

VOLUME LXXX • NO. 5
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BRIEFS

BREAST CANCER
FACT SHEET

Fruits and Vegetables and the Risk of Breast Cancer," a three-page fact sheet recently produced by Cornell's Program on Breast Cancer and Environmental Risk Factors (BCERF), is available at the office of Margaret Haining Cowles, IPM House. Call x408 or e-mail mhc8 if you are interested in obtaining one or more copies. An extensive bibliography accompanying the fact sheet is available on the BCERF web site: <http://www.cfe.cornell.edu/bcerf/>.

BCERF

NEWS FROM THE
COMPUTER CENTRE

We have had questions about *Road Runner*, Time Warner's high speed cable modem service. The service is scheduled to be available in the Finger Lakes cable area in the first quarter of 1999. *Road Runner* should give communication speeds comparable to that of computers located on the Station campus. Published prices (excluding taxes) are as follows:

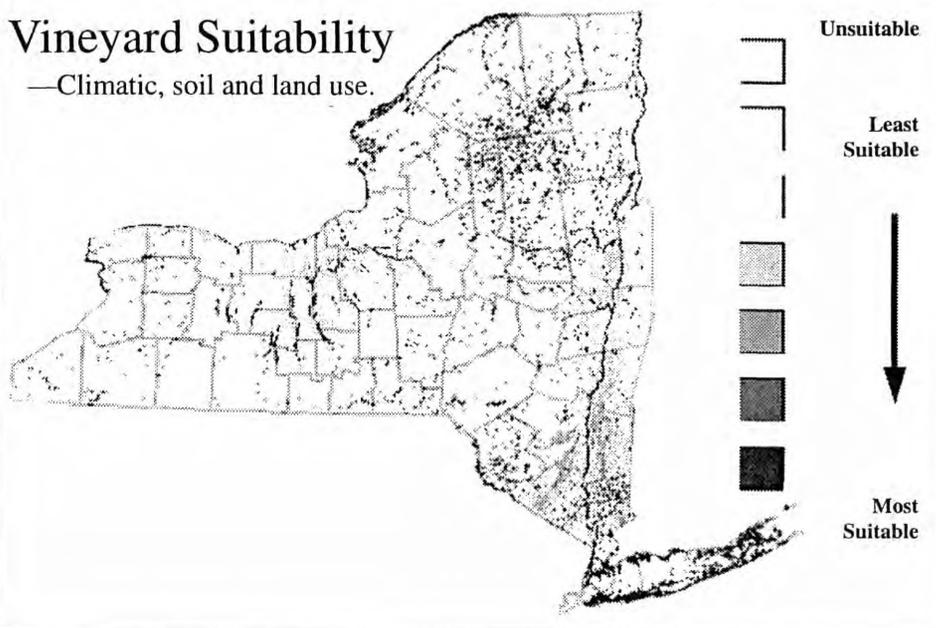
- \$99 installation (including appropriate add-in hardware),
- \$39.95 per month if you already use cable, or \$44.95 per month if you have no existing cable service,
- \$5.95 per month for each additional machine up to total of 3 machines.

For more details, the Computer Centre web page has a link to the *Road Runner* 'frequently asked questions' page. See <http://www.nysaes.cornell.edu/cc>.

GRAPE PROSPECTING BY THE MAP

Vineyard Suitability

—Climatic, soil and land use.



Final suitability for grape production in New York State: The map is based upon climatic, soil and land use suitability. (Data presented at a 1km² resolution.)

Winemakers in New York will always rely on yeast and sugar, but the Riesling, Pinot, and Chardonnay they bottle in the next century may have as much to do with satellites, digital weather sensors, and global positioning systems as they do with tradition.

