

FEBRUARY 28, 2011



Cornell University
College of Agriculture and Life Sciences



Cornell University Berry Team

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BUDGET ISSUES AND COMMERCIAL BERRY PRODUCTION

Everyone reading this article has some, likely direct, connection to the current financial concerns impacting us at the local, state and federal levels.

As you consider your personal situation and reaction to local, state and federal budget discussions, please also consider the proposed financial reductions to the NYS IPM Program and the federal CCE system.

To be clear, we are not asking you to take a particular stance, but rather to deliberately consider these impacts.

If you decide to actively jump into the discussions, below are some steps you can take.

We greatly appreciate your careful consideration of these matters.

Sincerely, The Cornell Berry Team

Budget Issues and Cooperative Extension

Because you are involved to some extent with berry and other educational programming through the Cornell Cooperative Extension, we wanted to inform you of the proposed cuts to the Cooperative Extension System at the federal level. If enacted, these reductions will reduce our (state and county) ability to deliver Cooperative Extension education programs.

Here is a link that describes the proposed cuts to the Cooperative Extension allocation <http://www.land-grant.org/reports/2011/02-11.htm>. Of note, the allocation to Smith-Lever funding (the core formula funding for Cooper-

ative Extension) is significantly reduced, about \$30 million, while the research allocation is increased. This isn't to disparage research, which we all need, but to highlight the need for stable Cooperative Extension programs to extend that new knowledge.

Steps to Take: The easiest and most straightforward if you have a FaceBook account. In addition, please send a short note to Dr. Helene Dillard, Cornell Cooperative Extension Director, to share any success stories where you have connected with Cooperative Extension programs. A success story could be as simple as "I participated in ABC events and as a result I have done X (give as many details about X, your changed awareness, knowledge or behavior, as possible). Email to Dr. Dillard hrd1@cornell.edu.

If the "social media" below is more than you want to address, an email to Dr. Dillard will be sufficient.

Post success stories about Cooperative Extension on local organizational and news-related Facebook and Twitter accounts.

"Like" the Cooperative Extension System Facebook page www.facebook.com/CooperativeExtension and share stories on the wall. Such stories should be brief and include links to local success stories.

Share your success stories on Congressional representatives' Facebook sites (Note: To post comments on a Facebook Page wall, the constituent must first "like" the congressional repre-

sentative page).

Reply to congressional representative Twitter posts, expressing the value of the Cooperative Extension System and use #CESValue as a hash tag in those replies.

Budget Issues and the NYS IPM Program

The NYS Integrated Pest Management program's contract with NYS Department of Agriculture and Markets was expected to last through June 30, 2011 – based on the state funding they were granted with your support and assistance last year. They just learned that the contract will be terminated early, on March 31, 2011 – which means that the NYS IPM Program will close on March 31, 2011.

While they expected to need your support to ensure their funding in the 2011-2012 NYS budget, this unforeseen event means support is needed NOW! As it stands, they will close before the budget is voted on.

More information is available on their website: <http://www.nysipm.cornell.edu/fruits/>.

Steps to Take: Letters and phone calls should be addressed to:

Governor Andrew Cuomo

NYS State Capitol Building, Albany, NY 12224

(518) 474-8390

(continued on last page)

Upcoming Berry Events

March 4, 2011. . *NASGA Webinar #3 Day Neutral Strawberries: Diseases/Insect and Mite Management*. To register: <http://www.nasga.org>.

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 nea8@cornell.edu.

March 11, 2011. . *NASGA Webinar #4 Emerging Pests: Brown Marmorated Stinkbug and Charcoal and Fusarium Crown Rots*. To register: <http://www.nasga.org>.

March 18, 2011. . *NASGA Webinar #5 Emerging Pests: Strawberry Viruses and Spotted Wing Drosophila*. To register: <http://www.nasga.org>.

March 25, 2011. . *NASGA Webinar #6 Emerging Pests: Nematodes and Root Rots and Advances in Root Weevil Management*. To register: <http://www.nasga.org>.

April 2, 2011. *Growing Berries in Tunnels and Greenhouses*, Cornell Cooperative Extension Office, 480 North Main St., Canandaigua NY 14424. For more information: Nancy Anderson (585) 394-3977 x427 or e-mail nea8@cornell.edu.

October 16-19, 2011. *ISHS Symposium on High Tunnel Horticultural Crop Production*, Ramada Inn and Conference Center, State College, PA. For more information contact Michael Orzolek at (814) 863-2251 or mdo1@psu.edu or visit <http://horticulture.psu.edu/cms/ishs2011/>.



Two Beginning Farmer Online Courses Offered in March

The Northeast Beginning Farmer Project is offering more of its popular online courses, including one that will help you take your marketing to the next level. Register now for:

What Do I Need to Do to Start a Farm Business? (BF 103) - a 6-week course for new and aspiring farmers addressing the legal, regulatory, and tax implications of farming. If you've ever wondered "at

what point will I be recognized as a farm?" this course is for you.

Intermediate Marketing for Farmers: Developing a Marketing Plan (BF 201) - is our first course that will take you beyond the basics of exploring marketing ideas to actually developing a formal marketing plan. Designed for people actively researching and planning farm start-up, or those who have a couple of years of

farming already under their belts.

Online courses require a basic comfort level with a computer and access to a DSL, cable modem, or satellite internet connection. All courses include real-time webinars as well as readings, discussion forums, and homework assignments on your own time.

Courses cost \$150. Learn more at www.nybeginningfarmers.org/courses/index.php?page=allcourse

Pesticide Applicator Training and Recertification Course March 24th

Cornell Cooperative Extension of Erie County will offer a pesticide applicator training session and recertification course on Thursday, March 24, 2011 from 8:15 AM to 12:15 PM at Cornell Cooperative Extension, 21 South Grove St., East Aurora, NY. This session is geared for individuals planning to take the Core and Category Pesticide Certification Exam specific to the focus of their work. Also, Core Recertification credits have been applied for. If you are attending for this purpose, you must bring your Pesticide Certification ID card with you.

The instructor is Sharon Bachman, Community Educator for Agriculture, CCE Erie County. Topics will include: Pesticide Applicator Certification, State Laws and Regulations, Federal Pesticide Laws; Types of Pesticides, The Label, Formu-

lations, Calculations for Mixing Pesticides, Equipment, Calibration, Weather-Wise Application, Disposal, Storage, Record Keeping and Liability. Also, IPM and Pests, Toxicity of Pesticides, Safety Precautions, Personal Protection for the Applicator and Worker; and Ecology and Environment Considerations.

The pesticide exam will be held at Cornell Cooperative Extension in East Aurora on, March 24th at 1:00 PM. If you are planning to take the exam, you must first call the NYSDEC Pesticide Division at 716-851-7220 to discuss eligibility. If you are eligible, DEC will send you a sign-up packet, which you must fill out and return to them with your examination fee of \$100. You must be pre-registered with DEC to take the exam. No walk-ins will be allowed. If you have any questions

regarding your certification, please contact DEC.

To purchase CORE and/or Commercial Category Manuals, contact Cornell's Pesticide Management Education Program at 607-255-7282 or patorder@cornell.edu (<https://psep.cce.cornell.edu/store/Manuals/>.)

Please register for this training by March 21. The cost for this session is \$22 for Ag Program enrollees and \$27 for non-enrollees.

To register or for more information, please contact Sharon Bachman (716-652-5400 x 150 or sin2@cornell.edu) or Deborah Murphy (716-652-5400 x 176 or dsm36@cornell.edu). For persons with disabilities requiring accommodations, please contact Deborah Murphy by 4:30 pm on March 17, 2011.



