

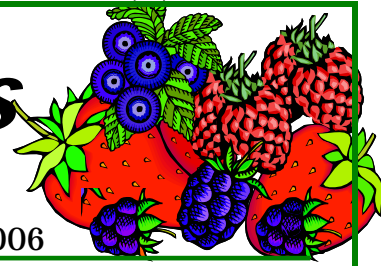


New York Berry News

CORNELL UNIVERSITY

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What's Inside

1. Currant Events
 - a. 2007 Empire State Fruit and Vegetable Expo Berry Session Program Announced
 - b. Governor Announces Federal Aid for Western NY Snow Storm Victims
 - c. Labor Compliance Audit Seminars Scheduled
 - d. Do-it Yourself Speed Cooler Helps Extend Shelf Life of Harvested Fruit
 - e. NYFVI Names New Executive Director
 - f. Vegetable/Strawberry IPM Educator Exchange: Request for Applications
 - g. Raspberry High Tunnel Open House Highlights
- 2.. Berry School Features Farm Educators and Cornell Specialists Janet Aldrich
3. Mulching Strawberries Prematurely Can Lessen Survival Odds- Kevin Iungerman
4. NYFVI-Funded High Tunnel Project Offers Growers High Hope for Profitability - Kara Dunn
5. Midseason Extension: Strawberry Market Share Back from CA?- Kevin Iungerman
6. Weather Reports (Season Finale!)

CURRENT EVENTS

November 2: **NYPIRG Wind Power Education Project**, An objective information session on wind power; dispelling myths and discussing the impacts of wind power for New York State. NYPIRG, SUNY New Paltz Campus Lecture Center Rm.100, 7:30pm no cost Contact: Amanda Sisenstein, 845-257-3085 or newpaltz@nypirg.org

November 8-10: **Great Lakes Fruit Workers Meeting**, Ithaca, NY. For more information or to register, <http://www.hrt.msu.edu/glfw/>

November 9-11: **Southeast Strawberry Expo**, Sea Trail Conference Center, Sunset Beach, NC. For more information, call 919-542-3687, email ncstrawberry@mindspring.com, or visit www.ncstrawberry.com.

November 14-15: **Cornell Strategic Marketing Conference**, FDR Presidential Library and Home, Hyde Park, NY. For more information, contact: Bob Weybright, 845-677-8223, ext 122, e-mail: rw74@cornell.edu or Wen-fei Uva, at 607-255-3688, e-mail: w132@cornell.edu.

November 16-17: **NYFB Labor Compliance Audit Seminars**. See news brief below for details and registration information.

December 5-7: **Great Lakes Fruit, Vegetable and Farm Market Expo**, DeVos Place, Grand Rapids, Michigan. For more information: <http://www.glexpo.com>.

January 16-17, 2007. **NABGA National Bramble Conference**, Columbus, Ohio, in association with the Ohio Fruit & Vegetable Congress. For more information: <http://www.raspberrylackberry.com>.

January 18-20: **NYS Farmers' Direct Marketing Conference**, "The Food Less Traveled: How Local Food Contributes to Healthy People and Healthy Communities", Owego Treadway Inn, Owego, NY. For more information: <http://www.nysfdma.com/>

January 27-28: **NOFA-NY 25th Annual Conference**, "Building the Farm Economy Around Local Foods". For more information: <http://nofany.org/index.html>.

February 13-15: **Empire State Fruit and Vegetable Expo**, Onondaga Convention Center, Syracuse, NY. For more information: <http://www.nysaes.cornell.edu/hort/expo/>

February 26-28: **The Hudson Valley Commercial Fruit Growers' School**, Holiday Inn in Kingston, Ulster County. Berry Session Feb. 26th with emphasis on raspberries. For more information: Steven McKay, sam44@cornell.edu.

March 1: **NENY Fruit School** in Lake George. Contact: Kevin Iungerman, kai3@cornell.edu.

What can we say! Don't put away those umbrellas yet and break out the long johns !October has been another record-breaking month in terms of weather, with rain, rain and more rain, and an early snow fall which completely shut down several counties in the western part of the state.

In the line up this month more educational opportunities featured both the calendar and news briefs, highlights of the blueberry work force training program in Delaware County and the Cornell Raspberry High Tunnel Open House, new and noteworthy items of interest from the NY Farm Viability Institute, the proposed program for the 2007 Empire Expo Berry sessions brought to your courtesy of the New York Berry Growers, another in a series of articles by Kevin Iungerman on strawberry winter protection strategies, plans for a do-it-yourself speed cooler for berries and more!



OnCenter Convention Center Syracuse, NY February 13-15, 2007

Sponsored by Cornell Cooperative Extension, New York State Vegetable Growers Association, Inc., Empire State Potato Growers, New York State Berry Growers, the New York State Horticultural Society, and Cornell University

2007 EMPIRE STATE FRUIT AND VEGETABLE EXPO BERRY SESSION PROGRAM ANNOUNCED

The New York Berry Growers Association is proud to announce the 2007 berry educational program for the 2007 Empire State Fruit and Vegetable Expo, scheduled for February 13-15, 2007. The berry session will be held on Thursday, February 15, from 9:00 AM to 4:00 PM, so mark your calendars now and plan to attend. DEC Pesticide license credits will be available for the middle session (12:40-2:30 PM).

This year's Expo will be held again at the OnCenter Convention Center in Syracuse, NY. Trade show hours will be Wednesday from 8:00 AM and Thursday from 8:00 AM to 3:30 PM. For more information go to:
<http://www.nysaes.cornell.edu/hort/expo/>.

THURSDAY MORNING, FEBRUARY 15

NYS BERRY GROWERS ASSOCIATION ANNUAL EDUCATIONAL MEETING BALLROOM EAST

Sponsored in part by: Dow AgroSciences, Nourse Farms, Valent USA

9:00 Welcome and announcements - *Craig Michaloski*

9:05 Berry pricing strategies and NYSBGA survey results – **Marvin Pritts, Cornell**

9:30 Pride of New York program benefits for berry growers – *Sue Santamarina, Dept of Ag & Markets*

9:55 What's new from industry

10:05 Impact of climate change on strawberries in the northeast – *Rebecca Harbut, Cornell*

10:30 Straw options for New York – *William Cox, Cornell*

10:45 New York State Berry Growers Association annual business meeting – *Craig Michaloski, Chair*

11:00 Lunch and visit Trade Show

THURSDAY AFTERNOON, FEBRUARY 15

**NYS BERRY GROWERS ASSOCIATION ANNUAL EDUCATIONAL MEETING
BALLROOM EAST**

Sponsored in part by: Dow AgroSciences, Nourse Farms, Valent USA

12:40 Announcements and DEC credit sign-up – *Jim Altemus, Molly Shaw*

12:50 Reducing weeds in berry crops - *Leslie Huffman, Ontario Ministry of Agriculture*

1:15 Fungicides for berry fruit: new and current options - *Kerik Cox, NYSAES*

1:35 What's new from Industry

1:45 New herbicides for planting year weed control – *Chris Benedict, Cornell*

2:10 Overview of the biology and management of root weevils – *Greg English-Loeb, NYSAES*

2:30 Issue DEC credits, break for trade show

3:00 Growing and marketing berries at Brown's Berry Patch – *Eric Brown, Brown's Berry patch*

3:40 IR-4 Program update for berry crops – *Edith Lurvey, NYSAES*

4:00 Adjourn

GOVERNOR ANNOUNCES FEDERAL DISASTER AID FOR WESTERN NEW YORK LAKE-EFFECT STORM VICTIMS

Homeowners, Renters, and Small Businesses in Erie, Genesee, Niagara and Orleans Counties Eligible for Individual Assistance; Communities to Receive Public Assistance Funding

October 24, 2006. Governor George E. Pataki tonight announced that President Bush has approved New York State's request and declared the counties of Erie, Genesee, Niagara and Orleans eligible for federal disaster assistance as a result of damages incurred during the October 12-13 lake-effect storm.