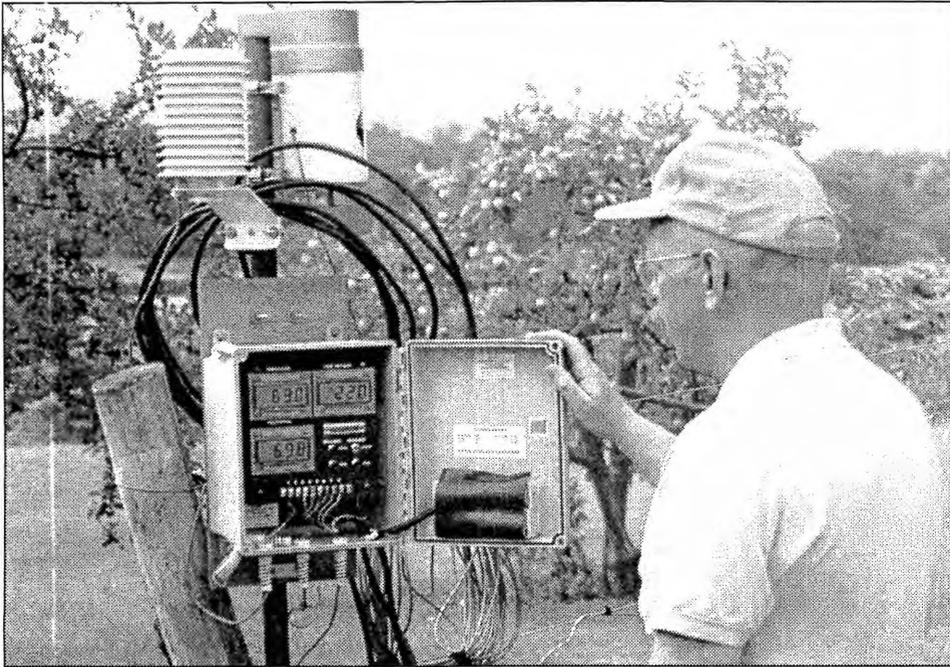
"The French have spent centuries fine-tuning the art of vineyard site selection for vinifera grapes, but New York grape growers have barely 100 years experience with the more profitable, highly sensitive varieties," said Robert Seem, a plant pathologist at Geneva who is seeking to improve the growers' odds. "Using Geographic Information System (GIS) technology, we have layered digital map and weather data collection systems and produced them over the Internet. Growers now have access to the data they need to situate vineyards optimally and expand production," he said.

Seem is a leader in the application of site-specific weather information for the estimation of plant disease risk and has been involved in a three-year project to develop a database to provide better site maps for vineyard selection in New York.

The project is funded by a \$47,000 grant from the Viticulture Consortium, a federally funded program that supports research activities in grape growing and wine making in New York and California. Cooperators and collaborators include Steve DeGloria, an international expert on the use of spatial data analysis for environmental applications in the department of Soil Crop and Atmospheric Sciences in Ithaca, Roger Magarey, a graduate student in plant pathology at Geneva, Tony Wolf, an authority on viticultural production at the Virginia Polytechnic Institute, and Tim Martinson, area specialist with the Finger Lakes Grape Program who has established a temperature monitoring network throughout the Finger Lakes.

(MAP, Continued on page 2)

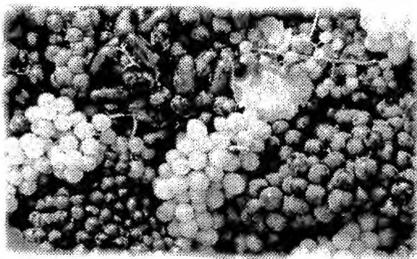
(MAPS, cont.)



Grape specialist Tim Martinson inspects a weather station. In the vineyard site selection study, a combination of climate records and temperature measurements are used to assess vineyard site suitability.

"The vineyard site selection maps for New York are based on climate, soil, land use, and elevation," said Seem. The maps are accurate to 1 km² resolution, and can be viewed on the web at <http://www.nysaes.cornell.edu/pp/faculty/seem/magarey>. In two or three years, the team expects to have some climate maps refined to the hectare level. A hectare is 2.2 acres; New York vineyards average from 50 to 100 acres in size. General information about vineyard site selection has been compiled by Professor Robert Pool and can be found at <http://www.nysaes.cornell.edu/hort/faculty/pool/NYSite-Soils/SiteSelection.html>.

Vinifera site selection has become more of an issue for grape growers and wine makers because table wine consumption is expanding in the premium and super-premium categories. Also, in the last 23 years, the number of wineries in New York has increased from 10 to over 125. Winemakers have always used American grape varieties like Concord and Niagara, which are native to New York, to make popularly priced dessert and sparkling wines. The native varieties combine disease, insect, cold, and acid soil tolerance,



but are no longer in as great demand as the pricier vinifera, which are harder to grow and more sensitive to environmental conditions.