NYS Department of Ag and Markets News



COMMISSIONER ENCOURAGES RESTAURANTS TO SOURCE LOCAL FOOD

NY Restaurant Show Features 29 NY Food Producers, Wineries & Distributors

February 28, 2011. New York State Agriculture Acting Commissioner Darrel J.

Aubertine today encouraged New York restaurants in the city and statewide to source more New York food and beverages to meet growing consumer interest and demand for locally grown food. The announcement was made at the 20th annual International Restaurant & Foodservice

Show of New York, where the "Pride of New York Market-Place" featured exclusively New York food and beverage companies to show attendees.

"The buy local trend continues to gain momentum throughout the State," the Commissioner



"The buy local trend continues to gain momentum throughout the State", the Commissioner said, "but nowhere more than in New York City. We are excited to help chefs and restaurant owners meet the demand for our fine, local New York State products through venues such as the New York Restaurant Show."



NYS Department of Ag and Markets News



said, "but nowhere more than in New York City. We are excited to help chefs and restaurant owners meet the demand for our fine, local New York State products through venues such as the New York Restaurant Show. The Pride of New York Marketplace is the largest yet, and we hope to see more New York products featured on menus throughout the city so people can enjoy a true taste of New York when dining out or visiting."

To help restaurants identify local food and beverage companies, the New York State Department of Agriculture and Markets organized a "Pride of New York Marketplace" at the New York Restaurant Show that serves as a one-stop shop showcasing exclusively New York food and beverage companies. The Marketplace is the largest ever by including 29 New York companies offering a range of local products from fresh produce to processed items, as well as several distributors that carry New York products.

The following New York companies are participating in the "Pride of New York Marketplace" at the New York Restaurant Show taking place February 27 – March 1 at the Jacob K. Javits Convention Center in New York City.

A Taste of the North Fork (Suffolk County)

Anthony Road Wine Company

(Yates County)

Basis Farm to Chef (New York and Ulster Counties)

Beth's Farm Kitchen (Dutchess County)

Champlain Valley Specialties (Essex County)

Damascus Bakeries, Inc. (Kings County)

Dr. Konstantin Frank Vinifera Wine Cellars (Steuben County)

Esposito's Sausage (New York County)

Farm to Table Co-packers (Ulster County)

Great Performances (New York County)

Greenmarket Wholesale/GrowNYC (New York County)

Hudson Valley Duck Farm (Sullivan County)

Jerry Shulman Produce Shipper (Nassau County)

Katchkie Farm (Columbia County)

Long Island Agricultural Marketing Association (Nassau County)

Long Island Wine Council (Suffolk County)

My Brother Bobby's Salsa (Dutchess County)

North Country Farms (Jefferson County)

Northeast Livestock Processing Service, Inc. (Montgomery County)

Orwasher's Bakery (New York County)

Peconic Bay Winery (Suffolk County)

Red Jacket Orchards (Ontario County)

Regional Access (Tompkins County)

Rick's Pick's (New York County)

Ronnybrook Farm Dairy (Columbia County)

Shawangunk Wine Trail (Orange County)

The Ravioli Store (Queens County)

Winter Sun Farms (Ulster County)

Yohay Baking (Suffolk County)

The Pride of New York Program is the State's marketing and promotion initiative enabling New York farmers and food processors to brand their fresh and processed products as being grown or produced in the State. The Program also enables restaurants, food service establishments, food distributors and food retailers to utilize the program's emblem to help advertise and help consumers identify the locally grown or produced New York food products they carry.

To become involved or for more information on the Pride of New York Program, call 1-800-554-4501 or visit <http://www.prideofny.com>.



USDA News



USDA Seeks Comments on Farmers Market Promotion Program Rule Proposal and Information Collection

WASHINGTON, Jan. 21, 2011—USDA's Agricultural Marketing Service (AMS) is seeking comments on a Farmers Market Promotion Program (FMPP) rule proposal and has announced its intention to request approval of new information collection from the Office of Management and Budget.

The proposed rule would establish eligibility and application requirements, the review and approval process, and grant administration procedures for the FMPP.

The FMPP was created through an amendment of the Farmer-to-Consumer Direct Marketing Act of 1976. The grants authorized by the FMPP, originally funded in 2006 and revised under the 2008 Farm Bill, are designed to improve and expand do-

mestic farmers markets, roadside stands, community-supported agriculture programs, agritourism activities and other direct producer-to-consumer marketing opportunities.

The proposed rule and request for approval of new information collection was published in the Jan. 19, 2011, Federal Register. USDA encourages the public to provide comments electronically (preferred) by Internet to



USDA News



“Providing producers with the opportunity to assess their energy usage and make needed improvements can save money while also benefitting the environment and reducing greenhouse gas emissions.”

<http://www.regulations.gov>. All comments should reference Docket No. AMS-TM-10-0088, TM-08-07. Comments received by March 21, 2011, will be considered. Comments may also be sent by mail to: Errol R. Bragg, Director, Marketing Services Division, Transportation and Marketing Programs, Agricultural Marketing Service, USDA, 1800 M Street, NW., Room 3012-South Tower, Washington, D.C., 20036.

For questions about this proposed rule and information collection contact Carmen Humphrey, Branch Chief, Marketing Grants and Technical Services Branch, Marketing Services Division, Transportation and Marketing Programs, AMS, at (202) 694-4000 or via fax at (202) 694-5949.

USDA Assistance Available to Producers to Conduct and Implement Energy Audits

WASHINGTON, January 28, 2011 – Agriculture Secretary Tom Vilsack today announced the expansion of a USDA initiative to help farmers and ranchers conduct energy audits and improve their overall energy efficiency. The initiative builds on the existing energy audit initiative to also help producers implement the energy conservation and efficiency recommendations that result from an energy audit.

“On-farm energy audits are one example of the many ways the Obama administration is supporting rural communities and helping rural families thrive,” Vilsack said. “Providing producers with the opportunity to assess their energy usage and make needed improvements can save money while also benefitting the environment and reducing greenhouse gas emissions.”

On-farm energy audits are tailored to each agricultural operation’s primary energy uses. The audits help produc-

ers determine the amount of energy used by the entire operation and also identify short- and long-term measures producers can implement to conserve energy and achieve greater energy efficiencies.

The On-Farm Energy Audit/Implementation Initiative is offered through USDA’s Natural Resources Conservation Service (NRCS), which provides technical and financial assistance for this purpose through the [Environmental Quality Incentives Program](#) (EQIP). The on-farm energy audits, which are offered as EQIP Agricultural Energy Management Plans, must be conducted by certified technical service providers. Producers who have had an on-farm energy audit conducted that meets or exceeds the criteria of an EQIP Agricultural Energy Management Plan may apply for technical and financial assistance to implement the audit’s recommendations.

Interested producers should contact their local NRCS office immediately to determine their State’s specific deadline and payment schedule. Application deadlines may be no later than February 25, 2011. NRCS Service Center contact information is available on the Web at <http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>.

USDA and HHS Announce New Dietary Guidelines to Help Americans Make Healthier Food Choices and Confront Obesity Epidemic

WASHINGTON, Jan. 31, 2011 — Agriculture Secretary Tom Vilsack and Secretary of the Department of Health and Human Services (HHS) Kathleen Sebelius today announced the release of the *2010 Dietary Guidelines for Americans*, the federal government’s evidence-based nutritional guidance to promote health, reduce the risk of chronic diseases, and reduce the prevalence of overweight

and obesity through improved nutrition and physical activity.

Because more than one-third of children and more than two-thirds of adults in the United States are overweight or obese, the 7th edition of *Dietary Guidelines for Americans* places stronger emphasis on reducing calorie consumption and increasing physical activity.


