CORNELL UNIVERSITY

New York Berry News

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CURRANT EVENTS

November 8-10, 2010: *Southeast Strawberry Expo*, Wyndham Hotel in Virginia Beach, VA. Workshops and farm tour on Nov. 8, educational sessions and trade show on Nov. 9-10. For more information, visit <u>www.ncstrawberry.com</u> or contact the NC Strawberry Association, 1138 Rock Rest Rd., Pittsboro, NC 27312, 919-542-4037, <u>info@ncstrawberry.com</u>.

November 13, 2010. *Tips for Extending the Northern NY Vegetable and Berry Seasons Workshop*. See news brief below for more.

December 7-9, 2010. *Great Lakes Fruit Vegetable and Farm Market EXPO*, DeVos Place Convention Center, Grand Rapids, Michigan. For more information: <u>http://www.glexpo.com</u>.

January 6-7, 2011. NARBA (North American Raspberry and Blackberry Growers Association) Annual Meeting, Savannah, GA.

January 27, 2011. *Empire State Fruit and Vegetable EXPO berry session*. Mark your calendar now - details to follow in the next issue.

January 31 – February 3, 2011. *Mid-Atlantic Fruit and Vegetable Convention* at the Hershey Lodge in Hershey, PA. For more information visit <u>www.mafvc.org</u>.

February 8-11, 2011. 7th North American Strawberry Symposium and joint North American Strawberry Growers Association Meeting. Tampa, Florida. Agenda follows below.

March 5, 2011. *Planting, Cultivating, and Marketing Juneberries in the Great Lakes Region*. NYS Agricultural Experiment Station, Geneva, NY. For more information: Nancy Anderson (585) 394-3977 x427 or e-mail <u>nea8@cornell.edu</u>.

June 22-26, 2011. *10th International Rubus and Ribes Symposium, Zlatibor, Serbia.* For more information contact: Prof. Dr. Mihailo Nikolic, Faculty of Agriculture, University of Belgr, Belgrade, Serbia. Phone: (381)63 801 99 23. Or contact Brankica Tanovic, Pesticide & Environment Research Inst., Belgrade, Serbia. Phone: (381) 11-31-61-773.

TIPS FOR EXTENDING THE NORTHERN NY VEGETABLE AND BERRY SEASONS WORKSHOP

New York State Berry and Vegetable Specialists to Speak at Nov. 13 Workshop - Start-ups Invited to Join Commercial Growers

orthern New York – New York State's Vegetable and Berry Specialists will present information to help people interested in beginning to grow everything from squash to strawberries to join those already involved in commercial fruit and vegetable production at a day-long workshop on November 13 at the Cornell Cooperative Extension Learning Farm in Canton, NY

The Cornell Cooperative Extension Associations of Northern New York have organized the 10am to 3pm program with funding in part from the farmer-driven Northern New York Agricultural Development Program.

The November 13 workshop speakers include New York State Vegetable Specialist Judson Reid, New York State Berry Specialist Cathy Heidenreich, Regional Vegetable and Berry Specialist Laura McDermott, Horticulture Educator/CCE Clinton County Executive Director Amy Ivy, and local and regional growers.

Topics include selecting the right type of production system for your land, time and management resources; irrigation strategies; soil management; and recordkeeping of costs to determine which crops are profitable, budgeting for investing in a high tunnel and projected payback.

Ivy says, "This workshop is focused on how growers in Northern New York can extend their growing, harvesting, and sales seasons through the use of a number of production systems. "Row covers, low tunnels, hoop houses and high tunnels are some of the devices that can extend the Northern New York season well into the fall and help growers get an early start the following spring.

Cost for the 10am to 3pm program, materials and lunch is \$20; registration with CCE St. Lawrence County at 315-379-9192 is required by November 10. For more information, contact Amy Ivy at CCE Clinton County, 518-561-7450.

The farmer-driven Northern New York Agricultural Development Program supports research, technical assistance and outreach for dairy, crop, fruit, vegetable, maple, and biofuel producers in Clinton, Essex, Franklin, Jefferson, Lewis and St. Lawrence counties. Learn more online at www.nnyagdev.org www.nnyagdev.org http://www.nnyagdev.org www.nnyagdev.org http://www.nnyagdev.org www.nnyagdev.org http://www.nnyagdev.org www.nnyagdev.org http://www.nnyagdev.org www.nnyagdev.org www.nnyagdev.org http://www.nnyagdev.org http://www.nnyagdev.org http://www.nnyagdev.org http://www.nnyagdev.org

2011 RASPBERRY & BLACKBERRY CONFERENCE WILL BE IN SAVANNAH

Conference on January 5-7, 2011. This conference includes a tour, two full days of educational sessions on important topics in production and marketing, and invaluable opportunities to talk informally with growers, researchers, marketers, and others in the caneberry industry. Savannah itself is a lovely historic city, often with balmy shirt-sleeve weather in January, that is well worth a visit.



Production topics include Tough Problems and Emerging Issues in Pest Management, Disease Challenges, High Tunnel Berry Culture, Trellising Options & Economics, Weed Control, Soils and Plant Nutrition, Harvesting & Packing, and a workshop on the Fundamentals of Blackberry and Raspberry Production. Marketing/management topics include How to Protect Yourself in the Marketplace, Using Social Media, Diversifying Your Markets, and an extended session on Creating a Sustainable Blackberry Industry.

Speakers include Dr. Marvin Pritts (Cornell), Dr. John Clark (University of Arkansas), Dr. Bob Martin (USDA-ARS, Oregon), Dr. Mary Ann Lila (NC State University), growers from Mexico, Oregon, Maryland, North Carolina, Georgia, and more.



This conference is being held in association with the Southeast Regional Fruit and Vegetable Conference, a large, wellrun conference with a major trade show and tracks of sessions on peaches, blueberries, strawberries, vegetables, organic production, food safety, and more that are also open to those registered for the Raspberry & Blackberry Conference.

Full conference information and registration is now available on the web at www.raspberryblackberry.com or by request to info@raspberryblackberry.com or 919-542-4037.

This conference is the annual meeting of the North American Raspberry & Blackberry Association (NARBA), a continent-wide association with members in more than 35 states, 8 Canadian provinces, and 5 countries. NARBA works to promote the production and marketing of raspberries and blackberries, to provide a unified voice to represent the bramble industry, and to promote blackberries and raspberries to the general public. New members are welcome, and registration for those not currently members of NARBA includes a year's membership in the Association, with a subscription to *The Bramble*, its quarterly newsletter, and other benefits.

BLUEBERRIES HELP FIGHT ARTERY HARDENING, LAB ANIMAL STUDY INDICATES

Marcia Wood, Public Affairs Specialist, USDA Agricultural Research Service, Room 1-2214-C, 5601 Sunnyside Ave., Beltsville, MD 20705-5129

lueberries may help fight atherosclerosis, also known as hardening of the arteries, according to results of a preliminary U.S. Department of Agriculture (USDA)-funded study with laboratory mice. The research provides the first direct evidence that blueberries can help prevent harmful plaques or lesions, symptomatic of atherosclerosis, from increasing in size in arteries.

Principal investigator Xianli Wu, based in Little Rock, Ark., with the USDA Agricultural Research Service (ARS) Arkansas Children's Nutrition Center and with the University of Arkansas for Medical Sciences, led the investigation.



A new ARS-funded study in mice has provided the first direct evidence that blueberries may help fight atherosclerosis, also known as hardening of the arteries.

The findings are reported in the current issue of the Journal of Nutrition.

Atherosclerosis is the leading cause of two forms of cardiovascular disease—heart attacks and strokes. Cardiovascular disease is the number one killer of Americans.

The study compared the size, or area, of atherosclerotic lesions in 30 young laboratory mice. Half of the animals were fed diets spiked with freeze-dried blueberry powder for 20 weeks; the diet of the other mice did not contain the berry powder.