"If a grower wants to situate a new planting of Riesling grapes in New York, for instance, he will have a much better chance if he uses our mapping system," said Seem. Bankers who provide the considerable investment required for expansion also tend to be more comfortable with scientific maps than hearsay.

Good site information is not only required for vinifera plantings. According to Seem, "Every grower has superior and more restrictive areas on his farm. Growers need to understand how well their different fields rank in terms of climatic or soil limitations."

The advent of GIS technology has allowed researchers to handle site selection factors at a greater resolution and flexibility than ever before. GIS databases are spatial databases that enable the storage and rapid analysis of vast quantities of geographic information. Researchers expanded and capitalized on the present information, and combined the system with other computer programs that predict and interpolate weather data at the lo-

cal level to provide growers with more and better information about vineyard siting than has been possible in the past.

In the current project, Magarey and Seem obtained digital maps of climate, soil and land use from ZedX Inc. (a commercial weather information company) that were derived from interpolating data from North American weather stations and adjusted for the influence of elevation. The maps with the greatest impact for New York grape growers are those showing extreme cold temperatures and the length of the frost-free season.

Severe injury to vinifera grapevines is likely to occur when temperatures are less than -5 to -10° F. Climatic maps show the entire state of New York experiences temperatures below these thresholds at least once every 10 years. Grape cultivation also requires 160 frost-free days, a variable that is strongly influenced by proximity to large bodies of water such as the Great Lakes, the Finger Lakes, and the Hudson River. Soils also need to be deep and well drained, with moderate to high pH. The most suitable soils in New York are those derived from limestone bedrock, which run in a crescent shape across the state.

"By digitally overlaying the climate and soil maps, we were able to show all areas that have both suitable climates and soil," said Magarey. In the final step, the maps were overlain with a land-use map to exclude urban areas and water bodies.

Growers can log onto the web site to access these maps or construct maps based on their own criteria. "The maps are of primary use to growers, consultants, and extension educators," said Seem.

Currently, the researchers are working on an air flow model map that will chart critical selection criteria such as frost pockets.

New York State is second in the nation in total grape acreage and wine production, and first in the production of grape juice. There are 990 vineyards in New York covering 31,400 acres of land. Of the 125 wineries, 106 have been established since the passage of the Farm Winery Act in 1976. Researchers at the Experiment Station have been critically involved in the expansion of the grape and wine industry in New York since the station's founding.

L. McCandless

NURSERYMAN AND IPM CONSULTANT WIN '99 IPM AWARDS

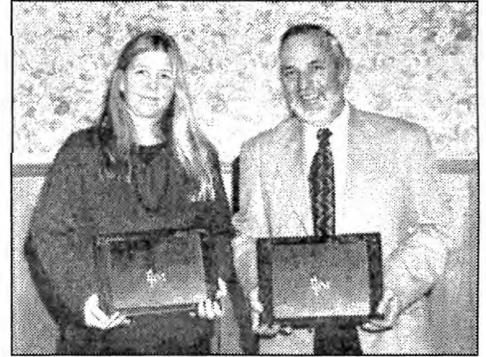
Long Islanders Charlie Scheer, production manager at Half Hollow Nursery, and Jennifer Jens, owner of IPM Consulting, were named Excellence in IPM Award winners at the 18th annual Long Island Agricultural Forum on January 14. Scott Clark, Suffolk County Extension nursery specialist, presented the awards at the Forum dinner before an appreciative group of 150 who had braved the snow and ice to attend. The weather prevented Ornamentals IPM Coordinator Gerard ("Rod") Ferrentino, who was scheduled to present the awards, from getting there.

The New York State IPM Program has given awards to six or eight individuals and organizations each year since 1996 as a means of recognizing outstanding contributions to the statewide IPM effort. Six awards are being conferred in 1999, two at each of three grower meetings.