"This much-needed federal assistance is welcomed news for the residents, small businesses and communities in the four counties who have suffered much hardship as a result of the freak October lake-effect storm," Governor Pataki said. "I want to thank President Bush and FEMA Director R. David Paulison for answering New York State's call for help and in particular the efforts of Congressman Tom Reynolds, who spearheaded our delegations drive to get this federal aid.

"Let me assure Western New Yorkers in the impacted counties that New York State will be working with them every step of the way on the road to recovery," the Governor said.

As a result of the major federal disaster declaration, homeowners, renters and small businesses are eligible for federal aid under the Federal Emergency Management Agency's (FEMA) Individual Assistance Program. Additionally, communities and eligible not-for-profits qualify for federal aid under FEMA's Public Assistance Program.

The Individual Assistance Program provides assistance to homeowners, renters and small businesses through the Individuals and Households program. The disaster aid includes grants for temporary housing and rental assistance, home repairs, and other disaster-related needs. Low-interest loans from the U.S. Small Business Administration are available for those who qualify.

Individuals can register for federal disaster aid by calling FEMA's toll-free registration number at 1-800-621-FEMA (3362). Those who are hearing or speech impaired may call TTD at 1-800-462-7585. Phone lines are open seven days a week from 8 a.m. to 8 p.m. Storm victims may also register for disaster assistance on-line at www.fema.gov.

The Public Assistance Program provides 75 percent federal reimbursement for the costs of debris removal, protective measures taken in response to the storm and for repairs to the public infrastructure.

Governor Pataki announced on October 16 that New York State will assume the local governments' share of the costs under the FEMA public assistance emergency declaration. Typically, the FEMA program reimburses localities for 75 percent of the costs for debris removal including equipment, contracts and personnel overtime related to emergency services, and for repairs to public infrastructure with the State and local community splitting the remaining 25 percent. The Governor said on October 16 that the State will pay the community 12.5 percent locality share, providing budgetary relief for municipalities in the four impacted counties.

The federal declaration also provides the statewide implementation of FEMA's hazard mitigation program, a competitive program designed to reduce recurring disaster losses by implementing projects designed to lessen the impact of identified hazards.

On October 13, the Governor declared a State Disaster Emergency for the counties of Erie, Genesee, Niagara and Orleans and contiguous areas as the lake-effect snows closed the State and local network of roads and brought down snow-laden trees and power lines, cutting electric power to more than 390,000 customers. Later that day, the Governor asked the president to declare a federal emergency for the four counties to provide federal aid for debris removal and the costs for emergency protective measures taken.

The president declared a federal emergency in the four counties on October 15 and Governor Pataki immediately requested a major federal disaster declaration for those counties in the Western New York Region.

The Governor announced Sunday that an additional 303 highway maintenance workers with heavy equipment from the New York State Department of Transportation (DOT) have been deployed to aid in the ongoing recovery operations in Western New York. They joined the more than 800 DOT, National Guard, State Police, and other State agencies personnel already on the ground.

In the aftermath of the October 12-13 lake-effect snow storm, State personnel have teamed with local and county highway departments and other local agencies to open roads and continue to remove fallen trees and limbs that brought power lines down. The Governor immediately launched a massive response, including activating up to 300 National Guard personnel, and directed State agencies to do everything possible to assist local governments throughout the region.

The Governor has appointed John R. Gibb, Director of the State Emergency Management Office (SEMO) as State Coordinating Officer for this disaster. In that role, he will direct State agencies' recovery efforts and coordinate disaster relief programs with federal agencies.

LABOR COMPLIANCE AUDIT SEMINARS SCHEDULED

New York Farm Bureau, with the assistance of Bond, Schoeneck, and King, PLLC, are conducting a series of Labor Compliance Audit seminars at different locations throughout New York State on November 16 and 17, 2006. These seminars are designed to assist agricultural employers to understand the myriad of state and federal employment laws, thus resulting in their being able to consistently comply with those laws. Information will be provided to participants relative to:

1. Hiring and termination
2. Employment of minors
3. New York Labor Law
4. Fair Labor Standards Act
5. Farmworker Housing Standards
6. Employee Benefits

Each participant will leave the seminar with not only the training itself, but also sample checklists, self audit materials and a copy of the NYFB publication "New York Farm Bureau's Guide to Labor and Employment Laws."

There will also be a question and answer period. Bring your specific questions to share with others in attendance.

The program will be conducted by Patrick Mefi of the firm of Bond, Schoeneck, and King, PLLC. Patrick Mefi, Esq. graduated from Nazareth College of Rochester in 1990 and Loyola University of Chicago in 1995. He practiced labor and employment law in Illinois before joining Bond, Schoeneck, and King, where he currently practices in their Syracuse office. While in Illinois, MR. Mefi represented management only in labor and employment matters.

Mr. Mefi also has additional experience in Agribusiness and Employment Law Litigation and is a member of the New York State and Illinois State Bar.

Pre-registration is required- no registrations will be accepted at the door. Seminar fee for NYFB members is \$250; fee for non-members is \$275. For further information or questions contact the NYFB Legal Affairs Dept. at 1-800-342-4143.

PROGRAM SCHEDULE

November 16, 2006

Location: Holiday Inn
8250 Park Rd
Batavia, NY 14020

Time: 8:30 AM – 12:30 PM

November 17, 2006

Location: Offices of Bond, Schoeneck, and King, PLLC
One Lincoln Center
Syracuse, NY 13601

Time: 8:00 AM – 12:00 PM

The November 17th session will also be videoconferenced to the following locations:

Jefferson County CCE, 203 North Hamilton St, Watertown, NY 13601

Saratoga County CCE, 50 West High St, Ballston Spa, NY 12020

Suffolk County CCE, 246 Griffing Avenue, Riverhead, NY 11901

Farm Bureau would like to thank their strategic partner, Farm Family Insurance Companies, for their assistance in underwriting the cost of these seminars.

DO-IT-YOURSELF SPEED COOLER HELPS EXTEND SHELF LIFE OF HARVESTED FRUIT

Cathy Heidenreich, Small Fruit Extension Support Specialist, Department of Horticulture, Cornell's College of Agriculture and Life Sciences, Ithaca, NY 14853

Speed cooling of small fruits can dramatically extend their shelf life. A general rule of thumb is that for every hour of delay in cooling after harvest, shelf life is reduced by one day. This delay can have a significant economic impact on a grower's ability to market fruit in retail and wholesale outlets. Large commercial berry operations routinely use large pre-coolers to speed cool warm fruit coming from the field.

Typical New York berry growers, however, operate on a slightly smaller scale. While most growers often have coolers for post harvest fruit storage, not many have speed cooling technology available to them.

Fortunately, William Wilcke, Extension Agricultural Engineer, and Herbert Stiles, Extension Horticulturalist, both from Virginia State University have designed a do-it-yourself forced-air produce cooler which can help get the job done - fast!

Their simple device, assembled from materials available from your local home improvement or hardware store, can be readily constructed using common household tools. It is intended to be used in your existing produce cooler to speed cool non-wrapped small fruit and/or produce packed in vented cartons. The cooler is custom-built to the dimensions of your filled produce cartons and is designed to cool one to three columns of cartons (approx. 15 cartons per column, depending on carton depth) at a time.

A print-friendly PDF version of the plans for this do-it-your selfer is available free of charge from the Virginia Cooperative Extension Service at:

<http://www.ext.vt.edu/pubs/fruit/442-060/442-060.pdf>.

(Or contact them directly and ask for their Small Fruits Publication #442-060, The Forced-Air Produce Cooler, by William Wilcke and Herbert Stiles)

Once you have finished your custom-built forced air cooler, place it in a room maintained at proper temperature and relative humidity for the type of produce you need to speed cool (32°F and 90% relative humidity is recommended for small fruits). Load the fruit into the cooler following the instructions provided.

Operate the unit until the produce is within a few degrees of the cold room temperature. This may take 2-6 hours depending on the fan size of your unit and the initial temperature differences between the cold room and the harvested fruit. (Caution- Do not operate more than 6 hours as this may dry out the fruit.)

Once the fruit is speed cooled, move it out of your speed cooler into the main cold room area and re-load the unit with another batch of warm produce. If you need to add more warm fruit to the unit while it is already in operation, slide the partially cooled columns to the rear and set the warmer fruit closest to the forced air cooler to avoid reheating partially cooled fruit.