“The *2010 Dietary Guidelines* are being released at a time when the majority of adults and one in three children is overweight or obese and this is a crisis that we can no longer ignore,” said Secretary Vilsack. “These new and improved dietary recommendations give individuals the information to make thoughtful choices of healthier foods in the right portions and to complement those choices with physical activity. The bottom line is that most Americans need to trim our waistlines to reduce the risk of developing diet-related chronic disease. Improving our eating habits is not only good for every individual and family, but also for our country.”

The new 2010 *Dietary Guidelines for Americans* focus on balancing calories with physical activity, and encourage Americans to consume more healthy foods like vegetables, fruits, whole grains, fat-free and low-fat dairy products, and seafood, and to consume less sodium, saturated and *trans* fats, added sugars, and refined grains.

“Helping Americans incorporate these guidelines into their everyday lives is important to improving the overall health of the American people,” said HHS Secretary Sebelius. “The new *Dietary Guidelines* provide concrete action steps to help people live healthier, more physically active and longer lives.”

The *2010 Dietary Guidelines for Americans* include 23 Key Recommendations for the general population and six



 Natural Resources Conservation Service



USDA News



additional Key Recommendations for specific population groups, such as women who are pregnant. Key Recommendations are the most important messages within the *Guidelines* in terms of their implications for improving public health. The recommendations are intended as an integrated set of advice to achieve an overall healthy eating pattern. To get the full benefit, all Americans should carry out the *Dietary Guidelines* recommendations in their entirety.

More consumer-friendly advice and tools, including a next generation Food Pyramid, will be released by USDA and HHS in the coming months. Below is a preview of some of the tips that will be provided to help consumers translate the *Dietary Guidelines* into their everyday lives:

- Enjoy your food, but eat less.
- Avoid oversized portions.
- Make half your plate fruits and vegetables.
- Switch to fat-free or low-fat (1%) milk.

- Compare sodium in foods like soup, bread, and frozen meals – and choose the foods with lower numbers.
- Drink water instead of sugary drinks.

This edition of the Dietary Guidelines comes at a critical juncture for America's health and prosperity. By adopting the recommendations in the *Dietary Guidelines*, Americans can live healthier lives and contribute to a lowering of health-care costs, helping to strengthen America's long-term economic competitiveness and overall productivity.

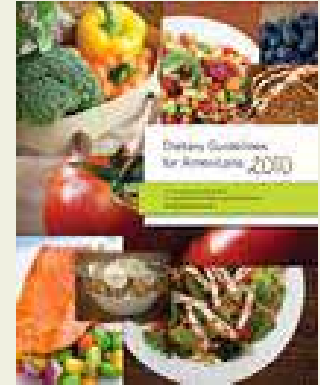
USDA and HHS have conducted this latest review of the scientific literature, and have developed and issued the 7th edition of the *Dietary Guidelines for Americans* in a joint effort that is mandated by Congress. The *Guidelines* form the basis of nutrition education programs, Federal nutrition assistance programs such as school meals programs and Meals on Wheels programs for seniors, and dietary advice provided by health professionals.

The *Dietary Guidelines*, based on the most sound scientific information, provide authoritative advice for people 2 years and older about how proper dietary habits can promote health and reduce risk for major chronic diseases.

The *Dietary Guidelines* aid policymakers in designing and implementing nutrition-related programs. They also provide education and health professionals, such as nutritionists, dietitians, and health educators with a compilation of the latest science-based recommendations. A table with key consumer behaviors and potential strategies for professionals to use in implementing the *Dietary Guidelines* is included in the appendix.

The *2010 Dietary Guidelines* is available at www.dietaryguidelines.gov.

For more information on dietary guidelines, see www.health.gov/dietaryguidelines and www.healthfinder.gov/prevention.



"The 2010 Dietary Guidelines are being released at a time when the majority of adults and one in three children is overweight or obese and this is a crisis that we can no longer ignore,"

NY NASS NEWS

NEW YORK BERRY PRODUCTION DECREASES

Strawberry production in New York was down 20 percent from 2009 to 3.50 million pounds, according to King Whetstone, Director of USDA's National Agricultural Statistics Service, New York Field Office. The value of utilized production is estimated at \$6.90 million, down 24 percent from the \$9.02 million in 2009. New York ranks eighth in strawberry production. Nationally, the strawberry crop for 2010 was placed at 2.85 billion pounds, up 2 percent from 2009.

Production of blueberries for the Empire State was at 2.30

million pounds, down 4 percent from 2009. The 2010 crop is valued at \$4.52 million, a slight decrease from \$4.56 million last year. The U.S. estimate for blueberries is 415 million pounds, up 13 percent from 2009.

Total raspberry production in New York was 1.30 million pounds in 2010, down 13 percent from 2009. The raspberry crop is valued at \$3.75 million, an 8 percent decrease from last year.

New York's berry crop had a combined total value of \$15.2 million. This value is down 14 percent from the \$17.6 million in 2009.

For more information:

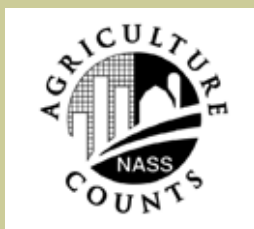
www.nass.usda.gov/ny.

NEW YORK FARM NUMBERS DECREASE

The number of farms in New York for 2010 decreased from a year earlier, reports King Whetstone, Director of USDA's National Agricultural Statistics Service, New York Field Office. The number of farms for 2010 is estimated at 36,300. Land in farms was 7.00 million acres.

Farms with sales over \$500,000 decreased by 250 to 1,750 while farms with sales between \$250,000 and \$499,999 fell by 150 to 1,450. The area of land operated by farms in these two groups totaled 2.50 mil-





NY NASS NEWS (continued)

lion acres, 12 percent below a year ago. The next smaller sales class, farms with sales between \$100,000 and \$249,999 increased by 200 to 3,400 while land operated by these farms increased to 1.20 million acres. There were 10,700 farms with sales between \$10,000 and

\$99,999 compared with 10,900 a year earlier. Land they operated totaled 1.70 million acres. There were 100 more small farms with sales between \$1,000 and \$9,999 in 2010, at 19,000. Land in farms for this class increased 100,000 acres from the previous year to 1.60 million acres.

United States in 2010 is estimated at 2.2 million, virtually unchanged from 2009. Total land in farms, at 920.0 million acres, increased 100 thousand acres from 2009. The average farm size is 418 acres, unchanged from the previous year.

The number of farms in the

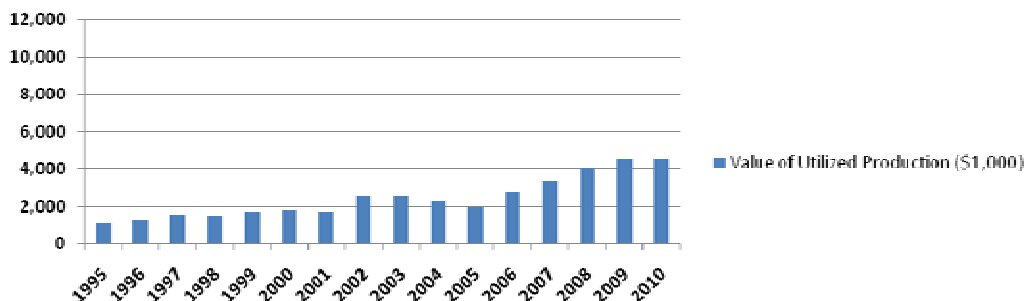
NYS Blueberries : Yield, Production and Value