Lesion size, measured at two sites in the aorta (the artery leading from the heart), was 39 and 58 percent less than that of lesions in mice whose diet did not contain blueberry powder.

Earlier studies, conducted elsewhere, have suggested that eating blueberries may help combat cardiovascular disease. But direct evidence of that effect has never been presented previously, according to Wu.

The blueberry-spiked diet contained 1 percent blueberry powder, the equivalent of about a half-cup of fresh blueberries.

All mice in the investigation were deficient in apolipoprotein-E, a trait which makes them highly susceptible to forming atherosclerotic lesions and thus an excellent model for biomedical and nutrition research.

Wu's group wants to determine the mechanism or mechanisms by which blueberries helped control lesion size. For example, by boosting the activity of four antioxidant enzymes, blueberries may have reduced the oxidative stress that is a known risk factor for atherosclerosis.

In follow-up studies, Wu's group wants to determine whether eating blueberries in infancy, childhood and young adulthood would help protect against onset and progression of atherosclerosis in later years. Early prevention may be especially important in light of the nation's epidemic of childhood obesity. Overweight and obesity increase atherosclerosis risk.

ARS, the USDA's principal intramural scientific research agency, operates the Arkansas Children's Nutrition Center in conjunction with the University of Arkansas for Medical Sciences and the Arkansas Children's Hospital, all in Little Rock. The blueberry research is one example of ARS investigations that are designed to help improve children's nutrition and health, a USDA top priority.

NY RECEIVES EXTRA \$430,000 IN CROP INSURANCE ASSISTANCE

USDA Funds will Reduce Farmers' Premiums Up to \$150 per Eligible Policy

eptember 23, 2010. New York State Agriculture Commissioner Patrick Hooker today announced that New York farmers who signed up for an eligible crop insurance policy in 2010 will receive an automatic premium reduction. New York State received an extra \$430,000 from USDA's Risk Management Agency to reduce premiums for eligible crop insurance holders in the State.

"Crop insurance is an essential risk-management tool that can help producers balance the financial risk of rising input costs and volatile crop prices," the Commissioner said. "With the addition of \$430,000 in federal aid, crop insurance is becoming more and more affordable for our producers, allowing them to purchase higher levels of coverage that will ultimately result in better financial protection."

As part of USDA's Risk Management Agency's crop insurance education grants, sixteen states, including New York, received a collective total of \$3.5 million to reduce producer premiums. New York received more than 12 percent of that funding. The federal assistance will reduce premiums by up to \$150 per non-catastrophic, or buy-up, crop insurance policy for eligible New York producers.

The premium reduction will be applied automatically to all eligible 2010 crop insurance policies with reporting deadlines before September 30. If the total producer-paid premium is less than \$150, the amount of premium reduction will be capped at 100 percent of the producer premium due. Producers will receive assistance for each eligible policy they hold, up to \$50,000. Administrative fees will not be covered under this assistance.

For more information on New York's crop insurance program or the premium reductions, call 1-800-554-5401 or visit <u>www.agmkt.state.ny.us/CropInsurance</u>.

NY NASS 2009 DIRECT MARKETING SURVEY HIGHLIGHTS

esults of the 2009 Direct Marketing Survey for New York show there were 7,335 producers selling agricultural products directly to consumers, up from 6,667 in 2000, according to King Whetstone, Director of USDA's National Agricultural Statistics Service, New York Field Office. This was 20 percent of all New York farms. Value of these sales was over \$362 million, 57 percent more than the value in 2000.

Average sales per farm selling products directly to consumers in 2009 were \$49,397, 43 percent above the 2000 average of \$34,530.

Nursery and greenhouse products had the highest value of direct sales, totaling \$153 million compared with \$107 million in 2000. Vegetable direct sales totaled \$52.6 million in 2009, up from \$36.7 million in 2000. Fruit direct sales

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Tree Fruit & Berry Pathology, NYSAES

were third most important at \$51.1 million compared with \$36.7 million in 2000. Meat, poultry, and dairy direct sales in 2009 were \$30.0 million, more than double the 2000 total of \$14.5 million.

These results are from a comprehensive survey of New York farmers who market some or all of their products directly to consumers. This survey was last conducted in 2000, and prior to that in 1987. It is the result of a cooperative effort supported by the USDA, National Agricultural Statistics service New York Field Office and the New York State Department of Agriculture and Markets.

Complete results of the 2009 Direct Marketing Survey are available online at our website: <u>http://www.nass.usda.gov/ny</u>. Please contact Keith Miller or Bill Blackson at 1-800-821-1276 with questions regarding the survey.

SCIENTISTS RELEASE FIRST CULTIVATED 'ŌHELO BERRY FOR HAWAII

<u>Stephanie Yao</u>, Public Affairs Specialist, USDA Agricultural Research Service, Room 1-2212-A, 5601 Sunnyside Ave., Beltsville, MD 20705-5129

he first cultivar of 'ōhelo berry, a popular native Hawaiian fruit, has been released by <u>U.S. Department of Agriculture</u> (USDA) scientists and their university and industry cooperators.

'Ōhelo (*Vaccinium reticulatum* Smith) is a small, native Hawaiian shrub in the cranberry family, commonly found at high elevations on the islands of Maui and Hawaii. As people scour the landscape to harvest this delectable berry for use in jam, jelly and pie filling, they unfortunately disrupt the fragile habitats where this plant grows.

In an effort to reduce damage to the environment and meet consumer demands, horticulturist <u>Francis T.P. Zee</u>, with the USDA <u>Agricultural</u> <u>Research Service</u> (ARS) <u>Pacific Basin Agricultural Research Center</u> (PBARC) in Hilo, Hawaii, is evaluating 'ohelo for small farm production



Ōhelo berry, a popular native Hawaiian fruit. Photo courtesy of Francis T.P. Zee, ARS.

and ornamental use. Zee collaborated with fellow ARS scientists and cooperators at the <u>University of Hawaii at</u> <u>Manoa</u>, <u>Big Island Candies</u> and the <u>Big Island Association of Nurserymen</u>. ARS is the principal intramural scientific research agency of USDA.

Zee and his team selected the offspring of seed-grown plants to create the new cultivar "Kilauea" for berry production. They found 'ōhelo's tiny seeds readily germinated under 20-30 percent shade in well-watered and well-drained potting mixture. Plant hardiness and vigor improved with age, and some seedlings flowered just 10 months after germination, much sooner than the 5 years reported in previous studies. The 16-month-old plants Zee successfully transplanted from the greenhouse to the field produced berries a year later.

Zee also used cuttings and tissue culture to propagate selected 'ōhelo of high ornamental potential. With proper care, young, growing shoots of 'ōhelo can be groomed into vibrant, colorful ornamental potted plants. Since the plant is not seasonal, its readiness for market can be scheduled by trimming and fertilizing. Older potted 'ōhelo plants can be trained into a bonsai and can readily adapt to the office environment.

Zee and PBARC scientists are currently examining the disease and insect problems associated with growing potted 'ōhelo. Full descriptions of Zee's 'ōhelo studies can be found on the University of Hawaii's College of Tropical Agriculture and Human Resources' (CTAHR) website.

EVALUATE ADJUSTED GROSS REVENUE LITE INSURANCE TOOL

The National Center for Appropriate Technology (NCAT) is seeking diversified farmers to assess the usefulness of a federally subsidized whole farm insurance product called Adjusted Gross Revenue Lite (AGR-Lite). NCAT has developed a user-friendly software tool that simplifies access to this relatively new kind of insurance that protects the revenue of the whole farm rather than the specific crops or livestock produced.

This tool is available in CD format from NCAT by calling 1-800-346-9140 and is the culmination of a three-year project supported by the United States Department of Agriculture's Risk Management Agency (RMA). Selected farmer evaluators will be paid for up to \$280 for no more than six hours of work in evaluating the tool.