VEGETABLE/STRAWBERRY IPM EDUCATOR EXCHANGE: REQUEST FOR APPLICATIONS

Would you like to learn more about integrated pest management for vegetables or strawberries, but can't afford to travel to a meeting? Do you have an interest in sharing what you know with others? The Northeast Vegetable IPM Working Group, funded by the Northeastern IPM Center, is launching an Educator Exchange Program that will pay up to \$800 for qualified expenses to help agricultural professionals in the Northeast learn about and share integrated pest management practices in vegetables and strawberries

The program is open to vegetable and/or strawberry specialists, Cooperative Extension educators or county agents, growers, crop consultants, government agency staff, agricultural professionals in nonprofit organizations, or anyone who will be in contact with many vegetable or strawberry growers. All applicants must reside in a northeastern state

For complete information about the application process, download the Request for Applications at http://northeastipm.org/work_vegetable.cfm.

NEW YORK FARM VIABILITY INSTITUTE NAMES NEW EXECUTIVE DIRECTOR

Thomas N. Sleight Selected to Head Organization Promoting Agricultural Enterprise Success and Profitability

Dan Conable, Special Projects Coordinator, New York State Farm Viability Institute, Inc.

On October 16, 2006, New York Farm Viability Institute, Inc. (NYFVI) Board Chairman John Lincoln announced the appointment of Thomas N. Sleight as NYFVI Executive Director. In making the announcement, Mr. Lincoln said, The Board is extremely pleased to have someone of Tom's caliber and experience to lead our young organization. His background in agricultural industry development and promotion, along with his skills as a manager, will serve us in good stead.

Mr. Sleight comes to New York from Virginia, where he has been Director of the Division of Marketing for the Virginia Department of Agriculture and Consumer Services since 1999. Prior to joining that Department, he worked for the U.S. Grains Council in Washington, D.C. for 16 years, most recently as Executive Director for the Council. Tom worked in the Councils international program, directing its activities in Asia, Europe and the Middle East, as well as serving as the Councils representative in Vienna, Austria, with responsibility for Eastern Europe and the Soviet Union.

Mr. Sleight was born and raised on a Dutchess County, NY, dairy farm that has been in the family for ten generations. He graduated from Cornell University with dual specialization in agricultural economics and agronomy.

Mr. Sleight said, "I have worked with a wide variety of agricultural enterprises across the country and around the world. I am looking forward to returning home to New York to share these experiences and contribute to the mission of the New York Farm Viability Institute."

Mr. Lincoln announced that Mr. Sleight will take the NYFVI reins from Dr. R. David Smith, who has served as Executive Director of the NYFVI since its foundation in 2004, on November 1

We are deeply grateful to Dave for getting the Institute up and running, and to Dean Susan Henry at the College of Agriculture and Life Sciences for Cornell for permitting Dave to take leave from his Cornell responsibilities to work with us for the past two years. We know that Tom will build on the close collaboration that the Institute has built with the states

farm organizations, Cornell Cooperative Extension, the College of Agriculture and Life Sciences at Cornell, and the SUNY Colleges of Technology, as we work together to support all segments of the farm sector in our state, Lincoln said.

The NYFVI is a farmer-led, independent non-profit organization, with offices in Syracuse, New York. The Institute is currently overseeing a portfolio of \$8.3 million in applied research and extension projects aimed at helping agricultural producers in the state capitalize on new opportunities and make their businesses more successful. Information about the Institute is available on its web site <http://www.nyfarmviability.org>.

RASPBERRY HIGH TUNNEL OPEN HOUSE HIGHLIGHTS

Cathy Heidenreich, Small Fruit Extension Support Specialist, Department of Horticulture, Cornell University's College of Agriculture and Life Sciences, Ithaca, NY 14853.

Despite driving rain and blustery high winds, approximately 40 people braved the wet and cold to attend the 2nd annual Cornell Raspberry High Tunnel Open House. Those attending came from near and far; some traveled from as close by as main campus for the event, others traveled from as far away as Quebec City, Canada to attend. Some were commercial growers looking for ways to extend their raspberry season, others were high tunnel owners/operators looking to share their own experiences or get discuss concerns with researchers. Also attending were CCE educators, homeowners, students, and some local newspaper reporters.



Tours of the tunnel were conducted by Dr. Marvin Pritts, the project leader, and Mary Jo Kelly and Jenny Conrad, who are assisting him with the project.

Some interesting raspberry high tunnel facts:

- The plastic goes on the tunnel in early September. The process takes about 2 hours.
- The tunnel, which is 30 x 90 ft, contains 4 rows of raspberries, planted on 7 foot centers.
- Bumble bees quickly adapt to life as high tunnel dwellers, often waiting to enter or exit each day when the doors were opened or the tunnel sides raised for ventilation. No additional pollinators were needed.
- Raspberries are harvested from the tunnel for approximately a 10 week period between early September and mid-November.
- Rows are picked on alternate days; two people harvest 8 hours a day, 3-4 days a week.
- Approximately 500 pints of fresh market quality fruit are harvested per week; the raspberries are sold from the Cornell Orchard store at \$5.00 per pint.
- The shelf life of tunnel produced raspberries is more than triple that of conventionally produced raspberries.
- Row covers are used to cover raspberries inside the tunnel on evenings when temperatures are predicted to drop into the mid to upper 20's to protect plants from cold injury.
- The plastic is removed again in early December after the cropping season is over.

One of the suggestions coming from the meeting was the development of a raspberry high tunnel production guide similar to the greenhouse raspberry production guide already available on line at:

<http://www.hort.cornell.edu/extension/commercial/fruit/Berries/bramblehtml/ghrasp.html>

Watch for the release of this new on-line publication in the months to come!

BLUEBERRY SCHOOL FEATURES FARMER EDUCATORS & CORNELL SPECIALISTS

Janet L. Aldrich, Senior Extension Educator, Cornell Cooperative Extension of Delaware County, Hamden, NY

The 2006 Agricultural Workforce Training in Delaware County targeted new and existing blueberry growers. Held September 19-22, participants learned production methods, pest identification and scouting, nuisance wildlife control options, and integrated pest management from Cornell specialists Marvin Pritts, Kerik Cox, Paul Curtis, and Lisa Fields. Northeast SARE Farmer Educator James J. Binsberger of Homestead Orchards in Perkasio, PA, covered a wide range of agri-tourism activities that made his remote farm into a model as a “destination farm”. Terri Perfetti of Cherry Knoll farm in Marathon, NY discussed blueberry production, U-Pick management, labor issues, pricing, and his two “value added” products, blueberry wines and vinegar.

Step I: The Blueberry

Dr. Marvin Pritts, NYS Small Fruit Specialist, began with the taxonomy of blueberries. Members of the Ericaceae family (which also includes rhododendrons, heath, cranberries, Indian pipe, and huckleberries), they require acid soils – a pH of 4.5 is ideal, but they tolerate 3.8-5.5. Soils in excess of this range might sustain the plants but growth and production would not be optimum. Dr. Pritts notes that it would not be economically advisable to try to lower a high pH in a commercial planting. Another key feature of this family is the “endomycorrhizal” fungi that inhabit the roots of these plants and aid in their uptake of water and nutrients while using some carbohydrates in the plant. This mutually beneficial relationship helps these plants exist in areas that are low in nutrients, such as bogs. Pritts also notes that these fungi may not be found in plants where cultivation and inorganic fertilizers are used extensively.

The highbush blueberry, *Vaccinium corymbosum*, is the major cultivated species of blueberry in North America. According to the *Highbush Blueberry Production Guide*, it exists in native stands from southern Nova Scotia, west to southern Wisconsin and south along the Atlantic Coast to eastern Texas. As a native plant, Pritts notes, there are no major imported insect or disease pests of blueberry. Also, it is not easily pollinated by the honeybee that is native to Europe and Asia. So, native wild bees are the most effective pollinators of highbush blueberries, especially bumblebees. Pritts showed how the blueberry flower is too long for the tongue of the honeybee and how native bumble bees actually clutch the flowers face-on, shake it, and reach the nectar with their long tongues. Some growers buy in bumble bees for their fields to assure good pollination.