Crop Year	Acres of Bearing Age	Harvested Acres	Total Thous. Lbs	Production Utilized Thous. Lbs	Market Year Weighted Avg. Price \$ per Lb	Value of Utilized Production 1,000 Dol.
1992	700	650	1,500	1,300	0.88	1,144
1993	600	560	1,680	1,680	0.98	1,646
1994	660	660	1,400	1,300	1.08	1,404
1995	600	600	1,200	1,100	1.00	1,104
1996	650	650	1,300	1,200	1.02	1,229
1997	700	700	1,600	1,500	1.07	1,602
1998	700	700	1,600	1,500	1.02	1,536
1999	700	700	1,900	1,600	1.08	1,733
2000	700	700	2,000	1,900	0.96	1,816
2001	700	700	1,700	1,500	1.18	1,765
2002	700	700	2,100	1,900	1.34	2,550
2003	800	800	2,100	2,000	1.29	2,578
2004	800	800	2,000	1,700	1.36	2,315
2005	850	850	1,500	1,400	1.40	1,963
2006	900	900	2,200	2,000	1.40	2,796
2007	900	900	2,500	2,300	1.47	3,373
2008	900	900	2,500	2,300	1.79	4,107
2009	900	900	2,400	2,100	2.17	4,558
2010	900	900	2,300	2,100	2.15	4,521

"Production of blueberries for the Empire State was at 2.30 million pounds, down 4 percent from 2009. The 2010 crop is valued at \$4.52 million, a slight decrease from \$4.56 million last year.."



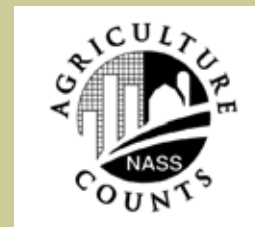
NYS Blueberries



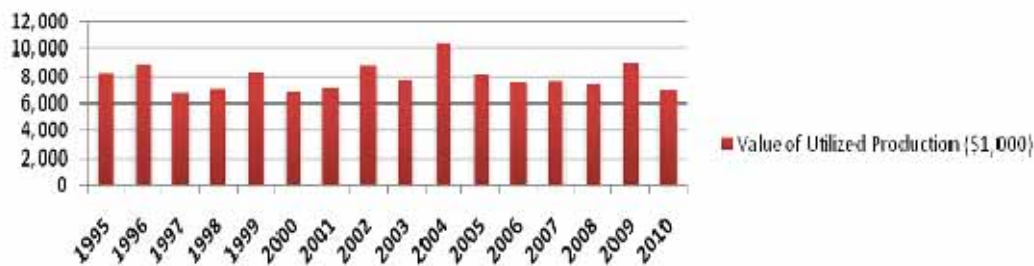
NY NASS NEWS (continued)

NYS Strawberries: Yield, Production and Value

Crop Year	Planted Acres	Harvested Acres	Production Thous.cwt	Marketing Year average price \$ per cwt	Value of Utilized Production 1,000 Dol.
1995	2,400	2,200	77	107.00	8,239
1996	2,000	1,900	74	120.00	8,880
1997	1,700	1,600	67	101.00	6,767
1998	1,700	1,600	61	115.00	7,015
1999	1,700	1,600	78	106.00	8,268
2000	1,700	1,600	65	105.00	6,825
2001	1,700	1,600	60	118.00	7,080
2002	1,700	1,400	63	140.00	8,820
2003	1,700	1,500	50	155.00	7,750
2004	1,700	1,500	65	160.00	10,400
2005	1,700	1,500	52	155.00	8,060
2006	1,700	1,500	44	170.00	7,480
2007	1,600	1,400	46	165.00	7,590
2008	1,600	1,400	45	165.00	7,425
2009	1,400	1,400	44	205.00	9,020
2010	1,400	1,400	35	197.00	6,895

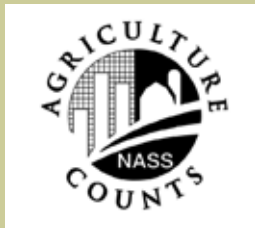


NYS Strawberries



"Strawberry production in New York was down 20 percent from 2009 to 3.50 million pounds. The value of utilized production is estimated at \$6.90 million, down 24 percent from the \$9.02 million in 2009."

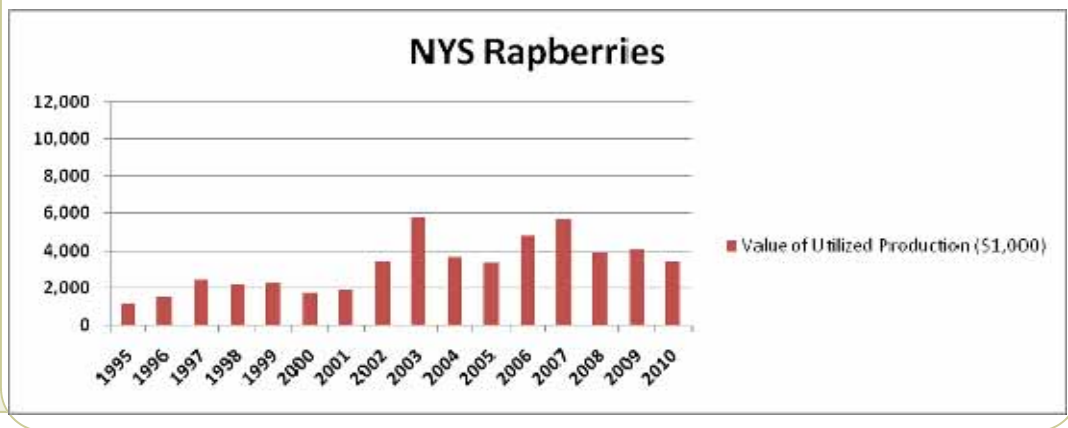
NY NASS NEWS (continued)



NYS Raspberries : Yield, Production and Value

Crop Year	Acres of Bearing Age	Harvested Acres	Total Thous. Lbs	Production Utilized Thous. Lbs	Market Year Weighted Avg. Price \$ per Lb	Value of Utilized Production 1,000 Dol.
1995	450	450	980	840	1.40	1,178
1996	450	450	1,000	900	1.66	1,493
1997	450	450	1,400	1,300	1.85	2,406
1998	450	450	1,200	1,000	2.20	2,200
1999	450	450	1,100	900	2.50	2,250
2000	450	450	1,300	1,000	1.70	1,700
2001	450	450	1,100	950	2.00	1,900
2002	450	450	1,500	1,250	2.75	3,438
2003	450	450	2,300	2,000	2.88	5,760
2004	450	450	1,900	1,350	2.73	3,702
2005	450	450	1,400	1,300	2.62	3,400
2006	450	450	1,600	1,500	3.20	4,797
2007	500	500	1,750	1,750	3.27	5,723
2008	500	500	1,800	1,350	2.91	3,928
2009	500	500	1,500	1,300	3.12	4,052
2010	500	500	1,300	1,250	3.00	3,476

"Total raspberry production in New York was 1.30 million pounds in 2010, down 13 percent from 2009. The raspberry crop is valued at \$3.75 million, an 8 percent decrease from last year."



NEW YORK BERRY GROWER ASSOCIATION (NYS BGA) NEWS

A Whirl Wind Day

Dale Ila Riggs, Chair, The Berry Patch, Stephentown NY

I've just returned from a whirlwind trip to Washington D.C., and what a day! On the plane at 6 AM; eleven meetings with staff and congressional representatives, and home again at 11:45 PM. Not a bad day's worth of work for February...

Our Executive Secretary, Paul Baker, arranged the meetings with congressional and senatorial offices, and did a great job shepherding Chuck Mead, members of the Board of the NYS Horticultural Society, and myself around Capitol Hill to meet with representatives from throughout New York State. What was the purpose of the trip? I think we sent a message loud and clear that if New York State fruit growers are going to be growing fruit in the future, we need a workable guest worker pro-

gram so that we can have a reliable, legal workforce.