On presenting an award plaque and gift to Jens, Clark noted that "Jennifer has won the respect of the growers because of her knowledge of IPM and her sensible approach to pest management. With her assistance several growers on Long Island have

significantly reduced both their pest management costs and their pesticide use." Jens's involvement with IPM dates back to 1993. She worked for Extension as a research associate and then as the county scout and was instrumental in helping to fine-tune monitoring programs for a variety of field- and container-grown nursery crops. Jens went into business for herself in 1996 as a private consultant to nursery and greenhouse growers. One of Jens's satisfied customers happens to be Half Hollow Nursery.

Charlie Scheer received his award and gift amid praise from Clark for his farsightedness and a "unique partnership that has helped Extension make great strides in developing a nursery IPM program that reaches beyond Long Island." Scheer manages Half Hollow Nursery, a 571-acre business that produces field- and container-grown ornamentals for the landscape market. He frequently makes Half Hollow available to Cooperative Extension as a demonstration site and contributes plants and potting media to IPM-related projects at the Long Island Horticultural Research Laboratory. Scheer has long been interested in



Jennifer Jens and Charlie Scheer, 1999 recipients of Excellence in IPM Awards for their work in ornamentals. Photo by Susan Cheshire

finding ways to reduce pesticide use while maintaining plant quality. "Much of what Extension educators and nursery growers in Suffolk County have learned about monitoring and other IPM strategies," says Clark, "is due to Scheer's support and encouragement over the past 11 years." Scheer began working at Half Hollow in 1972. He has also taught agriculture and has worked as a nursery specialist for the Suffolk County Extension office. *M. H. Cowles*

CONSTRUCTION UPDATE



The Entomology department has initiated discussions with Ralph D'Amato and Dave Lasher on questions concerning the move. This is a summary of where we are right now. Please continue to ask questions and provide input.

1. Everyone, but particularly the 6th and 5th floors, since they are first, should begin purging things to be thrown out—old files from file cabinets, old data, junk, etc. Rick Kalbfleisch and Nestor Ortiz will be our main contacts on hauling refuse to the trash and to the warehouse. They will provide large bags for recyclables and trash and will pick it up. I suggest that we designate one

day each week for pickup instead of piecemeal all week. I suggest that we pick Thursday next week as our first date for a pickup of trash. If you need help from Rick, phone him at #303.

Rick and Nestor will also be in charge of picking up boxes packaged for the warehouse or the surge space. On boxes for the warehouse, mark name, room number, fragile (if appropriate), and anything else necessary. Ralph will have the boxes, packing materials, etc. in his office (Rm. 7, across from the loading dock). You can stop by and get what you want (when the boxes finally arrive) and you can phone him at x310 if there are questions.

2. CHEMICALS: The procedure on chemicals is not quite clear, yet. However, we are planning to store chemicals not needed in the surge space in the chemical storage solvent room (off the loading dock) and also in the new spray lab facility (evidently there are several rooms with big turn-

tables in them that are not being used).

3. Media room: There are plans to have an autoclave set up in the surge space that could be used while the 5th floor is out of action. We are discussing with Plant Path the possibility of using theirs, as well, but it is possible that the basement room holding their autoclave will be out of action this summer, too. There are plans on taking sections of the basement at a time this summer, but we still need to get more details on what the exact schedule will be. We still do not know how much has to be moved out of the basement rooms, since the asbestos removal is not major down there. A section might be out of action for 3-4 weeks.

4. Radioactivity and darkroom: We plan to have a radioactive room and darkroom in the surge space.

5. Biotron units. The biotron units in Rm. 518 are to be moved to the surge space as much as possible and so they can be used during this project. *(continued on page 4)*

CALENDAR of EVENTS

FEBRUARY 5-12 1999

MEETINGS

Tuesday, February 9, 10:30 am
348 Morrison Hall
CALS Department Chairs' meeting

EVENTS

February 9-11, 1999
Holiday Inn, Syracuse
NYS Vegetable Conference

March 11-14, 1999
The Dome Center, Rochester
GardenScape '99

SEMINARS

ENTOMOLOGY

Date: Tuesday, February 9
Time: 10:30 am
Place: 310 Barton Laboratory
Speaker: Dr. Elson Shields
Department of Entomology
Cornell University, Ithaca
Title: Radio-Controlled Miniature Aircraft: Serious Scientific Equipment for Sampling Atmospheric Biota, or Just Playing on University Time

*There will be a period of social interaction with the speaker at 10:00 am.
Coffee and cookies will be available.*

PLANT PATHOLOGY

Date: Tuesday, February 9
Time: 3:00 pm
Place: Room A133, Barton Laboratory
Speaker: Dennis Gonsalves
Department of Plant Pathology
Cornell University, Geneva
Title: Combining Scientific and Pragmatic Approaches for Using Transgenic Plants to Control Virus Diseases

DEADLINES

Monday, February 15:
• Apple Research and Development Program proposals due in Director's Office.