Consumer Trends

To begin with, consumers love blueberries. Their long shelf life, low calories, low sodium, no cholesterol and ability to lower blood cholesterol levels due to pectin in the fiber of the berry, have long been recognized by health conscious consumers. They are also found to prevent bacteria from getting a hold in the bladder, and, like its cousin the cranberry, helps to prevent urinary tract infections. Terry Perfetti of Cherry Knoll Farm uses the health benefits of blueberries as a marketing tool on his website: <http://www.geocities.com/cherryknollblueberries/home.html>. Blueberry growers can easily let their market know that blueberries are good for you – *real good*. Today’s consumers, both young and old, respond to that strongly.

How Blueberries Grow: Key to Cultural Know-How

Both Dr. Pritts and Dr. Kerik Cox, New York State Small Fruit Extension Pathologist, emphasized the fact that blueberry botany plays a factor in how you take care of them. You need to know that they form their flower buds in the fall (one good reason not to prune in the fall), enter winter dormancy and then begin the sequence of development so critical to cultural activities: bud swell, bud break, shoot elongation, flowering, fertilization, fruit set, petal fall, fruit swell, fruit coloring, harvest, terminal growth cessation, bud initiation, bud differentiation, leaf coloring, leaf abscission (dropping off in the fall) and dormancy. When the blueberry plant is in flower, new canes rise from the base of the plant – they end this type of growth in late summer. Flower and leaf bud initiation occurs at the same time on new canes and older canes.

Blueberries have fine, fibrous roots near the soil surface. They do not have root hairs so the roots are not readily able to take up water and nutrients on their own, relying instead on the fungi mentioned above. Roots grow in the spring when soil warms to about 43 degrees and slow down as berries mature and ripen. AFTER harvest, they resume activity, growing in early autumn, stopping once soil temps again reach below 43 degrees. Therefore, optimum time for fertilization is early spring when root growth begins and late spring when it peaks. It is applied at the dripline where 90% of the roots are located. On mineral soils, organic compost helps improve soil structure and increase root penetration. This results in higher yields, as does irrigation.

Students in this school received Cornell’s *Highbush Blueberry Production Guide* that details the cultural practices, site preparation, propagation, variety selections, pest management, and more. This manual is available through your local Cornell Cooperative Extension. Together with Cornell’s extensive fruit website: <http://www.fruit.cornell.edu>, anyone

already in the business or anyone wanting to start-up a blueberry empire (may as well think big), can keep on top of production and market news. They can access the NYS Berry Growers Association, other fruit groups, Cornell fruit specialists, fruit nurseries, Cornell pathology, entomology and soil laboratories, and more.

Pruning

This workforce training school was also fortunate to have a small U-Pick operation run by the Green Thumb Nursery in Hamden. Since the owners spent the majority of their time in the nursery business, the blueberry fields had not received recent pruning. They endured the massive floods of 2006 that devastated the town of Walton and surrounding areas and they produced a reasonably good crop of berries. The owner of this U-Pick attended this training to learn how to maintain a better operation. The first demonstration Dr. Pritts “committed” was pruning. “A good rule of thumb”, he said, “is to take out the two oldest canes each year in early spring (April) when you can see the extent of winter damage.” We stood aghast as he proceeded to remove the two oldest canes from a plant, and watched as a whole new shrub emerged. Its height was greatly lowered and the remaining shrub had good empty areas for air circulation and new cane growth. He reassured us that new canes would come up from the crown of the plant and it would be more productive at a height easier to pick. He added: “In April you can see the winter-killed wood more easily and the carbohydrates produced in the fall have moved to the roots and crown by this time. Pruning after harvest will reduce production and make the plants more susceptible to winter injury.” After pruning Dr. Pritts demonstrated how to take cuttings for propagation.



Dr. Marvin Pritts demonstrates how to take a cutting for propagation.

Nuisance Wildlife Control

Cornell Wildlife Specialist Paul Curtis provided for a very lively grower discussion on ways to foil (but not conquer) the several species of wildlife that also love blueberries. Farmers in the school had a lot to add to the dialogue. One noted that his netting was a pain to put up and then the wind ripped it to shreds – and it was expensive to boot. Terry Perfetti was philosophical about birds – he stayed on top of picking and at the end of the season when the berries were good but not peak in quality, he left the birds their due. Curtis covered auditory and visual devices to scare birds away, noting that both need to be done randomly as birds catch on quickly that the threat is not real. They need to be very loud and moved often. He stressed that growers should contact their local DEC when having a wildlife problem to learn what they can and cannot do.

Deer damage blueberries by feeding on foliage, twigs, buds and fruit – they don’t have upper front teeth and have to pull or tear the branches off so that they have ragged broken ends, as compared with those clipped cleanly by rabbits or rodents. One farmer in the school noted that deer damage in his fields was caused by their rubbing their antlers along the branches in the fall. We visited his field during the school and were able to see this damage firsthand. Curtis noted that allowing people to hunt on your land and use of repellents are the controls most producers use for deer control.

Meadow mice or “voles” do their damage mostly in the fall and winter months. Trapping methods were discussed, as well as mowing of alleys and use of plant guards, hardware cloth (1/4” mesh) and rodenticides.

Farmers in the class discussed what they tried, what worked and what didn’t work. It was agreed that Paul Curtis is a fount of wildlife knowledge and his talk generated a very animated exchange between growers, reinforcing ideas and adding new ideas to their arsenal of wildlife control.

Become a Vigilant Scout

Dr. Kerik Cox led the discussion on both disease and insect identification, scouting methods and control. Students received a copy of Michigan State’s “A Pocket Guide to IPM Scouting in Highbush Blueberries” and were able to follow along as he went through the top diseases and insects that plague blueberry operations.



Dr. Kerik Cox examines specimens found during scouting.

The guide gives clear photos and descriptions of blueberry growth stages and scouting calendars for diseases and insects based on these growth stages. Color codes for diseases show when infection begins, when symptoms can be seen and when controls may be needed. Color codes for insects show key monitoring and control times, and potential pest activity. Cox covered the major types of insects and diseases, how to minimize pests through basic cultural practices, how to scout for signs and symptoms, and management options for each pest. Participants were excited when they visited the nearby berry field and found witch's broom, rust, canker, and galls of the blueberry stem gall wasp – the owner of the field took it all in good stride.

Making Your Farm a Destination

The liveliest day was when the farmer educators came and talked turkey...well, marketing. Jim Binsberger of Homestead Orchards became a SARE (Sustainable Agricultural Research & Education) sponsored “educator” because he and his family developed a dynamic on-farm program of fun. His apple orchard went from the normal couple hundred visitors to literally thousands in a season. This farm created a fall fantasia with simple events or activities that became family



traditions, such as: scarecrow making (you get a scarecrow birth certificate, name your scarecrow and it becomes a member of your family); likewise, you get to weigh and adopt all your pumpkins and promise to make them the center of family Halloween activities with adoption papers signed by “Farmer Jim”. There’s the easy-to-make “Mega Corn Maze”; the 25’ pumpkin eating Dinosaur, the small-child hay maze, the farm tours by hay wagon, the animal petting section, the educational areas including a talking/teaching Johnny Appleseed, and of course, the food: fruit pies, cider, doughnuts, apple dumplings, cookies, corn stalks, gourds, straw, squash, ornamental corn, pumpkins, apples, U-Pick popcorn, and more. His greatest idea: making large wooden pull-wagons that people take to the pumpkin fields with them and carry back laden with lots of pumpkins, priced by the pound. Those wagons made him a lot of money! Jim is available as a SARE Farmer Educator and can be reached at: 215-257-9286; or e-mail: hoi@netcarrier.com.