With the changeover in Congress, we wanted to introduce ourselves to new members of Congress and let them know what a critical issue this is to those of us in NYS who grow berries, tree fruit, vegetables, and any other crops that must be hand harvested. I was impressed with the knowledge that many staff members had of the labor issue, and for those staff members who were new, they seemed genuinely interested in trying to help resolve the problem. They asked lots of questions so that they could better understand the complexity of the issues involved.

If there are other problems that you feel are important to the berry industry that should be addressed at the state or national level, feel free to tell Paul, myself, or any member of the Board of the NYS Berry Growers Association. Paul has regular interaction with legislators in Albany and Washington. I was exhilarated by the Washington

experience, so I expect to make another trip at some point, and other Board members have expressed an interest in meeting with our Albany legislators. Let us know if there is something that needs to be addressed legislatively. The Berry Growers Association works to support research for the berry industry. We work to support marketing on a statewide basis for the berry industry. We can work on legislative issues for the berry industry as well. Let us know what you need help with! And based on my experience last week, legislative staff really do want to know what problems exist that they can address through legislation, so let them know through a phone call or letter from yourself! Just like in other industries, when individuals form a collective voice, a lot more gets done. That's why the NYS Berry Growers Association exists – to help the industry as a whole have a voice. Let us hear your voice today.



"If New York State fruit growers are going to be growing fruit in the future, we need a workable guest worker program so that we can have a reliable, legal workforce."

IT'S TIME TO BUY HAY FOR THE HORSES – Marvin Pritts

Researchers are under more pressure than ever before to find funds outside of the university to do their work. Traditionally, funding has come mostly from the state. In New York, the state has provided salary dollars for faculty and technicians, money for the NY Farm Viability Institute and modest grant programs like IPPM, and matching commodity money from certain groups (e.g. grapes and turf grass). However, as state resources diminish, these funds are disappearing, sending researchers scrambling for money to support their programs. The state is no longer providing technicians for faculty, and the number of graduate students had been reduced dramatically. Essentially, the state pays faculty salary, and that's it. Faculty are expected to

find groups outside of the university to provide operational money for research. The federal government has stepped up to some extent, but their money is mostly conditional on grower groups providing matching funds. It is now more critical than ever that grower groups demonstrate that they value research by providing some of their own money for scientists. No longer will taxes cover the cost of doing research.

Fortunately, the state is still paying salaries of faculty, so money contributed by growers for research can leverage a Ph.D. level scientist without paying their salary. As a former administrator told a grower group, "You provide the hay, we'll provide the horses." From a grower's perspective, the biggest bang for

the buck can come from 1) providing faculty with summer help to do some of the labor-intensive tasks involved in growing and harvesting berries and 2) putting up money to gain a federal match.

Although individual contributions to a faculty program are welcomed, they are most effective when pooled with other contributions so a significant sum (i.e. \$5,000 — \$7,000) can be directed to a project or program. (This is about what it costs for a summer helper.) Your NYS Berry Growers Association is the most effective way to pool resources with others and direct them to activities that benefit you right here at home. No overhead, no cut off the top, just your dollars going directly to buy hay for the horses.





Third Webinar of the Series:

March 4, 2011

"Diseases" - Dr. Frank Louws,
NC State University



"Insect and Mite Management"
- Dr. David Handley,
University of Maine.



NARBA NEWS

NEW NARBA EXECUTIVE COUNCIL MEMBERS

NARBA's annual meeting was held on January 6 during our conference in Savannah. At that meeting, members elected two new Executive Council (EC) members, Fred Koenigshof, representing Region 3 (MI, NJ, NY, PA and Europe) and Marie-France Chevrefils, representing Region 1 (Canada).

Two incumbent EC members, John Duval (Region 5) and Wayne Mitchem (Region 7) were re-elected to a second term. NARBA president Nate Nourse also thanked the two EC members present who were retiring from the Council after four years (two terms) of thoughtful and committed service, Susan Lynn, from Pennsylvania, and Henry Mutz, from

British Columbia.

One additional seat on the EC not filled during the annual meeting, was the At-Large seat held by Mark Bolda, UC Extension, Watsonville. Mark, who also leaves the Board after two terms on the board, was a lead organizer of last year's conference. For this seat, NARBA president Nate Nourse has appointed José Luis Bustamante of Zamora, Mexico.

Feel free to get in touch with any EC member, especially the person representing your region, with your concerns or suggestions for NARBA.

Region 1 (all of Canada)

Marie-France Chevrefils

FraiseBec

420 rang Lepage

Sainte-Anne-des-Plaines, QC

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NASGA NEWS

Day Neutral Strawberries and Emerging Pests: ID and Management

Register now to participate in this live webinar series! All you need is a home or office computer and high speed internet access. to attend this educational series sponsored by NASGA and co-hosted by Cornell University Dept. of Horticulture and Cornell Cooperative Extension.

Participation is free, but registration is necessary to participate. Registration is on a first-come-first-served basis for the first 100 participants. To register go to:

<http://www.nasga.org/> .

All webinars will begin promptly at 1 PM EST and last approximately 1 hour and 15 minutes.

Registrants will received an e-mail with instructions and a web link prior to each webinar. Simply click on the link to

see the scheduled presentations given live by the speakers from his or her location across the US and Canada. Type questions into the chat box provided for real time Q and A with the speakers after the presentations.

Webinar Schedule

March 4, 2011

"Diseases" - Dr. Frank Louws, North Carolina State University.

"Insect and Mite Management for Day Neutral Strawberries" - Dr. David Handley, University of Maine. *(continued on page 6)*

Emerging Pests: ID and Management

March 11, 2011

"Brown Marmorated Stinkbug" - Dr. Tracy Leskey, USDA ARS Apalachian Fruit Research Station

"Fusarium and Charcoal Crown Rots" - Mr. Steven Koike, University of California Cooperative Extension, Monterey County.

March 18, 2011

"Strawberry Viruses" - Dr. Robert Martin, USDA ARS, Corvallis Oregon

"Management of the spotted wing drosophila in the small fruits" - Mr. Mark Bolda, University of California Cooperative Extension, Santa Cruz County.

March 25, 2011

"Nematodes and Root Rots" - Dr. James LaMondia, The Connecticut Agricultural Experiment Station.

"Advances in Root Weevil Management" - Dr. Richard Cowles, The Connecticut Agricultural Experiment Station.

On the Organic Side...

Organic EQIP Initiative for 2011

WASHINGTON, Jan. 31, 2011—The National Organic Program (NOP) today released an updated version of the Program Handbook, a resource to clarify existing Federal organic requirements and offer best practices to help the regulated industry comply.

Issued every quarter as necessary, the latest edition of the handbook now includes policy memos, or formal communications addressed to the public concerning a specific regulatory requirement. Currently, these policy memos address the following topics:

- Accredited Certifying Agent Inspection Authority
 - Sulfur Dioxide in wine made with organic fruit
 - Attestation Statement for agricultural products certified under the U.S.-Canadian Equivalence Arrangement
 - Use of Natural Flavors
 - Certification of agricultural products that meet NOP Standards
 - Labeling of Alcoholic Beverages
 - Verification of Materials
 - Access to the Outdoors for Livestock
 - Reporting Health and Safety Violations
 - Private Label Certification
 - California State Organic Program, Additional Requirements Granted
 - Calculating the Percentage of Organically Produced Ingredients
 - Grower Group Certification
 - NOP Statements on Cloning and Organic Livestock Production
 - Confinement of Poultry Flocks
- Additionally, a new instruction document addresses disclosure of information concerning USDA accredited certifying agents and certified operations. Instruction documents set forth or clarify existing NOP procedures and offer best practices for conducting business related to certification, accreditation,

international activities, and compliance and enforcement.