"One of the difficulties that prevent more farmers from using AGR-Lite is that it is a more complicated application process than standard crop insurance products. Many of the farmers who could use the farm insurance product are often those with smaller or highly diversified farms who do not produce only standard commodity products for which other insurance is readily available," Schahczenski said. "This new whole farm revenue insurance will especially serve the needs of beginning, socially-disadvantaged, specialty, organic and direct market farmers and ranchers. These are the farmers and ranchers NCAT has served for over 30 years."

Because not all farmers have access to high-speed Internet connections, the tool is currently available in CD format. Beginning early next year, it will also be accessible in a web-based format. Besides seeking farmer evaluators, NCAT may be able to provide workshops demonstrating the tool. Further information on being an evaluator of the tool and hosting possible workshops centered on the opportunities for risk management based on AGR-Lite can be obtained by calling Schahczenski at 406-494-4572 or jeffs@ncat.org.

COMMISSIONER AWARDS FEDERAL FUNDS FOR "BUY LOCAL" ADVERTISING

38 Pride of New York Members Receive \$129,212 in Matching Grant Funds

ctober 1, 2010. New York State Agriculture Commissioner Patrick Hooker today awarded \$129,212 in federal funds to 38 recipients of the Pride of New York "Buy Local" Cooperative Advertising Program. This is the second round of the program with funding provided by USDA's Specialty Crop Block Grant Program. These grants are intended to help increase the sales and competitiveness of New York's specialty crops.

"Locally grown, New York State products are in great demand," the Commissioner said, "and our growers do an outstanding job of producing a variety of farm fresh produce and local agriculture products. To help them meet that demand and have their products known, these grants will enable our producers throughout the State to stretch their



advertising dollars in order to direct customers in the right direction – right to our local farm businesses!"

The Pride of New York's "Buy Local" Cooperative Advertising Grant Program provided up to \$5,000 in matching funds to members of the Pride of New York Program. These grants were offered on a first-come, first-served basis to help create and develop promotional messages, purchase media time, print space or signage or pursue other promotional activities for fresh or processed local specialty crop products. The Department received 52 nding to guarant as provided are support as provided provided and provided area of the products.

applications with enough funding to support 38 projects. The awards recipients are attached.

The Pride of New York program is the State's marketing program for food and agricultural products grown or processed in New York State. The program was created in 1996 to help consumers identify fresh, high-quality New York State products where they shop. The Pride of New York also assists farmers and food processors in branding their products by using the Pride of New York emblem, and encourages retailers and restaurants to highlight the New York State products they use and sell by displaying the emblem. To find out more about the Pride of New York Program, call 1-800-554-4501 or visit http://www.prideofny.com.

New York State produces a wide range of specialty crops that include fruits and vegetables, wine, maple syrup, horticulture and nursery crops. Specialty crops generate \$1.39 billion annually in New York and make up one-third of the State's total agricultural receipts. They also rank high nationally in both production and economic value. For example, New York is the second largest state in the nation for apples and pumpkins; third for grapes, cabbage, cauliflower and maple syrup; and fourth for tart cherries, pears, snap beans and onions. A detailed list of commonly recognized specialty crops, as defined by USDA, can be found at www.ams.usda.gov/AMSv1.0/scbgp.

PRIDE OF NEW YORK "BUY LOCAL" COOPERATIVE ADVERTISING PROGRAM

Western New York

Accord Foods, Inc. (Monroe County)	\$5,000.00
Brown's Berry Patch (Orleans County)	\$5,000.00
Childs Blueberries & Raspberries (Cattan	raugus County) \$1,050.00
Maple Glen Sugar House (Cattaraugus C	County) \$1,582.50
Monroe Community College (Monroe Co	ounty) \$1,860.00
Pumpkinville, LLC (Cattaraugus County)	y) \$4,000.00
Singer Farms (Niagara County) \$414.0	00
Village of Fredonia Farmers' Market (Ch	nautaugua County) \$1,040.00
Watt Farms Country Market (Orleans Co	ounty) \$2,000.00

Finger Lakes

Cobblestone Farm Winery and Vineyard	l (Seneca County)	\$5,000.00
Fox Run Vineyards (Yates County)	\$2,350.00	
Horsford Farms (Cayuga County)	\$500.00	
Keuka Lake Coffee Roasters (Cayuga Co	unty) \$5,000.00	
Knapp Winery & Vineyard (Seneca Cour	nty) \$500.00	
Mosher Farms, LLC (Seneca County) \$1	,450.00	
Ontario Orchards (Seneca County)	\$4,000.00	
Pick'n Patch (Ontario County) \$4,300	.00	
Red Jacket Orchards (Ontario County)	\$5,000.00	
Seneca County Chamber of Commerce (Yates County) \$5,000	0.00

Central New York

Reeves Farms (Onondaga County)	\$5,000.00	
Sollectio Landscaping Nursery (Ononda	ga County)	\$5,000.00

North Country

Cornell Cooperative Extension (Lewis County)\$500.00Lewis County Maple Producers Association\$4,250.00Tug Hill Vineyards (Lewis County)\$4,984.00Yellow Barn Winery (Jefferson County)\$1,067.50

Capital District

Rathbun's Maple Sugar House (Washington County) \$3,000.00 Ryan's Farmers Market (Albany County) \$5,000.00 Schenectady Greenmarket (Schenectady County) \$3,050.00 Sheldon Farms (Washington County) \$5,000.00

Hudson Valley

Community Markets (Westchester County)\$5,000.00Harvest Festival at Bethel Woods Center for the
Mountain Valley Preserve (Sullivan County)\$5,000.00\$3,500.00

Pennings Farm Market (Orange County)\$5,000.00Village of Saugerties Farmers' Market (Ulster County)\$2,672.00Warwick Valley Apple Trail (Orange County)\$5,000.00

Metro New York & Long Island

Garden of Eve (Suffolk County) \$1,825.00 Long Island Farm Bureau (Suffolk County) \$5,000.00 Wholesale Greenmarket/Grow NYC (New York County) \$4,317.00

NYCAMH OFFERS FARM SAFETY PROGRAMS

The New York Center for Agricultural Medicine & Health (NYCAMH) provides the following farm safety programs in New York State. "We are pleased to receive another year of funding from the New York State Department of Labor Hazard Abatement Board", says Sharon Scofield – Education & Outreach Supervisor. "This funding allows NYCAMH staff to provide safety training on farms and within the farming community – such as Cornell Cooperative Extension events."

<u>The On-Farm Safety Survey</u> is available to any agricultural operation, including Dairy, Livestock, Equine, Greenhouse, Orchard, Vegetable, and Crop. A safety survey looks at potential hazards around the farmstead, tractors and machinery, and evaluates use of personal protective equipment. The survey takes about 11/2 hours and is geared to the farm owner or manager, but can include others. A checklist is used and a copy will be provided after the survey with suggestions for improvement.

<u>On-Farm Safety Training</u> includes some of the following training topics**: Tractor & machinery, Skidsteer, forklift, payloader, Personal protective equipment, Hazard Communication (Chemical), Safe animal handling, Worker Protection Standard. **Other safety topics presented upon request. Each farm that completes an on-farm safety survey or training receives a certificate of completion and a copy of the training roster. All trainings can also be done in Spanish.

<u>4-H Club - Farm Safety Activity</u> is also available to any 4-H agricultural club with access to any type of agricultural operation. Activities facilitated by a NYCAMH safety trainer include: ** On-farm safety survey or training includes hazard awareness around tractors, machinery, farmstead, shop, livestock including dairy and equine. The Play-it-Safe Farm Safety Challenge Game is a Jeopardy format with topics on tractor & machinery, unsafe pictures, farm emergencies, injuries/fatalities, animals, and PPE. Farm safety training for Tractor/Machinery Operator classes is coordinated by county Cooperative Extension 4-H programs. **Other safety topics presented upon request.