SARE Educator Jim Binsberger dazzles the group with agri-tourism ideas that work

Cherry Knoll Farm: Blueberry U-Pick & Winery

The sixth generation to own Cherry Knoll Farm, Terry Perfetti grows ten varieties of blueberries and harvests about 30,000 pounds annually on his 5.5 acres. In 1998, he started to experiment with wine making, primarily because people told him it wasn't possible to make a good tasting pure blueberry wine. By 2005 he felt he had developed a great blueberry wine and received his winery license. In January of 2006, he started selling four blueberry wines: a sweet wine, two semi-sweets and a dry wine. He also created “gourmet” blueberry wine vinegar. Terry credits Cornell's Food Venture Center in Geneva for helping him get this venture off the ground and he takes his products to be bottled at Morrisville College's Nelson Farms in Cazenovia.



Terry Perfetti talks about his Cherry Knoll Farm blueberry wines and gourmet vinegar

With the U-Pick operation and his value added products, very little goes to waste. Currently fourteen retail stores sell his wines and four carry his vinegars. “It takes good wine to make good vinegar”, he notes. This summer Terry entered his wines in the 2006 New York Wine and Food Classic and the 2006 INDY International Competition. His dry and sweet wines received bronze awards at both competitions. As a newcomer to wine and wine making, these awards are quite an achievement.

It is this mix of learning from Cornell small fruit specialists and experienced farmers, plus the afternoon field trips that makes workforce training worthwhile for farmers and their employees. The Agricultural Workforce Certification program is an educational program for farm employees conducted by Cornell Cooperative Extension and funded by the NYS Department of Agriculture and Markets. The program helps New York farmers recruit, train and place agricultural employees.

MULCHING STRAWBERRIES PREMATURELY CAN LESSEN SURVIVAL ODDS

Kevin Iungerman, Extension Associate, Cornell Cooperative Extension Northeastern New York Commercial Fruit Program, Balston Spa, NY

Last month I wrote about dormancy onset in strawberries in connection with 2,4-D and other herbicide use. Late fall mulch timing has some implications for energy expenditure in connection with dormancy attainment and the balance of energy banked in dormant tissue within the crown until spring when it is expended for renewal growth. Attaining the final deep dormancy level requires the fullest acclimation period possible so as to enhance a maximum over-wintering survival potential. We know this continues until cold temperatures finally close out further gain. But applying mulch prematurely can unwittingly abridge the process and rob your planting of its maximum edge going into winter. As was noted, deep dormancy involves external factors (changing temperatures and changing light levels) but it also requires internal plant physiological responses. Any time a plant undergoes a physiological response, there is an expenditure of energy. That energy is either drawn from reserves in the crown and roots or it is drawn more directly from photosynthesis via its leaves.



Practically speaking, even though early stage dormancy is reached in October, mulching anytime before mid-November is tantamount to shutting down light interception many weeks before the full energy gain potential of the fall months can be realized, meaning that a portion of the potential energy supply necessary to supporting complete winter acclimation is foresworn. Since winter survival very often hinges upon very small differences of energy to maintain plant health, the effects of premature mulching are not insubstantial; to the contrary, effects can be quite significantly negative.

The latter part of November is generally recommended as the strawberry mulch window in our area. Defer even later, into early December, if weather conditions allow (no snow and the fields are still amenable to tractors, wagons, and equipment. Track the progression of ground temperatures, noting when time where soil temperatures are running at 40°F over several consecutive days. You should apply your mulch prior to the ground freezing. If field conditions allow, October is fine time for a final shallow tillage, particularly with finger or tine-type attachments capable of disrupting all those fine biannual and winter annual “weedlings” which will invariably just be sitting there acclimating prior to their winter insulation cover. Follow any final tillage with a pre-emergent and/or mulch (depending on cultural practices).

Straw remains the mulching material of choice on strawberries. Wheat, rye, Sudan, barley and oat straws work well (and my preference is in the same order). Straws coarser than Sudan grass are not recommended. But clean! Clean! Clean straw is essential! As you would scrutinize the performance of tilling equipment or herbicides for their efficacy and cost to results ratio, don't overlook doing this with your straw! If your primary criterion is the price per bale, then you are inviting trouble! If possible, examine the straw for its grain or weed seed contamination before you purchase it, and certainly before you apply it! Don't import headaches that might largely be avoided with just a little extra care. With clean straw, it is always in the timing of its cut, whether you are purchasing grain or grass straw. If need be, it is preferable to grow it yourself or to have it contract-grown so that you can closely control or monitor its cutting time. (Cut before the seed is viable!) It is no bargain to use seed-contaminated straw, as you will surely pay for the hidden extras in herbicides, cultivation, labor and headache.

Remember: Mulching Reduces Risk! Research Provides Plenty of Reasons to Mulch Strawberries Adequately!

Unprotected strawberry plants are very vulnerable to desiccation from exposure to drying winter winds. Don't skimp. Cold can do considerable mortal damage. Crowns reportedly kill when their plant cells reach temperatures of about 7°F to 10 °F (-12°C to -14°C).

- √ Traditional level matted row plantings will require 2.5 to 3 tons of straw per acre, for a 2-3 inch deep mulch (about 300 small bales of average weight).
- √ Raised bed plantings have greater vulnerability as they can be 4-6°C colder than flat beds. You thought high is better than low? But consider surface area differences. Raised beds have greater soil surface area relative to the rooting area that is exposed to radiant cooling. In spring you take advantage of the same principle but to reverse effect: greater warming. Consequently, add more straw to raised beds - perhaps twice the amount for adequate coverage (4-5 tons). The same might be done (or amplified) with less hardy cultivars or windier locations. However, it would be better to long term to either choose hardier cultivars or to establish windbreaks -- the latter especially important to maintain soil against wind erosion.

- √ Mulch covers deter extensive root shearing by considerably suppressing late winter-spring soil heaving associated with freezing/ thawing cycles. Because less shearing -- i.e. wounding of roots -- takes place, there is less opportunity for invasive infection by fungal, bacterial, and nematode pests. Black root rot has been demonstrated to be less severe in mulched versus unmulched plantings.

Since it takes appreciable time to mulch even smaller plantings by hand, bale choppers are recommended to break up the small or large round bales and to distribute the straw over the beds.

- √ What is a reasonable price to pay? A price of \$2.50 / bale even in 2004 was not excessively high. Energy prices likely have inflated this somewhat. Think about not only how mulch helps you avoid risks (thus costs) but also how it helps you make more money because you can grow cleaner berries, develop more attractive fields with better weed suppression, and achieve greater organic matter addition. ("*Straw is the most important input in a matted row strawberry planting*" ... not Mao, Marvin Pritts, Cornell U.)
- √ Be willing to use a generous amount of straw for mulching. Consider this cost-to-benefit ratio: one bale of straw will generally cover 30 ft. of row, a run which can give you 30 quarts of berries. For the investment of the price of one quart of berries, you are likely to return 30 quarts of clean, easy-to-harvest berries. I would say it is a no-brainer.
- √ Finally, maintain a reserve of bales in a dry, freeze-free location that are readily available for immediate replacement use should straw blow off any areas. Monitor things often, especially if snow cover is light and wind is experienced.

NYFVI-FUNDED HIGH TUNNEL PROJECT OFFERS GROWERS HIGH HOPE OF PROFITABILITY

Kara Dunn, Publicist, New York State Farm Viability Institute, Inc.

Extending the growing and selling seasons by as much as 10 weeks is the focus of a high tunnel project funded by the New York Farm Viability Institute, Inc. Researchers suggest the use of high tunnels by New York growers will increase over the next four years with a resulting gain of \$500,000 per year to the farm-gate value of NY horticultural crops.

High tunnels are unheated greenhouses. The structures protect crops from frost damage for earlier Spring growth and later Fall harvest. The tunnels can be four or five degrees warmer than outside temperatures. Growers use inexpensive irrigation systems to control moisture and humidity which helps reduce disease and insect problems.

Project leader and Cornell University Horticulture Professor Hans C. Wien says, We want something simple and cost-effective that will produce profitable crops. High tunnels have been used for many years in China, Japan and Korea. We believe growers in New York can successfully put plants out in mid-April and grow until mid-November.

Growers in Delaware, Schuyler, Tioga and Yates counties are growing tomatoes, peppers, cucumbers, fruit and flowers to test high tunnel production. A Delaware County grower has just begun harvesting a high tunnel raspberry crop.