UPDATE (cont.)

6. Dave Lasher said that the Stone Barn has 3 controlled atmosphere rooms that are empty and he would like to see them used since he has to heat them anyway.

Projected move for 6th floor: April 12-19 move out; Aug. 20 move back.

Correction: The laboratory hoods will NOT be removed, as reported in *News* last week, although everything in them must be moved.

Wendell Roelofs

LTC

Date: Monday, February 8
Time: 10:30-noon
Class: MAC Basics
This course will cover types of computer interface; startup; desktop; working with windows: parts of a window; file objects; Macintosh standards in applications, system folder, basic networking, shutdown, where to go for help. There is time allotted for hands-on learning. Instructor: John Barnard.

Date: Wednesday, February 10
Time: 10:30-noon
Class: MAC Intermediate
This course will cover installers; more networks; sharing files, viruses, SAM, fixing disks (Disk Doctor, Speed Disk); memory issue; keyboard commands. Time is allotted for hands-on learning. Instructor: John Barnard.

CLASSIFIED

MOVING/NEED TO SELL: Whirlpool washer, beige/black, 3-speed, super capacity, perfect working condition: \$100. Whirlpool dryer, gas, 5-cycle, heavy duty, white, in perfect working condition: \$100. Call Kathy, x371 or 789-7296.

WANTED: Piano students, ages 7-97. Openings Tues. & Thurs. afternoons, \$15 per 1/2-hour lesson. Margaret Haining Cowles, mh8, x408, or 781-2421 after 2:30.

FOR RENT: Very nice 1 bedroom apt. in Geneva's historic district of South Main Street. The rent is \$390 plus utilities. Phone (716) 396-1307. This apt is close to downtown and Hobart and Wm. Smith Colleges.

FOR SALE: Macintosh Powerbook 5300/c. 100 Mhz with 24 Mb RAM, 750 Mb HD, Active Matrix screen, Global Village PlatinumPro Modem/Fax, extra power supply. New upgraded logic board. Works perfectly—no problems. \$820 or acceptable BO. Call 781-1345, leave message.

FOR RENT: Clean, quiet 1 bedroom apartment with off-street parking. Great neighborhood about one mile from Station. Convenient location. \$385/month includes all utilities. Leave message at 789-2471.

SURPLUS SALE

IPM has the following items for sale:
1. MacIntosh LCII Computer: \$75
2. Apple Imagewriter Printer: \$100
3. Apple Laserwriter IISC Printer: \$200
All items worked as of last use. Please contact Cheryl TenEyck at x379 for more information.

FST surplus available for bid: Christian Becker Chainomatic analytical balance, 1948. Best offer to Roger Cullen by February 15.



Tickets are now available for GardenScape '99. GardenScape '99 will be held at The Dome Center on East Henrietta Road in Rochester March 11-14, 9:00 am-9:00 pm, Thursday-Saturday; and 9:00 am-5:00 pm on Sunday.

There will be more than 50 landscaped gardens and displays, including special focus on children and families, with an interactive children's garden, The Gardener's Marketplace, and numerous demonstrations and speakers. Seminars will be held daily, every hour, beginning at 11:00 (10:30 on Sunday). Speakers are:

- 3/11 - Scott Kuntz, *Antique Gardens, American Home Landscapes*
- 3/12 - Jo Ann Gardner, *Herbs in Bloom for Gardeners Who Love Flowers*
- 3/13 - Allen Rokach & Anne Millman, *Focus on Flowers, Part 1 & 2*
- 3/14 - Carle Otteson, *Out of the Wild and Into the Garden*

Ticket price at the door is \$8.00 for adults, \$4.00 for children 6-12, and free for children 5 and under. Colleen VanAllan (x318 cmh6) for reduced price (\$1.00 savings) tickets.