Hazard Communication (Chemical Safety, Animal Handling) & Foodborne Pathogen Training

Quality Milk Production Services is partnering with (NYCAMH) to offer you free safety training in Spanish or English. Hazard Communication training covers chemical labels, Material Safety Data Sheets (MSDS), and personal protective equipment (PPE). Animal Handling training covers medicines, needlestick injuries, cattle restraint, bull dangers, and personal hygiene.

Foodborne Pathogens training is designed to teach dairy farm workers how they can help reduce the spread of foodborne pathogens on the farm. For more information about these trainings, please call or email: Tonya Van Slyke at Quality Milk Production Services 585-243-1780 or tmv5@cornell.edu.

Farm Safety Programs provided by NYCAMH can be scheduled by contacting:

- > Anna Meyerhoff, Bilingual Farm Safety Educator at 800-343-7527 or <u>ameyerhoff@nycamh.com</u>, or
- ▶ Jim Carrabba, Agricultural Safety Specialist at 800-343-7527 or jcarrabba@nycamh.com, or
- Sharon Scofield, Education/Outreach Supervisor at 800-343-7527 or sscofield@nycamh.com.

A program of Bassett Healthcare Network, NYCAMH promotes safe and healthy farming.



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30th North American Strawberry Growers Association Annual Meeting

in conjunction with the

7th North American Strawberry Symposium

February 8-11, 2011 Tampa, Florida

"Sustaining Strawberry Production through Science"

Speakers from 14 countries as well as 12 States and Provinces. *Plus!* Special Guest Speaker and Marketing Expert "Bill McCurry"

This very special, combined meeting will be held at the Doubletree Hotel, Tampa Westshore in Tampa, Florida on February 8–11, 2011. There will be a complimentary Post-Conference tour of the Plant City growing area, and the University of Florida Balm Research Center.

February 8th will lead into the conference with 4 afternoon workshops that will focus on Water and Nutritional Management, Nursery propagation and production physiology, Molecular biology and biotechnology (Diploid strawberry sequencing workshop) and Organic Production. These will be casual workshops with lots of open discussion. The evening will feature a welcome reception with a special guest speaker.

On **February 9th** we will have a general session that will feature talks that will be of interest to both growers and researchers and end with Bill McCurry discussing marketing.

Concurrent sessions on **February 10th** will feature NASS scientific presentations and NASGA grower profiles and marketing sessions.

The conference will conclude with our field tour on Friday February 11th

For more information or to register visit <u>www.nasga.org</u> or contact Kevin Schooley at 613-258-4587 <u>info@nasga.org</u>



730 Warren Road Ithaca, NY 14850 1-800-344-2697 x 2172 <u>www.dairyone.com</u>

Agro-One UPDATE

October 1, 2010 Janet B. Fallon, CCA, Dairy One Forage and Soils Lab janet.fallon@dairyone.com, Cell phone1-607-227-3297

Agro-One UPDATE

Most of you have heard that Agro-One will now offer a Morgan soil test for commercial field crop, vegetable, fruit and turf soil samples. The Morgan test is the official extraction procedure on which Cornell Nutrient Guidelines for commercial crops are based. We will continue to utilize a Modified Morgan extraction (pending final approval), for Home, Garden and Landscape samples. The folks at Dairy One would like to thank all of you for your patience during the transition process.

CNAL UPDATE

Dr. Gregory Peck is the new Interim Director of the Cornell Nutrient Analysis Lab (CNAL). He serves as the liaison between Agro-One and Cornell and oversees updates to the Cornell Nutrient Recommendations engine and the day to day operations of the CNAL lab.

UPDATED FORMS

The updated Agro-One sample submission forms went on line at <u>www.dairyone.com</u> on September 14. The updated forms are attached to this list serve as well so extension educators and other customers can easily download and print them off as needed.

CCE County offices must not modify information or pricing on the Agro-One forms. Shipping and handling fees, etc. should be handled as a separate transaction with the customer.

UPDATED REPORTS

Reports for Form A, F, V & T samples have been updated. They are much simpler to read and interpret. We still have a few more improvements to make. We had some "gremlins" in the system during the switch to the new report format. As a result, some "weird" reports went out e.g. missing bar graphs. Please contact us if you received a report that is clearly missing the bar graphs or has some other formatting issues so we can issue a new and correctly formatted report.

Reports for Form H samples are still in the works but they will be quite similar to the new Form A, F, V & T reports. Our goal is to make it more user friendly for the CCE educator and the homeowner.

NEW PRICING

Please note; there is a price increase across the board as a result of the additional expenses associated with the Morgan analysis (new equipment, additional labor, more lab space required, etc.)

Commercial samples (Forms A, F, V, & T) will cost \$16.00 per sample. Form H - Home, Garden and Landscape samples will now cost \$12 per sample for the routine package or \$17 per sample if the basic package plus soluble salts is requested.

These prices supersede pricing on any previous forms. You can use the old forms but you will be billed for the added cost if you do not submit the correct amount with the sample(s). If you under-pay, your report will have a message to "please check our current prices and send an additional \$6.00 with your next sample."

Customers paying by check should make checks payable to Dairy One.

If the county CCE office collects payment from a customer, a check payable to Dairy One or the CCE Dairy One account number must accompany the sample or results will not be released.

PRE-PAID BAGS

We will continue to honor the pre-paid CNAL bags until supplies are used up.

SAMPLE BOXES

Sample boxes can be ordered by emailing your order to <u>supply@dairyone.com</u> Include the number of Agro-One sample boxes needed (there are about 250 per carton), your account number and/or address & name of person to ship them to. We will accept Agro-One samples in Dairy One sample boxes but would appreciate it if you switch to Agro-One boxes when your supply of Dairy One boxes is depleted.

WHO DO YOU CALL

Call Dairy One at 1-800-344-2697 x 2172 if you have questions about your account, results or ordering supplies.

Questions about nutrient guidelines, special tests or troubleshooting a crop performance problem, should go to the appropriate Cornell commodity expert:

Special Tests – CNAL Interim Director, Gregory Peck, <u>gmp32@cornell.edu</u>, 1-607-255-1722 Field Crops – Quirine Ketterings, <u>gmk2@cornell.edu</u>, 1-607-255-3061 Small Fruits – Marvin Pritts, <u>mpp3@cornell.edu</u>, 1-607-255-1778 Tree Fruits - Lailiang Cheng, <u>lc89@cornell.edu</u>, 1-607-255-1179 Turf – Marty Petrovic, <u>amp4@cornell.edu</u>, 1-607-255-1796 Vegetables – Steve Reiners, <u>sr43@cornell.edu</u>, 1-315-787-2311 Home, garden & landscape - Lori Bushway, <u>ljb7@cornell.edu</u>, 1-607-255-5918 Soil Health Lab – Robert Schindelbeck <u>rrs3@cornell.edu</u>, 1-607-255-1706 See the complete list at <u>http://www.dairyone.com/AgroOne/Agro_One_Contacts.pdf</u>

Jbf 100110

OVERVIEW OF SMALL FRUIT DISEASES DURING THE 2010 GROWING SEASON

Annemiek Schilder, Department of Plant Pathology, Michigan State University

The 2010 season was challenging for fruit growers, including an early, warm spring punctuated by spring freezes. In some locations, hail also damaged crops. Precipitation varied significantly by location so it was difficult to make blanket recommendations for the growing region. In some locations, blueberry fields were too wet to enter and apply fungicides in a timely manner. Frequent rains also resulted less then optimal fungicide timing and wash-off of fungicides. Overall it was a very warm and humid growing season, with droughty conditions in July and August. The harvest of all small fruit crops started significantly earlier than previous years. Overall, these presented challenging conditions for plant growth and disease control.