A Tioga County grower is providing data for comparing the energy, labor, and material costs of a no-frills tunnel with a tunnel enhanced with heat and electrical hookups. He was able to set out tomatoes as early as February.

In Yates County, grower Howard Hoover makes 25-foot-square high tunnel frames that four people can pickup to move away from any soil problems or diseases.

Researchers at Penn State University's high tunnel farm are testing tunnel cover materials and growing peppers and sunflowers. New York growers will compare high tunnel cover treatments in 2007. Testing of ground cover treatments and low tunnels is taking place at Cornell.

Wien says a cut flower grower in the Ithaca area has seen yields and profits such that the high tunnel may pay for itself in two growing seasons. Wien says, The grower has distinguished herself as the first to have sunflowers for sale in the local market in the spring and that advantage brings a premium price.

Cornell University specialists advising the project also include Biological and Environmental Engineering Professor Louis D. Albright, Horticulture Professor Marvin P. Pritts, Applied Economics and Management specialist Wen Fei Uva.

The New York Farm Viability Institute, Inc. is a farmer-led, farmer-driven, independent not-for-profit corporation that funds research, extension and innovative technologies for New York agricultural and horticultural producers. The Institute

grants funds for projects that directly benefit producers at the enterprise level across farms of all sizes and all commodity areas. For more information, contact the New York Farm Viability Institute, 159 Dwight Park Circle, Suite 104, Syracuse, NY 13209, 315-453-3823, <http://www.nyfarmviability.org>.

For more information on the high tunnel project, contact Hans C. Wien, Cornell University Horticulture Department, 607-255-4570.

MIDSEASON EXTENSION: STRAWBERRY MARKET SHARE BACK FROM CA?

Kevin Iungerman, Extension Associate, Cornell Cooperative Extension Northeastern New York Commercial Fruit Program, Balston Spa, NY

Last year at the Great Lakes Expo, Eric Hanson of Michigan State reflected on a situation known to NY. He noted that Michigan strawberry acreage had consistently given way to California berries over the previous 30 years. But perhaps season extension might help local growers take back a part of this market, and also supply local farm markets and pick-your-own activities throughout the summer and fall by integrating existing cropping components into a new synthesis.

In 2005 the MSU researchers set out to see if an integrated adaptation of plasticulture, high tunnels, modified planting times, and both day-neutral and new late season short-day strawberry plants might provide an alternative way of getting high quality Michigan strawberries to consumers beyond summer's traditional times. The goal was to realize continuous production from May until October. The work was launched at the Southwest Michigan research and Extension Center in Benton Harbor (SWMREC).¹ Plots of the June-bearing varieties Chandler, Darselect, Honeoye, Jewel, L'Amour, and Ovation were planted in May, 2005 in matted row beds, and reports of their first harvest data - this season - will likely be reported on this December.² The day-neutral varieties Seascape, Tribute, and Everest were planted on plastic-covered raised beds. Identical plots were established inside Haygrove High Tunnels and in the field next to the structures. Day-neutral plots were harvested in 2005 from the middle of August to the middle of October.

In these first reports (Table 1.) day neutral yields were higher outside of the tunnels than inside, but average berry weight and rot incidence was not different. Seascape berry size was greater than Tribute, but Tribute the greater yielder.

Table 1. Day-neutral strawberry yields, size, and rot incidence, SWMREC, 2005.

Location/variety	Yield (lb/acre)	Berry weight (g)	Rot (%)**
Field Seascape	14,400	8.2	3
Field Tribute	18,900	5.8	10
Tunnel Seascape	11,300	7.7	5
Tunnel Tribute	12,900	5.7	26
Tunnel Everest*	18,000	6.8	--

* Single plot only of Everest.
** Samples from 3 Oct harvest, stored for 24 h at 68 °F.

Everest was described as being relatively productive but this result is limited as it was apparently based on a single plot rather than multiple ones. Peak harvest of both Seascape and Tribute came in mid August to late September.

Yields were reported to have dropped off dramatically in October irrespective of being field or tunnel grown.

August and September of 2005 experienced unusually hot weather and this is believed to have induced considerable stress in all of the berry populations, with higher temperatures in the tunnels having more impact (Figure 1 below).

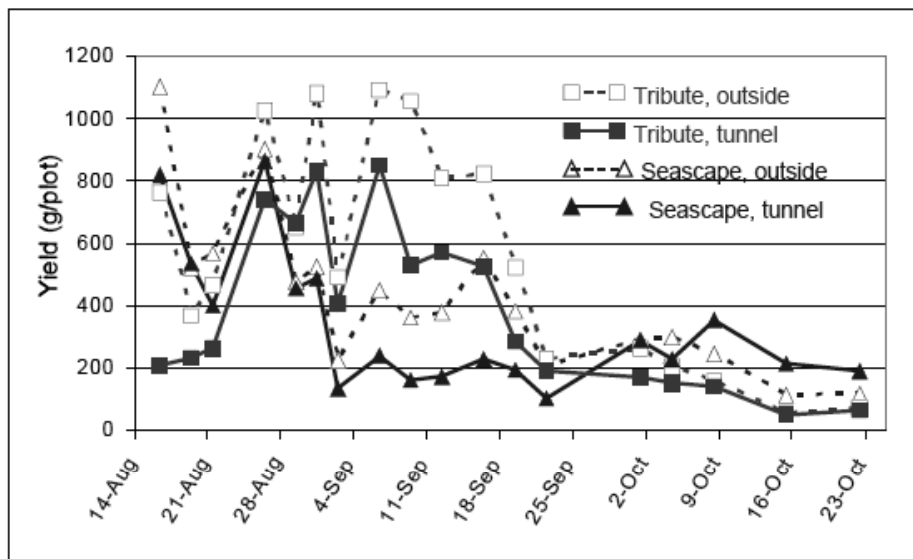


Figure 1. Yield of day-neutral strawberries at SWMREC, 2005.

The three year research effort will continue through 2007, and it is hoped that over this timeline, relative harvest seasons and fruit quality differences (and perhaps potential cost projections and returns? K.) will be projected in greater detail as the research plays out. Perhaps installment two will come at the Michigan Fruit and Vegetable Expo this year.

Notes:

1. "Extending the Michigan Strawberry Marketing Season", Eric Hanson, Horticulture Dept., MSU, Great Lakes Fruit and Vegetable Expo, December 2005.
2. This year's GLF&V Expo takes place December 5, 7. See calendar.

WEATHER NOTES

NEW YORK CROP WEATHER SERVICE NOTES

Week of October 1st – The last week of September featured very changeable weather. On Sunday a cold front passed through the region sparking showers and some thunderstorms. Much of Monday was dry with seasonal temperatures and a weak high pressure in control, however, by Monday evening another cold front dove southeast through the Great Lakes and produced more showers and thunderstorms across the northern and western part of the state. Tuesday and Wednesday featured dry conditions as high pressure drifted eastward across the state. After cool starts to both days temperatures warmed up nicely during sun filled afternoons. As the high drifted off the eastern seaboard, a southerly flow developed across the region and helped boost temperatures into the 70's in many areas on Thursday. By Thursday night though, a low pressure system developed in the mid-Atlantic region and tracked northeast through eastern New York. This storm system brought moderate to locally heavy rainfall to the entire state. The rain lingered into the first half of Friday across the eastern portion of the state, before drier and cooler air filtered in from the Great Lakes region. After a chilly start to the day Saturday, temperatures rebounded to near seasonal levels with increasing clouds ahead of the next system that brought some light rainfall to western New York by the end of the day.

Week of October 8th – The first week of October started out wet with a low pressure system that moved north of the St. Lawrence River Valley. Its associated occluded front moved through the region with some wet weather. High pressure briefly built in on Monday with dry weather that lasted into Tuesday. Another cold front brought scattered showers and even a few thunderstorms over southern New York and Long Island on Wednesday. A cool air mass descended on New York from the upper Great Lakes region and Ontario on Thursday and that ridge of high pressure has kept it dry through Saturday. There were widespread frosts and freezes across New York State Friday and Saturday nights. Freezes generally occurred north and west of the Capital District that ended the growing season. Precipitation was near normal to slightly above normal across eastern New York and Long Island. Rainfall was slightly below normal over central and western New York. Temperatures were near normal to slightly below normal for the week.

