category this year will be desserts.

With special thanks to our founding chili lovers, Frank Wong and Tim Widmer, we are celebrating the 10th anniversary of Barton Lab's Chili Cook-off!!

Mark your calendars! It's unusual weather, the sun only comes out every now and then, so it must be time to dust off those slow cookers and eat some chili.

If possible, please e-mail the name of your chili to Amy Andersen (ada10) by 9 a.m. on Wednesday, January 31st. so that ID cards can be made for your entries.