Blueberries

Generally, there were higher numbers of overwintered mummy berries than in 2009. The germination rate was higher than in previous years (up to 40%) in wet sites. However, in dry locations, germination rates were low. In early April, 2010, mummies were found with small apothecia, about two weeks ahead compared to 2009, due to the relatively warm soil temperatures and sufficient moisture. Overall, infection risk in early April was deemed fairly low because most apothecia were less than 1-2 mm in diameter and 2 mm is the minimum size for release of ascospores. However, in the second week of April 2010, significantly more mummies with apothecia were detected and apothecia were larger, increasing infection risk. Blueberry shoots were also at a susceptible stage in their development. In the last two weeks of April, dry weather led to drying out of mummy berry apothecia. The first shoot strikes were seen during the last week of April and increased until the last week in May. Conditions during bloom were conducive to infection, however, rapid plant development and low bee numbers in some locations due to early bloom seem to have limited fruit infections. The first mummified berries were seen at the end of June and increased into July but started dropping off the bushes early. Overall, the number of shoot strikes was similar or somewhat higher than last year, whereas the number of mummified berries was lower than last year.

Blossom and twig blight symptoms showed up at the end of May and were mostly due to Phomopsis infection during wet conditions at bloom. However, levels stayed low to moderate and did not increase much, while twig blight lesions did increase in length over time.

Some Pseudomonas (bacterial) twig blight was observed on 'Elliott' plants. Pseudomonas blight is favored by freezing temperatures and moisture during bloom, and looks similar to Phomopsis blight except that the color of the necrotic tissue is darker, sometimes almost black. Phomopsis canker became quite apparent in many blueberry fields later in the season during and after the harvest, due to stress on the canes. Those infections are often the result of damage to the canes such as bark being scraped off the canes by mechanical harvesting the previous year.

Anthracnose canker, caused by *Colletotrichum acutatum* was observed on canes in some fields, mostly cv. Jersey. Anthracnose lesions are more sharply delineated than Phomopsis lesions and often but not always centered on leaf scars and have small blister-like fruiting structures in expanding rings around the center of the lesion. Due to warm, humid conditions, anthracnose fruit rot incidence was high this year and affected fruit quality.

Botrytis fruit rot was more common than Alternaria fruit rot as a post-harvest disease. Botrytis is characterized by fluffy white to tan-gray mycelium and tan to gray powdery spore masses. Some frost damage was also observed on fruit as well as leaves (blistering on lower leaf surface along veins). Furthermore, red spots on the upper leaf surface and edema (tiny watersoaked spots on lower leaf surface) were observed on leaves in many locations and were probably caused by spray injury or environmental conditions.

Powdery mildew was common later in the season due to warm humid conditions and was characterized by yellow to reddish blotches and mild wrinkling of leaves. Leaf rust was also observed in multiple locations; this disease if favored by warm, wet weather in mid summer.

This year, Armillaria root rot was diagnosed in several relatively young fields that were planted in areas cleared of mixed forest containing oak trees. Symptoms affected scattered bushes throughout the planting with stunted growth, leaf discoloration, root and crown rot, white fungal mats under bark, mushroom-like smell of the crown, and black,

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root-like strands (rhizomorphs) on the crown. In general, virus symptoms were present but not as obvious as in previous years. To date, a total of 28,650 leaf samples have been tested from 644 blueberry fields on 133 Michigan farms. The survey resulted in seven detections of blueberry scorch in three different areas of the state and no detections of blueberry shock.

Strawberries, Brambles, and Saskatoonberries

Wet conditions in late spring and early summer favored foliar and cane diseases in brambles, and particularly Botrytis gray mold on the fruit. Spur blight started to appear in early June and increased rapidly for 4-6 weeks. Leaf spot did not become common until later in the season. In tunnel production, powdery mildew and even late leaf rust became problems later in the season. Botrytis cane blight can also be a problem in greenhouses. I have noticed that thornless blackberries suffer from various cane blights, which seem to be secondary to winter injury.

In strawberries, foliar disease pressure was moderate, but wet conditions during fruit ripening did lead to fairly high leather rot (*Phytophthora cactorum*) pressure. In one case, poor establishment in a young strawberry field was related to black root rot caused by *Cylindrocarpon, Pythium*, and *Rhizoctonia* spp. In another case, poor growth and stunting, which appeared like black root rot symptoms was caused by cyclamen mite.

In a saskatoonberry (Juneberry) field in northern Michigan, leaf rust was a problem in 2009 and was identified as *Gymnosporangium nelsonii*. This fungus overwinters on junipers. A disease control program using sterol inhibitor fungicides effectively controlled this disease this year. Entomosporium leaf spot, caused by *Entomosporium mespili* showed up in August and could lead to premature defoliation.

(Reprinted with permission from: <u>MSU Fruit Crop Advisory Team Alert Newsletter</u>, September 23, 2010.)



DAY NEUTRAL STRAWBERRY PRODUCTION AT FRAISEBEC IN QUEBEC

Laura McDermott, Regional Specialist, Capital District Vegetable and Small Fruit Program, CCE Washington County, Hudson Falls, NY

n the Capital District region of NY, many strawberry growers have been experimenting with growing strawberries on plastic mulch. These trials have included June bearers grown in perennial systems on traditional black or white coated plastic mulch, or on biodegradable mulch. Day-neutral varieties have taken the main stage as our retail markets are very receptive to local strawberries throughout the season. Not all attempts at producing strawberries on plastic have been successful. We struggle with fertility issues that may affect quality, and the best choice of varieties and production systems remains a question. This summer the North American Strawberry Growers (NASGA) summer tour focused primarily on large Quebec farms that were growing strawberries on plastic, which was a real motivator to attend.

As a first time attendee, I was impressed with the entire event which was well attended by growers from across the U.S., Canada and even the Dominican Republic! The tours were well organized and we were treated to lovely catered lunches with live musicians, but most importantly, the tours were chock full of helpful information.

Our first farm stop was at FraiseBec Inc. in Sainte-Anne-des-Plaines, the largest strawberry grower in Canada. FraiseBec was started by Yvon Charbonneau 32 years ago and is now expertly managed by Simon and Isabelle Charbonneau. This farm grows more than 150A of Day Neutral and June bearing strawberries plus over 22 acres of field and high tunnel fall raspberries. They supply fresh berries to wholesale and retail markets throughout Quebec from June through October.

FraiseBec plants part of the day-neutral strawberry crop in the spring as dormant crowns, and harvests fruit from late July to frost from those plants. In order to encourage earlier spring production, they began saving some of this planting and fruited them the following spring, beginning in June to the frost. Unfortunately those fruit were always smaller. To keep fruit size up but still capture earliness, they began fall planting plugs. FraiseBec plants 1 million plug transplants each year. These plugs are supplied by Novafruit, a large nursery that we visited later in the tour. The fall planting strategy can be risky because strawberries that are not well established are even more prone to frost injury. To encourage snow accumulation, which they rely on for insulation, they plant hedgerow windbreaks or use fencing. This two-pronged strategy allows them to have a consistent supply of berries for the longest possible season.

The entire field is fumigated prior to being fitted with raised beds. FraiseBec attempts to prepare all of the beds in the late summer or fall, those for the August planting as well as the May planting which lets them plant as early as possible in the spring. Occasionally the plastic moves or is damaged during the winter, and sometimes fall weather doesn't allow for field fitting but for the most part fall field prep is a time saver.

The day neutral strawberries are grown on 4' wide, 10" high raised beds covered with traditional agricultural black plastic mulch. Two irrigation driplines are placed under the plastic, each between 2 of the rows. The plants, all 'Seascape', were being planted when we were there in mid-August. A hole puncher went through the field in front of a battalion of workers that placed the plants in 4 rows on the beds, 16" between the rows and 8" between the plants within the rows, resulting in 20,000 plants/acre. Pre- emergent applications of Chateau and Sinbar were made only in the 2.5' wide alley between the beds to help avoid any potential injury to the transplants, which might be more of a problem in a summer planting.