Week of October 15th – High pressure remained over the northeast and Mid-Atlantic region to open the week before a dry cold front moved across New York Monday night into Tuesday morning. A strong low pressure system moved through the central Great Lakes region on Wednesday. The warm front east of the low produced very heavy rainfall over portions of southern New York and Long Island Wednesday night into Thursday morning. A potent cold front moved across upstate New York Thursday morning into the afternoon with a frigid air mass behind the boundary. A lake effect snowstorm occurred over extreme western New York and the Niagara Frontier into Friday. Locations near Buffalo had 1 to 2 feet of heavy wet snow. The unseasonably cold air mass in the wake of the cold front produced frosts and freezes Friday and Saturday mornings over much of New York State including the Capital Region, Mid Hudson Valley, and lower Catskills. Precipitation was well above normal over western New York and Long Island. Most other locations had normal to slightly below normal values except over northern New York and portions of the Finger Lake Region where precipitation was below normal. Temperatures were near normal to slightly below normal for the week.

Week of October 22nd – The week started out dry and unseasonably cold with high pressure over the Mid-Atlantic region and northeast. The air mass was cold enough to cause widespread freezes and frosts Sunday and Monday mornings. This ended the growing season over most of the state, except across portions of the lower Hudson Valley and Long Island. A complex storm system with a pair of low pressure systems over the lower Great lakes region and the Tennessee Valley brought significant rainfall to the state Wednesday. A weak surface anticyclone produced a brief period of dry weather Thursday before a slow moving cold front that extended from southern Quebec; southwest to the lower Mississippi River Valley brought another period of unsettled weather to close the week. A wave of low pressure formed along the boundary near the Mid-Atlantic region Friday morning and moved northeast over southern New York and central New England with moderate to heavy rainfall over portions of northern and central New York. Flooding occurred in the western Mohawk Valley and the Adirondack region. The precipitation changed to heavy wet snow in the Adirondacks and higher elevations of western and central New York. High pressure moved back in Saturday from the Tennessee Valley with drier weather. Precipitation was well above normal for the week and mean temperatures were below normal by a few degrees. The highest rain totals were over central New York.

Note: This is the last edition of the New York “Weather and Crops” for the 2006 season. The New York Field Office gratefully acknowledges the weekly cooperation of the Agricultural Weather Information Service, Inc., National Weather Service personnel, Agricultural Extension agents, FSA representatives, and independent volunteer observers who collectively make these reports possible.

Check out the NYSAES Tree Fruit and Berry Pathology web site at:
www.nysaes.cornell.edu/pp/extension/tfabp

Questions or Comments about the New York Berry News?

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**WEATHER REPORTS OF TEMPERATURES AND PRECIPITATION THROUGHOUT
NEW YORK STATE FOR WEEK ENDING SUNDAY 8:00am, October 1st, 2006**

	Temperature			Growing Degree Days (Base 50)			Precipitation (inches)				
	High	Low	Avg	DFN ¹	Week	YTD ²	DFN	Week	DFN	YTD	DFN
	Hudson Valley										
Albany	74	35	58	2	58	2748	332	2.03	1.40	29.58	9.87
Glens Falls	75	32	55	1	41	2251	158	1.32	0.64	28.20	8.64
Poughkeepsie	78	38	59	2	64	2861	313	1.43	0.70	33.66	10.99
Mohawk Valley											
Utica	72	36	56	0	45	2373	176	1.43	0.51	28.52	5.13
Champlain Valley											
Plattsburgh	77	34	55	1	46	2396	276	0.22	-0.41	20.21	1.10
St. Lawrence Valley											
Canton	72	34	53	-2	28	2208	302	2.74	1.93	19.37	-1.25
Massena	73	31	54	1	40	2270	281	0.79	0.06	21.19	2.37
Great Lakes											
Buffalo	75	42	55	-3	40	2723	379	1.56	0.84	22.44	2.04
Colden	71	39	52	-3	23	2052	157	1.33	0.34	25.49	1.50
Niagara Falls	75	40	55	-4	39	2611	263	1.17	0.43	20.15	0.17
Rochester	76	42	58	0	54	2814	539	1.14	0.53	24.26	6.77
Watertown	74	32	56	1	50	2331	372	1.10	0.42	17.55	1.09
Central Lakes											
Dansville	74	38	54	-4	36	2383	104	1.32	0.61	25.63	6.39
Geneva	72	39	54	-3	37	2362	105	1.65	0.95	25.12	6.13
Honeoye	73	39	55	-4	38	2346	-30	1.18	0.48	21.65	2.86
Ithaca	72	35	54	-2	37	2202	165	0.65	-0.12	25.66	5.14
Penn Yan	74	42	57	-1	49	2546	289	1.00	0.30	18.38	-0.61
Syracuse	74	38	58	1	57	2670	376	1.26	0.44	28.64	7.02
Warsaw	69	38	50	-4	14	1960	222	1.69	0.84	30.05	7.49
Western Plateau											
Alfred	69	33	50	-5	14	1801	87	1.55	0.78	25.82	4.56
Elmira	73	34	54	-2	34	2270	120	0.56	-0.14	26.32	7.07
Franklinville	70	34	50	-4	18	1871	297	1.92	1.03	26.47	3.68
Sinclairville	71	35	52	-4	25	2131	349	2.31	1.29	24.11	-1.40
Eastern Plateau											
Binghamton	71	36	54	-2	35	2242	164	1.94	1.21	32.28	11.91
Cobleskill	74	34	53	-2	31	2131	198	1.19	0.39	29.45	7.48
Morrisville	68	35	52	-3	23	1963	125	1.63	0.75	37.41	15.32
Norwich	71	35	53	-2	29	2134	200	1.99	1.18	34.42	12.59
Oneonta	74	34	55	2	39	2453	683	1.82	1.04	33.52	10.24
Coastal											
Bridgehampton	77	41	61	2	79	2764	323	0.43	-0.34	38.19	16.79
New York	83	54	67	4	121	3840	593	0.12	-0.60	31.08	8.59

1. Departure from Normal

2. Year to Date: Season accumulations are for April 1st to date

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NEW YORK STATE FOR WEEK ENDING SUNDAY 8:00am, October 8th, 2006**

	Temperature				Growing Degree Days (Base 50)			Precipitation (inches)			
	High	Low	Avg	DFN ¹	Week	YTD ²	DFN	Week	DFN	YTD	DFN
	Hudson Valley										
Albany	75	33	54	-1	31	2779	325	1.01	0.38	30.59	10.25
Glens Falls	69	28	51	-2	23	2274	154	0.92	0.29	29.12	8.93
Poughkeepsie	76	39	56	1	40	2901	310	0.84	0.14	34.50	11.13
Mohawk Valley											
Utica	67	33	52	-2	27	2400	168	0.61	-0.19	29.13	4.94
Champlain Valley											
Plattsburgh	71	30	51	-2	20	2416	269	0.32	-0.25	20.53	0.85
St. Lawrence Valley											
Canton	69	28	52	2	24	2232	301	0.67	-0.10	20.04	-1.35
Massena	68	29	50	-2	18	2288	274	0.17	-0.48	21.36	1.89
Great Lakes											
Buffalo	69	37	54	-2	35	2758	370	0.90	0.20	23.34	2.24
Colden	67	33	49	-4	10	2062	135	0.92	0.05	26.41	1.55
Niagara Falls	68	35	54	-2	34	2645	252	1.14	0.49	21.29	0.66
Rochester	71	36	55	1	41	2855	536	0.73	0.17	24.99	6.94
Watertown	71	29	51	-1	24	2355	365	1.17	0.54	18.72	1.63
Central Lakes											
Dansville	70	34	53	-2	28	2411	89	0.98	0.34	26.61	6.73
Geneva	71	35	52	-2	26	2388	91	0.25	-0.43	25.37	5.70
Honeoye	71	33	51	-5	22	2365	-58	0.45	-0.22	22.10	2.64
Ithaca	68	29	51	-3	21	2223	152	0.71	-0.06	26.37	5.08
Penn Yan	68	34	54	-1	34	2580	283	0.60	-0.08	18.98	-0.69
Syracuse	70	33	53	-3	30	2700	363	0.25	-0.52	28.89	6.50
Warsaw	65	34	49	-3	12	1972	209	0.92	0.14	30.97	7.63
Western Plateau											
Alfred	65	30	49	-3	10	1811	71	1.00	0.29	26.82	4.85
Elmira	70	32	52	-2	25	2295	109	0.40	-0.23	26.72	6.84
Franklinville	68	30	49	-2	13	1884	287	1.04	0.20	27.51	3.88
Sinclairville	69	33	52	0	18	2149	339	0.83	-0.10	24.94	-1.50
Eastern Plateau											
Binghamton	71	36	53	0	28	2270	160	0.43	-0.24	32.71	11.67
Cobleskill	73	30	51	-2	24	2155	192	0.74	0.02	30.19	7.50
Morrisville	64	32	50	-2	16	1979	115	0.47	-0.33	37.88	14.99
Norwich	68	31	51	-1	19	2153	192	0.52	-0.24	34.94	12.35
Oneonta	74	32	54	3	30	2483	688	0.72	-0.05	34.24	10.19
Coastal											
Bridgehampton	74	43	58	2	61	2825	328	0.44	-0.27	38.63	16.52
New York	84	53	65	4	103	3943	617	0.84	0.16	31.92	8.75