"The updated handbook is intended to help the organic industry consistently comply with the organic regulations," said Rayne Pegg, Agricultural Marketing Service administrator. "By including current and valid policy memos issued by the NOP since the inception of the program, the handbook becomes that much more of a valuable resource for organic producers, handlers, and consumers."

The NOP aims to make clear and transparent the requirements that have been imposed by existing organic legislation and Federal regulations. The handbook also serves to provide exemplary standard operating procedures and specific approaches to help ensure that all parties implement the program's mandate consistently and effectively.

Most readily accessible at www.ams.usda.gov/NOPProgramHandbook, the resource can also be distributed in hard copy by contacting the National Organic Program Standards Division, 1400 Independence Ave., SW., Room 2646-S, Ag Stop 0268, Washington, D.C. 20250-0268; telephone (202) 720-3252; fax (202) 205-7808. For more information, contact Melissa Bailey, Ph.D., director, Standards Division of NOP, at (202) 720-3252.

USDA Reviews Impact of Organic Regulations on Small Businesses

WASHINGTON, Feb. 25, 2011—The U.S. Department of Agriculture announced today that it is reviewing the National Organic Program regulations (7 CFR part 205) concerning their impact on small businesses.

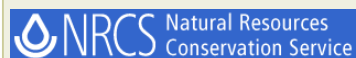
The review is being conducted under criteria contained in section 610 of the Regulatory Flexibility Act, whose provisions require that all Federal agencies review existing regulations that have a sig-

nificant economic impact on a substantial number of small entities and to determine whether the associated impact can be minimized.

In doing so, the AMS will consider the following: (1) The continued need for the regulations; (2) the nature of complaints or comments received from the public concerning the regulations; (3) the complexity of the regulations; (4) the extent to which the regulations overlap, duplicate, or conflict with other Federal rules, and, to the extent feasible, with State and local regulations; and (5) the length of time since the regulations have been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulations. This review of the NOP regulations will help determine whether they should be continued (without change), amended, or rescinded to minimize the impacts on small entities.

"AMS is committed to mitigating undue burden on the entities we serve, which range from small to large producers and handlers," said Rayne Pegg, AMS administrator. "As we periodically review our regulations we will consider these criteria to determine how the NOP standards should continue to be enforced."

AMS invites the public to provide written comments, views, opinions, and other information specific to the impact of the NOP regulations on small businesses. Interested persons can send comments by visiting <http://www.regulations.gov> (reference document number AMS-NOP-11-0005; NOP-11-01), or by mailing written comments to Toni Strother, Agricultural Marketing Specialist, National Organic Program, USDA-AMS-NOP, 1400 Independence Ave., SW, Room 2646-So., Ag Stop 0268, Washington, DC 20250. Comments must be received by April 26, 2011.





"FIFRA Section 2(ee) labels on pesticides mean that they are classified for restricted use only in New York State. Any user must have the 2(ee) recommendation in his or her possession at the time of application."



Berry Diagnostic Tool

<http://www.fruit.cornell.edu/berrytool/>

Pest Management Update - Laura McDermott and Cathy Heidenreich Cornell University

2011 Berry Crop Label Updates

There are many new pesticides available for use on berry crops this season. Below is a list of those that have new labels, or a supplemental label within the last year or two. Also included are materials that have 2(ee) labels, and materials with impending changes in availability. Basic use information is listed to provide the user with an idea of how this product might fit into their pest control arsenal; by no means should a grower rely on these brief statements when applying these materials. As always, please read the label thoroughly and call your extension agent if you have questions.

Herbicides

Prowl H2O (strawberry) - [Supplemental label](#) for strawberries was approved in 2009 and will expire on Dec. 31, 2011. Supplemental labels are the vehicles that chemical manufacturers must use as they amend the original label, so the hope is that strawberry uses will be added to the Prowl H2O label permanently in 2012. Applicators need to follow instructions on both supplemental and primary labels. See label for special instructions for application of Prowl H2O through sprinkler irrigation systems. Prowl H2O can be used as follows:

Before planting strawberries. Apply to the soil surface before planting to prevent most annual grasses and suppress several broadleaves like velvetleaf or purslane. Irrigate after application to activate herbicide OR shallowly incorporate. Do not apply to soil that will be covered in plastic, but applications to row middles between the beds are allowed. Post-transplant applications may be made ONLY if no foliage on dormant plants are exposed to spray. A 2nd application

between rows may be applied 35 days before harvest, but material must not come in contact with foliage.

Apply to strawberries in fall or winter dormancy. Do Not apply if new seasonal growth has appeared.

Insecticides/Miticides

FIFRA Section 2(ee) labels on pesticides mean that they are classified for restricted use only in New York State. Any user must have the 2(ee) recommendation in his or her possession at the time of application.

2(ee) registrations include:

[Danitol 2.4EC 2\(ee\)](#) for Brown Marmorated Stinkbug (BMSB) control on bushberries and strawberry. Danitol 2.4EC can be used at the 0.2-0.3 lb ai/A for bushberries and 0.2-0.4 lb ai/A for strawberries as a foliar spray. Control can be improved by using a non-ionic surfactant and increasing spray volume. Begin applications when 1st pest activity is noticed, repeating as needed and increasing rates under severe pest pressure. [Danitol](#) also has a Supplemental label which now includes bushberries and caneberries. Do not use more than 2 applications of Danitol 2.4 EC per season as part of a resistance management program.

[Delegate WG 2\(ee\)](#) for Spotted Wing Drosophila (SWD) suppression on bushberries and caneberries. Delegate WG may be used as part of an integrated program to manage SWD. Use is limited to directed to ground applications at 3-6 oz/A. Use a higher rate for moderate to severe infestations and/or larger plant volume. Begin applications at first sign of adult activity. Occurrence of multiple generations per growing season may require repeated applications. Follow resistance management recommendations on product label.

[Entrust 2\(ee\)](#) for Spotted Wing Drosophila (SWD) control on bushberries and caneberries. Entrust should be used as a foliar application at a rate of 1.25 – 2 oz/A.

[Platinum 75 SG Supplemental label](#) – Not for use on Long Island. This insecticide is legal for use in NYS on bushberries, low growing berries including strawberries and vining berries (not including fuzzy kiwi). It is not labeled for use on cane berries, and in NY it is NOT labeled for grapes. The pre-harvest interval is quite long – 50-75 days depending upon the berry category, but because of the granular nature of the product and the fact that you apply early in the season, it may be very handy for growers. Apply a surface band on each side of the row to drip-line. Irrigate immediately after application. Rate varies according to berry crop. This material can provide control or all types of grubs including Japanese beetle. It will also control aphids, leafhoppers and mealybugs.

[Portal 2\(ee\)](#) for Cyclamen Mites for low-growing berries subgroup including strawberries, cranberries, lingonberries (subgroup 13-07G). Apply 2.0 pts per acre in minimum spray volume of 25 gallons water per acre. No more than 4 pints per acre per season. Allow at least 14 days between the 2 seasonal applications. Do not use adjuvants and do not apply through irrigation or by air.

New Registrations include:

[Actara](#) for all berries to control a wide variety of insects including stink bugs, Japanese beetles, tarnished plant bugs, whiteflies, weevils and aphids. Application rates vary depending upon type of berry targeted, so please refer to the label.

[Altacor](#) for caneberries and climbing vine berries (NOT fuzzy kiwifruit) for the control

Pest Management Update (continued)

of omnivorous leafroller and raspberry crown borer. Apply 3.0-4.5 oz/A with a limit of 9 oz/A/season using no more than 3 applications. Allow a minimum of 7 days between applications and use 100-150 gallons water per acre for best results.