The first few weeks after transplanting are the most stressful for the newly planted plugs. August daytime temperatures get quite warm, especially on the plastic, so the plants are watered overhead 2x/day for the first week to prevent desiccation and burning. Trickle irrigation requirements are determined by the constant monitoring using tensiometers. Runners are removed weekly until frost, with the goal being to remove all runners. Row covers have been used to encourage fall vegetative growth, hasten spring production and provide a measure of frost protection.

The day-neutral strawberry is a heavy feeder because it is fruiting throughout the season while also growing vegetatively. The rate of nitrogen suggested is variable according to the source that you consult, ranging from 60-80 lbs of actual N/A for the season to 15# N/A every week! When asked about their nutrient management plan, Isabelle Charbonneau said the farm constantly monitors leaf nutrient levels. When the foliar analysis indicates, the plants are fed through the trickle, rates and types of nutrients are adjusted as required by the foliar analysis.

According to an Ontario Ministry of Agriculture fact sheet on dayneutral production, (http://www.omafra.gov.on.ca/english/crops/facts/89-099.htm#nutri), these berries benefit from a continuous supply of nitrogen and potassium. Additional phosphorus is not necessary provided an adequate supply has been incorporated before planting.

A large amount of fast-acting nitrogen fertilizer applied at any one time to dayneutrals can soften fruit and cause excessive vegetative growth. There are 3 ways to avoid this yet supply adequate nitrogen during the season. The first is to apply 30 lb/A of nitrogen at monthly intervals throughout the growing season. Be careful not to allow the fertilizer to accumulate on the leaves, especially if they are wet. The second way is to use a slow-release fertilizer at planting. The third option is to apply 5 to 6 lbs/A of nitrogen through the drip irrigation system every week. Calcium nitrate is the preferred source of nitrogen early in the season, but urea can be substituted when temperatures warm.

On soils that are low in potassium, such as sandy soils, supplement the preplant potassium with 10 lb/A of K_2O at monthly intervals or 2 lb/A at weekly intervals through the drip irrigation system during the growing season. Dayneutrals tend to be heavy consumers of boron because of their large commitment to reproduction. Monitor leaves occasionally to ensure that boron levels do not fall below 30 ppm. An application of 2 lb/A of solubor may be

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required in midsummer if boron levels are too low. The phosphorus/zinc ratio in the leaves should remain below 140, and the zinc level above 20 ppm. Because phosphorus hinders zinc uptake, balanced fertilizers containing phosphorus are not recommended if the soil has been amended properly before planting.

Pest problems are limited primarily to tarnished plant bugs and the occasional lygus bug and of course spider mites, powdery mildew and grey mold. The farm relies on Assail for TPB control and tries to use all other pesticides only if pest levels threaten to become unmanageable. Air assisted sprayers help guarantee good coverage minimizing the number of applications.

Harvest usually begins in early June. Pickers visit plants every 2 days while they are bearing. This intensive schedule requires a huge amount of labor, provided by 150 local workers and 150 foreign workers. Worker productivity is measured by using a bar code system that requires each picker to swipe their corresponding code as they drop off their flats. FraiseBec expects 2-3 lbs of fruit per plant or 25000 lbs/acre during the 5 month harvest window.

Without being told, a casual observer knows that FraiseBec is a leader not only in the production of berries, but also in marketing. They have beautifully designed billboards everywhere and have recently invested in television advertisements and have trademarked their logo. These efforts are in response to California berries that are undercutting their prices. They are committed to creating demand for their local, high-quality product. FraiseBec sells to supermarkets in the province of Quebec and in other Canadian provinces. They are an important vendor at the wholesale Marché Central (Central Market) in Montreal.

The commitment to high quality berry production was the unifying thread that ran through the entire Quebec tour. Dayneutral strawberries are a VERY important part of that commitment. Despite our very different market structure, NY growers might be able to expand our local strawberry markets by utilizing some of our northern neighbors' expertise.

For more information about growing strawberries on plastic mulch, please visit the following websites:

http://noursefarms.com/CommercialGrowers/Plasticulture.aspx

www.smallfruits.org/SmallFruitsRegGuide/Guides/2005culturalguidepart1bs1.pdf

www.agrireseau.qc.ca/petitsfruits/documents/quebec-poling.pdf

Additionally, Dr. Barclay poling of NC State Nniversity is holding an intensive workshop on Monday, November 8th as part of the SE Strawberry Expo being held in Virginia Beach. This workshop is entitled **Strawberry Plasticulture for Northern Growers and Higher Elevations**. For registration information see http://www.ncstrawberry.org/ExpoPage.cfm.

Editor's note: To view more highlights of the 2010 NASGA summer tour go to: <u>http://www.nasga.org/summertour/summer-tour-2010-highlights.htm</u>

Day Neutral Strawberry Production, Fraisebec, Quebec, Canada (Photos by C. Heidenreich)



Day neutral strawberry beds prepared for planting at Fraisebec, Quebec, Canada



Trays of plug plants laid out ready for planting



Close-up of plug plants in trays



Newly planted plug plants, August 2010



Completed planting, August 2010



Day neutral strawberry field under harvest, August 2010



Plug plants for fall planting produced by Novafruit Nursery, Quebec



Marché Central, Quebec, Canada

WEATHER NOTES (Courtesy NY NASS)

Week ending September 19th: High pressure dominated the weather across the state during much of the week. A cold front moved from west to east across the state late Tuesday into early Wednesday preceded and accompanied by isolated to scattered showers and thunderstorms mainly across central and western portions of the state. High pressure built across the state in the wake of this front from late Wednesday into Saturday. Temperatures generally averaged below normal during the period. However, a brief period of above normal temperatures occurred ahead of the cold front on Tuesday and lingered into Wednesday across southeast portions of the state. Precipitation was generally below normal across the state for the week. However, isolated rainfall amounts of one half inch to one inch occurred with isolated thunderstorms along and ahead of the cold front across western New York. In addition, lake effect rain showers affected portions of northern and western New York late Wednesday through Friday as the cooler air crossed the relatively warmer waters of Lake Erie and Lake Ontario.

Week ending September 26th: A weak cold front on Sunday brought light rain showers to western New York dissipating as it moved eastward across central New York. This was followed by high pressure on Monday and Tuesday before another cold front slowly moved through New York on Wednesday. This front produced some showers and thunderstorms late Wednesday especially for areas in southern New York. High pressure once again crested over the northeast briefly on Thursday, sliding off the Atlantic Coast Friday which allowed for southwest winds to usher in abnormally warm temperatures. Friday night another cold front moved through the area producing little if any rain over New York. Cooler, less humid air filtered in behind the front on Saturday with gusty northwest winds. Temperatures averaged below normal with below normal temperatures for the terrain early in the week as areas of the Adirondacks received frost and freeze conditions Monday night into Tuesday morning. Late in the week temperatures increased to above normal with maximum temperatures a good 15 to 20 degrees above normal on Friday. Precipitation generally averaged below normal with the exception in western portions of the state.

Week ending October 3rd: The week started off dry with weak high pressure in control on Sunday resulting in dry conditions along with slightly above normal temperatures. A low pressure system lifted north from the southeast states on Monday into the Great Lakes region Tuesday morning bringing widespread rainfall to the state with most areas receiving a half inch to an inch of rain. High pressure then built in for later Tuesday into Wednesday bringing dry and very mild weather to the state with many areas averaging more than 10 degrees above normal. Thursday and Friday saw a low pressure system move up the east coast which brought tropical like rain to most of the state as moisture from the Atlantic Ocean and the remnants of Tropical Storm Nicole were drawn into the system. Many areas in the eastern half of the state received flooding rains from this system with rainfall amounts of 4 to 8 inches reported at many locations. Temperatures continued to be very mild on Thursday and started to cool down on Friday. High pressure built into the state on Saturday with cool, dry and windy conditions for much of the state. Although low pressure moving into the eastern Great Lakes brought some rain to far western portions of the state Saturday evening. Temperatures averaged well above normal for the week. Precipitation for the week was also well above normal in most areas except for far western New York where precipitation for the week was near normal to slightly above normal as this area received much less rainfall on Thursday into Friday.