1. Departure from Normal

2. Year to Date: Season accumulations are for April 1st to date

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	High	Low	Avg	DFN ¹	Week	YTD ²	DFN	Week	DFN	YTD	DFN
	Hudson Valley										
Albany	77	29	52	1	30	2809	329	0.52	-0.11	31.11	10.14
Glens Falls	74	24	49	0	19	2293	156	0.40	-0.23	29.52	8.70
Poughkeepsie	78	31	53	2	37	2938	317	1.44	0.79	35.94	11.92
Mohawk Valley											
Utica	73	27	51	2	33	2433	177	0.18	-0.55	29.31	4.39
Champlain Valley											
Plattsburgh	76	29	50	2	22	2438	273	0.31	-0.25	20.84	0.60
St. Lawrence Valley											
Canton	69	33	50	3	26	2258	310	0.44	-0.27	20.48	-1.62
Massena	70	29	50	3	25	2313	283	0.11	-0.52	21.47	1.37
Great Lakes											
Buffalo	69	32	52	-1	35	2793	374	4.30	3.66	27.64	5.90
Colden	70	30	49	-1	24	2086	137	1.27	0.44	27.68	1.99
Niagara Falls	72	33	52	-2	36	2681	256	2.24	1.63	23.53	2.29
Rochester	76	34	54	2	43	2898	548	0.74	0.21	25.73	7.15
Watertown	68	36	51	2	25	2380	369	0.87	0.28	19.59	1.91
Central Lakes											
Dansville	77	30	51	-2	35	2446	93	0.54	-0.05	27.15	6.68
Geneva	75	28	51	-2	32	2420	95	0.44	-0.19	25.81	5.51
Honeoye	77	28	51	-2	35	2400	-57	0.37	-0.26	22.47	2.38
Ithaca	74	28	50	0	28	2251	156	0.14	-0.63	26.51	4.45
Penn Yan	78	30	54	3	42	2622	297	0.30	-0.33	19.28	-1.02
Syracuse	75	28	54	2	39	2739	371	0.21	-0.49	29.10	6.01
Warsaw	73	30	49	0	26	1998	218	1.39	0.64	32.36	8.27
Western Plateau											
Alfred	75	30	48	-1	20	1831	73	0.71	0.03	27.53	4.88
Elmira	78	30	52	3	38	2333	122	0.15	-0.48	26.87	6.36
Franklinville	74	30	49	2	28	1912	299	1.00	0.16	28.51	4.04
Sinclairville	77	32	50	1	30	2179	351	0.53	-0.37	25.47	-1.87
Eastern Plateau											
Binghamton	74	29	52	3	39	2309	178	0.24	-0.39	32.95	11.28
Cobleskill	75	30	50	0	18	2173	191	0.28	-0.41	30.47	7.09
Morrisville	71	26	49	1	26	2005	124	0.41	-0.36	38.29	14.63
Norwich	77	28	50	2	26	2179	200	0.36	-0.34	35.30	12.01
Oneonta	76	30	52	4	28	2511	698	0.08	-0.67	34.32	9.52
Coastal											
Bridgehampton	74	33	56	1	46	2871	332	0.57	-0.13	39.20	16.39
New York	80	45	62	4	84	4027	640	2.30	1.67	34.22	10.42

1. Departure from Normal

2. Year to Date: Season accumulations are for April 1st to date

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**WEATHER REPORTS OF TEMPERATURES AND PRECIPITATION THROUGHOUT
NEW YORK STATE FOR WEEK ENDING SUNDAY 8:00am, October 22nd, 2006**

	Temperature			Growing Degree Days (Base 50)			Precipitation (inches)				
	High	Low	Avg	DFN ¹	Week	YTD ²	DFN	Week	DFN	YTD	DFN
	Hudson Valley										
Albany	66	30	49	0	19	2828	331	1.65	1.02	32.76	11.16
Glens Falls	63	25	47	1	13	2306	160	2.57	1.94	32.09	10.64
Poughkeepsie	72	31	51	2	25	2963	323	1.29	0.59	37.19	12.47
Mohawk Valley											
Utica	66	29	48	-1	13	2446	174	2.10	1.40	31.41	5.79
Champlain Valley											
Plattsburgh	66	26	47	0	12	2450	275	2.14	1.58	22.98	2.18
St. Lawrence Valley											
Canton	60	25	46	0	8	2266	309	2.22	1.52	22.70	-0.10
Massena	64	24	46	0	14	2327	287	1.19	0.57	22.66	1.94
Great Lakes											
Buffalo	61	37	51	2	20	2813	372	1.66	0.96	29.30	6.86
Colden	64	30	47	-1	11	2097	134	2.17	1.34	29.85	3.33
Niagara Falls	61	33	50	0	21	2702	255	1.54	0.92	25.07	3.21
Rochester	66	36	52	3	29	2927	556	1.76	1.22	27.49	8.37
Watertown	63	31	48	2	16	2396	372	1.85	1.24	21.44	3.15
Central Lakes											
Dansville	71	31	49	-1	19	2465	91	2.21	1.65	29.36	8.33
Geneva	66	33	48	-2	13	2433	90	2.56	1.93	28.37	7.44
Honeoye	69	30	48	-3	12	2412	-68	2.23	1.60	24.70	3.98
Ithaca	70	26	48	0	15	2266	155	2.47	1.77	28.98	6.22
Penn Yan	72	33	50	2	24	2646	303	2.38	1.75	21.66	0.73
Syracuse	69	32	51	2	24	2763	374	3.15	2.45	32.25	8.46
Warsaw	65	31	47	2	11	2009	218	2.25	1.53	34.61	9.80
Western Plateau											
Alfred	65	25	45	-2	8	1839	69	2.40	1.77	29.93	6.65
Elmira	72	24	49	2	24	2357	130	2.17	1.54	29.04	7.90
Franklinville	61	26	45	-1	7	1919	296	2.38	1.59	30.89	5.63
Sinclairville	61	28	46	0	4	2183	343	2.17	1.27	27.64	-0.60
Eastern Plateau											
Binghamton	68	32	48	2	17	2326	182	2.38	1.75	35.33	13.03
Cobleskill	67	27	46	-2	11	2184	190	1.53	0.90	32.00	7.99
Morrisville	64	29	46	-1	5	2010	119	3.32	2.60	41.61	17.23
Norwich	69	25	47	1	16	2195	206	2.21	1.51	37.51	13.52
Oneonta	69	28	48	3	17	2528	704	1.92	1.16	36.24	10.68
Coastal											
Bridgehampton	72	33	54	1	34	2905	336	0.87	0.10	40.07	16.49
New York	74	47	60	4	69	4096	662	1.34	0.67	35.56	11.09

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