AzaSol, a water soluble bio insecticide from Neem can be used on all berries for control of many pests. Rate is 6 oz in 50 gallons of water/A applied as a foliar spray or a soil drench.

Endosulfan registration To Be Cancelled - Endosulfan is an organochlorine insecticide that has been used on a wide variety of vegetables and fruits. EPA concluded that endosulfan's risks to wildlife and agricultural workers outweighed its benefits to growers and consumers. EPA is working out the details to terminate all endosulfan uses while considering growers' needs as they change their pest control practices.

Avaunt had the label expanded in 2010 to include bushberries and cranberries for the control of cranberry fruitworm, cherry fruitworm and winter moth. Avaunt can

be applied using overhead irrigation in cranberries only.

Guthion use on blueberries was restricted in 2010. No aerial applications are allowed and , 1.5 lb maximum application rate. **Note:** Guthion may not be used on highbush blueberries after 9/30/2012.

Fungicides

Rampart was labeled for the control of downy mildew, Phytophthora, Pythium and other diseases on blueberries, caneberries, cranberries, currants, elderberries, gooseberries and strawberries. Rampart is a phosphoric acid material that has a wide variety of acceptable application methods which vary according to the disease and crop in question. Please refer to label for details.

Agri-Fos, a phosphorous acid fungicide with systemic properties was labeled for use on strawberries to control leather rot and other Phytophthora diseases. Recommended rate is 1-3 quarts in 50-100 gallons water per acre for foliar spray while 1.25 quarts in 100 gallons of water is the recommendation for a foliar dip

when used to control red stele.

Agri-Star Sonoma 40WSP has been approved for use in caneberries, currants, gooseberries and strawberries to control powdery mildew, rust diseases, leaf spot and leaf blight and gooseberry anthracnose. This material should be used as an early season preventative spray. Rates vary according to disease and fruit, so please refer to label for specific instructions.

PropiMax was labeled for the control of certain diseases, including leaf spot, rust, mummyberry and powdery mildew on blueberries, caneberries and cranberries. Application rate is 6 fl oz/A and applications should begin when conditions favor disease development or prior to bloom. Do not apply more than 30 fl oz/A per season and not within 30 days of harvest.

A listing of berry crop label alerts may be found at: <http://www.fruit.cornell.edu/berry/labelalerts/>.

Berry Disease Snapshot: Raspberry Bushy Dwarf of Raspberry and Blackberry – Kerik Cox, Cornell University and Bob Martin, USDA-ARS, Corvallis, Oregon

Raspberry bushy dwarf is poorly named as plants are neither bushy nor dwarfed when infected only with Raspberry bushy dwarf virus (RBDV). T

he primary symptom of RBDV infection in many cultivars is crumbly fruit; however in several cultivars such as Autumn Bliss symptoms include bright yellow foliage.

RBDV infections may be asymptomatic in some cultivars

in single infections.

Severe crumbly fruit associated with RBDV is usually the result of mixed infections with additional viruses.

It should be noted that infection with Tomato ringspot virus often causes severe crumbly fruit and stunting of plants, additionally mixed infections of other viruses can also cause crumbly fruit.

Severe crumbly fruit symp-

toms are usually the result of mixed virus infections.

There may be interveinal chlorosis and fruit may be malformed, due to a failure of some drupelets to develop, in addition to crumbling under slight pressure when picked.

RBDV is present in and on pollen and likely transmitted by pollinating insects, which is the reason to remove infected plantings prior to bloom, and replant with certified virus-



<http://www.omri.org/omri-lists>



PMEP

Pest Management
Education Program:

<http://pmep.cce.cornell.edu/>



PIMS

Product, Ingredient,
and Manufacturer
System:

<http://pims.psur.cornell.edu/>

Disease Name: Raspberry Bushy Dwarf

Cause: Raspberry Bushy Dwarf Virus (RBDV)

When to watch for it: First leaf to fruit maturity

First line of defense: Remove plantings and replant with healthy clean stock. Remove infected plants prior to bloom to minimize danger to nearby plantings.



Dr. Kerik Cox is Assistant Professor and Tee fruit and Small fruit Pathologist in the Cornell University Department of Plant Pathology and Plant-Microbe Biology, Geneva, NY.



Dr. Greg Loeb is Professor and grape and small fruit entomologist in the Cornell University Department of Entomology, Geneva, NY



Spotted Wing Drosophila Adult
Photo courtesy G. Arakelian, Los Angeles County Agricultural Commissioner/Weights & Measures Department

Berry Disease Snapshot: Raspberry Bushy Dwarf of Raspberry and Blackberry (continued)

tested stock.

Since the virus is pollen-borne, one can replant the field with certified clean stock once the planting has been removed including roots that may sprout and serve as a source of virus in the newly planted field.

Bear in mind that crumbly mature fruit is a physiological consequence of virus infection. Several viruses and physiological problems including nutritional deficiencies and toxicity could lead to crumbly fruit at maturity.

Thus, if you have a problem with crumbly fruit it is important to get plants tested for viruses before removal to ensure replanting will address the problem.



Photo courtesy Oregon State University Extension.



Photo Courtesy B. Strik, Oregon State University and R. Martin, USDA-ARS, Corvallis, Oregon

Fruit Fly Don't Bother Me! – Greg Loeb, Cornell

The In the 2011 January issue of NYBN I mentioned two new invasive insect pests of fruit crops presenting problems for New York Berry Growers: the Brown Marmorated Stink Bug (BMSB) and the Spotted Wing Drosophila (SWD). I featured BMSB last issue so now let's consider SWD.

Spotted Wing Drosophila (SWD) (also known as *Drosophila zuzukii*) looks superficially like your every day Vinegar Fly *Drosophila melanogaster* of genetics fame (and my kitchen in the summer), but Vinegar Flies generally are not a serious economic threat to fruit growers. Female Vinegar Flies typically lay eggs in damaged and/or overripe fruit and hence, are mostly just a nuisance. On the other hand, female SWD have very robust ovipositors (the rear end portion of the fly used for egg laying) and will lay their eggs in ripe, marketable fruit leading to damage and contamination

with maggots (generally not desirable unless you are looking for extra protein in your diet).

As of the 2010 field season there has been no verified reports of SWD in New York, but it seems to be getting closer. SWD first showed up in California in about 2005 and has spread north into Oregon, Washington, and western Canada, south into Florida and recently has been reported at significant numbers in North Carolina and Michigan.

Research in the western US indicates that SWD attaches a number of fruit crops with brambles, blueberries, and strawberries perhaps particularly vulnerable because of their softer texture.

The first step to developing a management plan for SWD is to detect its presence. Simple cup traps baited with vinegar can be used to monitor for adults and although careful examination under the dissecting scope is required to identify

female SWD, males have diagnostically characteristic spots in the wings. Rufus Isaacs, Fruit Entomologist in Michigan, has a nice fact sheet for SWD that includes excellent photos and also a description of the trap [<http://www.ipm.msu.edu/SWD.htm>].

One interesting observation from the work being done in Michigan is that the abundance of SWD in traps dramatically increased late in the season, well past harvest.

We began monitoring for SWD in a few sites in the Finger Lakes in 2010 without any discoveries and hope to expand monitoring to more sites for 2011 depending on the availability of funding. Delegate insecticide [spinetoram] has a 2ee exemption for use on some fruit crops (bushberries, caneberries, grapes, pome fruit, and stone fruit) in NY for controlling SWD and I anticipate other materials being labeled as the pest becomes established in NY.

Variety Spotlight: Strawberries – Courtney Weber, Cornell University



'Clancy' Strawberry (Tested as NYUS304B) was released in 2003 by Cornell Breeding Program, Geneva, NY.

It was first selected in 1988 from a cross of MDUS4774 x MDUS5199 made in collaboration with the USDA breeding program in Beltsville, MD.