Week ending October 10th: The week started with a developing upper level low pressure system across the northern Appalachians and a surface low off the Mid-Atlantic coast Sunday. This combination of systems brought widespread rainfall and below normal temperatures to much of the state Monday into Tuesday. As the surface low moved northward along the northern Mid-Atlantic coast into eastern New England, additional rainfall fell much of central and northern New York State Wednesday before gradually tapering to showers on Thursday. By Friday, weak high pressure built east from the Ohio Valley region bringing generally clear skies and more seasonable temperatures. A weak cold front then settled southward across the state late Friday night into early Saturday, accompanied mainly by some clouds. For this week, temperatures averaged below seasonal levels across western portions of the state and near to above normal across eastern portions of the state. Precipitation generally averaged above normal.

Questions or comments about the New York Berry News?

Ms. Cathy Heidenreich, NYSAES Cornell, 630 W. North Street, Geneva, NY 14456 Phone: 315-787-2367 Email: mcm4@cornell.edu

Editor's Note: We are happy to have you reprint from the NYBN. Please cite the source when reprinting. In addition, we request you send a courtesy <u>E-mail</u> indicating NYBN volume, issue, and title, and reference citation for the reprint. Thank you.

Check out the NYSAES Tree Fruit and Berry Pathology web site at: <u>www.nysaes.cornell.edu/pp/extension/tfabp</u> *Cornell University provides equal program and employment opportunity.

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	Temperature			Grov Day	ving De s (<i>Base</i>	gree 50)	Precipitation (inches)				
	High	Low	Avg	DFN ¹	Week	YTD ²	DFN	Week	DFN	YTD	DFN
Hudson Valley											
Albany	87	44	65	2	103	2791	552	0.09	-0.61	12.49	-5.43
Glens Falls	84	39	61	0	80	2364	410	0.14	-0.62	13.79	-3.89
Poughkeepsie	87	44	66	1	110	2933	581	0.02	-0.82	13.81	-6.80
Mohawk Valley											
Utica	80	45	57	-2	49	1877	342	0.88	-0.45	25.03	0.23
Champlain Valley											
Plattsburgh	80	44	61	-1	78	2306	326	0.19	-0.59	17.29	-0.01
St. Lawrence Valle	y										
Canton	82	42	59	-2	67	2278	498	0.81	-0.12	19.64	1.35
Massena	83	43	62	3	87	2391	525	1.45	0.61	19.21	2.51
Great Lakes											
Buffalo	89	47	64	-1	98	2651	498	1.05	0.19	19.17	0.85
Colden	85	43	58	-3	59	2183	432	0.97	-0.15	18.57	-2.55
Niagara Falls	88	45	64	0	96	2725	566	0.34	-0.57	15.85	-1.94
Rochester	89	45	63	-2	91	2673	591	0.39	-0.34	18.93	3.21
Watertown	86	40	63	2	90	2391	576	0.31	-0.48	16.04	1.54
Central Lakes											
Dansville	86	43	59	-5	66	2552	457	0.60	-0.24	20.63	3.44
Geneva	80	50	61	-3	81	2553	475	0.44	-0.33	21.19	4.20
Honeoye	88	42	61	-4	82	2511	337	1.00	0.23	22.33	5.48
Ithaca	87	43	61	-2	76	2391	510	0.34	-0.50	16.11	-2.21
Penn Yan	87	47	63	-1	91	2670	592	0.31	-0.46	17.90	0.91
Syracuse	88	47	64	0	97	2773	664	0.44	-0.47	21.45	2.19
Warsaw	82	44	58	-3	54	2136	519	0.62	-0.36	22.96	2.85
Western Plateau											
Alfred	86	43	59	-2	64	2309	714	0.61	-0.23	21.44	2.38
Elmira	90	38	62	-2	84	2535	548	0.16	-0.59	16.61	-0.71
Franklinville	83	41	57	-3	47	2017	553	1.2/	0.30	21.34	1.02
Sinclairville	85	43	59	-2	65	2298	649	0.74	-0.38	21.51	-1.22
Eastern Plateau											
Binghamton	83	47	62	0	82	2520	593	0.07	-0.75	16.82	-1.50
Cobleskill	83	45	60	-2	74	2269	476	0.08	-0.83	19.36	-0.31
Morrisville	80	44	58	-3	59	2186	479	1.09	0.15	23.46	3.86
Norwich	85	44	60	-2	71	2204	409	0.22	-0.69	19.30	-0.20
Oneonta	85	44	60	2	75	2318	667	0.30	-0.54	21.38	0.32
Coastal											
Bridgehampton	82	50	68	2	125	2892	683	0.19	-0.65	11.63	-7.64
New York	90	62	73	3	161	3826	887	0.00	-0.84	12.00	-8.44

NY NASS WEATHER REPORTS OF TEMPERATURES AND PRECIPITATION THROUGHOUT NEW YORK STATE FOR WEEK ENDING SUNDAY 8:00 AM, September 19th, 2010

	Temperature				Grov Day	ving De s (<i>Base</i>	gree 50)	Precipitation (inches)			
	High	Low	Avg	DFN ¹	Week	YTD ²	DFN	Week	DFN	YTD	DFN
Hudson Valley											
Albany	86	39	65	7	106	2971	591	0.01	-0.63	12.75	-6.51
Glens Falls	85	32	59	4	69	2478	412	0.03	-0.67	14.61	-4.47
Poughkeepsie	87	39	67	8	119	3128	620	0.18	-0.59	14.26	-7.90
Mohawk Valley											
Utica	82	40	57	4	52	1945	332	0.08	-1.15	26.94	-0.38
Champlain Valley											
Plattsburgh	81	36	60	4	70	2422	329	0.37	-0.28	19.41	0.75
St. Lawrence Valley											
Canton	84	37	57	2	49	2356	474	0.50	-0.35	21.58	1.53
Massena	87	36	60	5	71	2509	544	0.58	-0.19	21.03	2.72
Great Lakes											
Buffalo	88	44	65	6	104	2817	513	0.31	-0.46	19.94	0.04
Colden	86	38	59	3	65	2289	423	0.20	-0.86	19.44	-3.86
Niagara Falls	88	42	64	5	98	2887	579	0.25	-0.55	16.72	-2.74
Rochester	89	43	63	4	95	2826	592	0.25	-0.39	20.07	3.01
Watertown	88	37	61	5	78	2519	589	0.12	-0.59	17.66	1.68
Central Lakes											
Dansville	91	42	65	7	106	2703	462	0.11	-0.65	21.66	2.92
Geneva	88	42	60	2	73	2672	452	0.16	-0.57	22.39	3.90
Honeoye	89	42	60	0	73	2631	298	0.11	-0.59	23.50	5.21
Ithaca	89	35	60	4	73	2507	502	0.02	-0.79	16.99	-2.98
Penn Yan	90	43	63	6	96	2824	604	0.04	-0.69	18.86	0.37
Syracuse	90	42	64	5	98	2931	675	0.08	-0.79	23.41	1.37
Warsaw	84	41	59	4	62	2228	514	0.24	-0.66	24.06	2.10
Western Plateau											
Alfred	87	39	61	6	80	2434	744	0.15	-0.66	22.28	1.57
Elmira	92	34	63	6	93	2676	559	0.00	-0.70	17.08	-1.67
Franklinville	84	38	60	6	71	2119	567	0.21	-0.70	23.04	0.88
Sinclairville	86	41	62	7	85	2428	673	0.56	-0.50	23.40	-1.51
Eastern Plateau											
Binghamton	88	38	63	7	95	2658	611	0.02	-0.75	17.19	-2.67
Cobleskill	86	37	61	5	77	2387	482	0.06	-0.78	19.92	-1.49
Morrisville	83	38	57	2	54	2262	450	0.04	-0.87	24.30	2.83
Norwich	90	37	61	5	81	2320	413	0.00	-0.85	20.26	-1.00
Oneonta	86	37	61	7	81	2439	693	0.00	-0.83	22.16	-0.57
Coastal											
Bridgehampton	81	44	67	6	122	3091	700	0.00	-0.77	13.90	-6.95
New York	90	59	74	9	169	4122	943	0.20	-0.57	12.78	-9.21

NY NASS WEATHER REPORTS OF TEMPERATURES AND PRECIPITATION THROUGHOUT NEW YORK STATE FOR WEEK ENDING SUNDAY 8:00am, September 26th, 2010

	Temperature				Grov Day	ving Deg s (<i>Base</i>	gree 50)	Precipitation (inches)			
	High	Low	Avg	DFN ¹	Week	YTD ²	DFN	Week	DFN	YTD	DFN
Hudson Valley											
Albany	78	40	62	7	86	3057	629	6.09	5.46	18.84	-1.05
Glens Falls	76	37	60	7	69	2547	445	5.54	4.88	20.15	0.41
Poughkeepsie	76	41	63	6	92	3220	658	4.61	3.90	18.87	-4.00
Mohawk Valley											
Utica	72	35	54	3	36	1981	343	5.42	4.31	32.36	3.93
Champlain Valley											
Plattsburgh	78	35	58	5	59	2481	352	3.66	3.04	23.07	3.79
St. Lawrence Valley	V										
Canton	75	34	66	3	44	2400	486	4.58	3.79	26.16	5.32
Massena	74	35	57	5	55	2564	567	4.43	3.72	25.46	6.44
Great Lakes											
Buffalo	72	40	56	-1	46	2863	505	1.36	0.66	21.30	0.70
Colden	73	36	53	-2	31	2320	415	2.15	1.20	21.59	-2.66
Niagara Falls	72	39	57	-1	48	2935	573	0.95	0.23	17.67	-2.51
Rochester	77	41	58	2	55	2881	592	1.74	1.15	21.81	4.16
Watertown	77	36	58	4	57	2576	607	4.06	3.40	21.72	5.08
Central Lakes											
Dansville	77	39	58	2	55	2758	465	2.39	1.70	24.05	4.62
Geneva	78	44	58	2	54	2726	456	4.03	3.33	26.42	7.23
Honeoye	76	40	56	-2	46	2677	286	2.50	1.80	26.00	7.01
Ithaca	77	33	57	3	54	2561	513	4.83	4.06	21.82	1.08
Penn Yan	78	40	58	3	57	2881	611	3.64	2.94	22.50	3.31
Syracuse	79	43	59	3	64	2995	687	3.99	3.19	26.40	4.56
Warsaw	70	38	52	-2	21	2249	503	2.61	1.78	26.67	3.88
Western Plateau											
Alfred	72	38	55	3	38	2472	750	3.26	2.50	25.54	4.07
Elmira	78	35	59	5	63	2739	577	4.19	3.51	21.27	1.84
Franklinville	69	35	52	0	27	2146	564	1.70	0.83	24.74	1.71
Sinclairville	68	39	54	1	33	2461	670	2.34	1.34	25.74	-0.17
Eastern Plateau											
Binghamton	77	39	59	5	62	2720	632	5.42	4.71	22.61	2.04
Cobleskill	74	34	58	5	61	2448	505	5.33	4.55	25.25	3.06
Morrisville	74	37	56	3	45	2307	461	4.61	3.75	28.91	6.58
Norwich	76	36	58	5	55	2375	432	4.17	3.38	24.43	2.38
Oneonta	74	37	58	6	59	2498	720	5.42	4.65	27.58	4.08
Coastal											
Bridgehampton	79	48	68	9	128	3219	760	2.42	1.66	16.32	-5.29
New York	80	52	69	7	134	4256	985	4.22	3.52	17.00	-5.69

NY NASS WEATHER REPORTS OF TEMPERATURES AND PRECIPITATION THROUGHOUT NEW YORK STATE FOR WEEK ENDING SUNDAY 8:00am, October 3rd, 2010

	Temperature				Grov Day	ving De s (<i>Base</i>	gree 50)	Precipitation (inches)			
	High	Low	Avg	DFN ¹	Week	YTD ²	DFN	Week	DFN	YTD	DFN
Hudson Valley											
Albany	71	34	55	2	35	3092	630	1.76	1.13	20.60	0.08
Glens Falls	71	29	53	3	26	2573	447	1.14	0.51	21.29	0.92
Poughkeepsie	74	32	56	2	40	3260	659	0.53	-0.17	19.40	-4.17
Mohawk Valley											
Utica	66	32	48	-1	6	1987	332	2.44	1.44	34.80	5.37
Champlain Valley											
Plattsburgh	69	32	51	0	23	2504	351	0.88	0.32	23.95	4.11
St. Lawrence Valle	V										
Canton	65	32	49	-1	12	2412	475	1.78	1.02	27.94	6.34
Massena	67	33	51	2	23	2587	567	1.80	1.17	27.26	7.61
Great Lakes											
Buffalo	67	36	52	-3	21	2884	486	0.87	0.19	22.17	0.89
Colden	66	34	49	-4	9	2329	395	1.01	0.16	22.60	-2.50
Niagara Falls	70	33	52	-3	23	2958	555	0.96	0.33	18.63	-2.18
Rochester	69	36	53	-2	24	2905	576	1.67	1.11	23.48	5.27
Watertown	65	31	51	-1	17	2593	596	1.60	0.97	23.32	6.05
Central Lakes											
Dansville	73	34	52	-2	20	2778	446	1.80	1.17	25.85	5.79
Geneva	70	36	53	-2	25	2751	445	1.18	0.52	27.60	7.75
Honeoye	71	31	50	-5	16	2693	259	1.86	1.21	27.86	8.22
Ithaca	71	29	50	-2	14	2575	496	1.25	0.48	23.07	1.56
Penn Yan	72	35	54	1	30	2911	605	0.74	0.08	23.24	3.39
Syracuse	73	36	54	1	33	3028	681	0.87	0.12	27.27	4.68
Warsaw	63	36	49	-2	10	2259	490	1.66	0.89	28.33	4.77
Western Plateau											
Alfred	70	33	50	-1	11	2483	737	1.41	0.71	26.95	4.78
Elmira	74	28	52	0	23	2762	568	1.10	0.47	22.37	2.31
Franklinville	69	27	48	-3	3	2149	546	1.24	0.40	25.98	2.11
Sinclairville	70	35	49	-2	10	2471	655	1.08	0.17	26.82	0.00
Eastern Plateau											
Binghamton	70	34	51	-2	18	2738	621	1.01	0.36	23.62	2.40
Cobleskill	69	35	51	-1	14	2462	493	2.08	1.38	27.33	4.44
Morrisville	67	34	49	-2	8	2315	445	1.56	0.78	30.47	7.36
Norwich	72	30	51	0	19	2394	427	1.48	0.74	25.91	3.12
Oneonta	70	32	51	2	15	2513	712	1.76	0.99	29.34	5.07
Coastal											
Bridgehampton	74	36	57	1	54	3273	762	0.97	0.27	17.29	-5.02
New York	76	52	62	2	84	4340	995	0.34	-0.32	17.34	-6.01

NY NASS WEATHER REPORTS OF TEMPERATURES AND PRECIPITATION THROUGHOUT NEW YORK STATE FOR WEEK ENDING SUNDAY 8:00am, October 10th, 2010