The fruit of 'Clancy' is a round-conical shaped with darker red color and good flavor. The flesh is very firm with good texture and eating quality and is especially good for freezing and making preserves.

Fruit should be picked at the bright red, early ripe stage for best flavor. Later harvest is possible due to the firm texture, but off flavors can develop, especially in hot

weather.

'Clancy' is darker red than 'L'Amour' and bears in late June with moderate yields. This makes it later than 'Jewel', with production into the late-season market that traditionally has been hard to fill because it is difficult to get a good eating berry that stays firm and holds up to hot weather.

The fruiting laterals are strong and stiff which keeps the fruit off the ground until they reach full size. This makes them less susceptible to the fruit rots that usually attack late-season varieties.

'Clancy' has good red stele resistance coming from its resistant parents and no significant disease or insect problems have been noted to date.

Best Use: 'Clancy' fits well in the market currently served by Allstar, a USDA variety released in 1981.

AC 'Wendy' was released in 2006 by the Kentville Research Station, Nova Scotia,

Canada.

It's a cross between ('Sable' x K91-2) and 'Evangeline'.

It produces large, wedge-shaped to conic fruit in the early season. The fruit is firm with bright red color and mild, good flavor.

'Wendy' is highly productive and holds fruit size throughout season. It is moderately resistant to powdery mildew and red stele and susceptible to verticillium wilt.

There is frost damage potential with 'Wendy', as with 'Earliglow', as it is very early flowering.

Best Use: 'AC Wendy' is best as a large fruiting early season variety in place of 'Earliglow'.



Dr. Courtney Weber is Associate Professor and Small Fruit Breeder in the Cornell University Department of Horticulture, Geneva, NY

Variety Spotlight: Blueberries – Cathy Heidenreich, Cornell University

'Duke' Blueberry is considered the best early season cultivar available and is the most widely planted early ripening northern variety.

Introduced in 1987, its parentage is (('Ivanhoe' x 'Earliblue') x ('Berkley' x 'Earliblue') x ['Coville' x 'Atlantic']).

'Duke' blooms late but ripens early which protects the blossoms from spring frosts.

It is a heavy, consistent producer with medium to large, firm, light blue fruit with a small scar.

Fruit size and quality is very

good but flavor can be bland if picked late.

Plants are upright with well-spaced canes. Branches may droop to the ground when heavily laden with fruit.

'Duke' ripens over a fairly short period and is suitable for machine harvest.

Frost tolerance and winter hardiness is good. Suitable for Zones 5-6.



Photo courtesy Bernadine Strik, Oregon State University



Cathy Heidenreich is Berry Extension Support Specialist in the Cornell University Department of Horticulture, Geneva, NY



About the Author:

Judson Reid is an Extension Associate with the Cornell Vegetable Program. He and his family grow high tunnel vegetables in Penn Yan, NY.

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"Alkalinity can be a problem in tunnels. As we must irrigate more often than the field, and have no leaching from precipitation, root zone pH will rise over time as bicarbonates accumulate."

Tunnel Talk

Irrigation Water and Alkalinity

Judson Reid, Extension Associate, Cornell Vegetable Program

Alkalinity can be a serious issue for tunnel growers. What is alkalinity? The quantity of bicarbonate, generally calcium bicarbonate, in irrigation water, measured in parts per million (ppm). High alkalinity is often (but not always) linked to high pH. Many groundwater sources in New York are high in alkalinity. This is not a problem for field production as precipitation is sufficient to leach bicarbonates and acid enough to counteract the alkalinity.

However in tunnels alkalinity can be a problem. As we must irrigate more often than the field, and have no leaching from precipitation, root zone pH will rise over time as bicarbonates accumulate. The high pH can then create nutrient deficiencies such as Iron, Manganese and Boron. Excess Calcium can create Magnesium deficiencies.

What can be done about alkalinity? The first step is to test irrigation water for both pH and bicarbonates with a digital meter. With these two figures we can then use an online calculator from North Carolina State (www.ces.ncsu.edu/depts/hort/floriculture/software/alk.htm) to calculate a quantity of acid to inject into our irrigation water. The two common acids are phosphoric and sulfuric. Choosing which one will depend on soil nutrient status, as the addition of acid will also add the respective nutrients to the soil. Thus a soil test is also required.

Organic growers can use citric acid, however there is no tool to calculate the quantity needed. A gradual addition of citric acid to the system while monitoring irrigation water pH is the common approach.

A few notes of caution-acids are dangerous materials! Observe all stated safety precautions. Modifying irrigation water with acid is a preventative measure, and cannot rapidly fix a soil based problem. The quantity of acid required is often very little. Small mistakes, such as an improperly calibrated injector, can lead to big problems. If you are new to this, ask for help. Many greenhouse flower growers have experience with acid injection.

Berry production systems where the tunnel plastic is removed will likely not have to worry about bicarbonate accumulation. For example, if half of a farm's annual precipitation came during the winter months when plastic is not covering the tunnel, root zone pH will likely not be affected by irrigation water alkalinity.

Growers can get started by testing their irrigation water pH with a portable meter. There are many models available online, or contact your local extension office for suggestions.

Raspberry Harvest Dates and Average Fruit Size 2009-2010 NYSAES, Geneva, NY, Haygrove High Tunnel Planting

Dr. Courtney Weber, Dept. Horticulture, Cornell University.

A rule of thumb for first bloom is 30 days prior to first harvest.

Notice the dates for 2010 were considerably earlier for the primocanes than the 2009 dates. This was due to early warm weather. I believe the floricanes varieties were also affected but by a lesser degree, probably 7-10 days compared to 19 or more days.

I believe the yield decrease in Polka and Jaclyn from 2009 to 2010 is due to their extreme desirability to potato

leaf hopper. No other varieties showed symptoms and it was especially bad in 2009, which I believe led to lower yields in 2010. They showed heavy symptoms in 2010 as well.

I expect floricanes yields to be higher in 2011 in the 2nd harvest season.

If I were planting I would plant Prelude, Canby and Encore for summer reds, Jewel and Mac Black for black raspberries and Autumn Britten, Himbo Top, Caroline and Heritage for the fall. There is a new very large fruited variety being released that may be available for spring planting that ripens later than Heritage. It has not been formally announced yet but if there is interest contact Dr. Weber, caw34@cornell.edu

Variety problems include small size in Prelude, low cane numbers in Canby and A. Britten (plant at higher density), small size and poor quality in Killarney, very poor flavor in Moutere, average flavor and hard picking in Titan, soft fruit and fire blight in K81-6, root rot susceptibility in Encore, Canby and Titan. Joan J is very dark and extremely firm (rubbery). Jaclyn is the hardest picking variety I have ever tested. Himbo Top is leggy and needs extra trellising. Polka and Jaclyn have potato leaf hopper problems. Heritage is small fruited and average flavored. Caroline is excessively vigorous.

I did not test Lauren. It is root rot susceptible and commonly shows winter damage.

I did not test Josephine because it was unavailable at the time of planting. The fruit quality is very good. The color is dark and it picks hard. It is late. Probably worth a look.

Floriscane 2010

Variety	First Harvest	Last Harvest	Mean Fruit Size	Yield (lb/A)
Prelude	Jun 14	Jun 30	2.4g	7,570
Canby	Jun 21	Jul 19	2.9g	7,610
Killarney	Jun 21	Jul 19	2.6g	9,920
Moutere	Jun 22	Jul 26	2.9g	10,240
Encore	Jun 24	Jul 26	3.7g	8,450
Titan	Jun 24	Jul 26	3.9g	6,800
K81-6	Jun 25	Jul 26	4.1g	9,920

Primocane 2009

Variety	First Harvest	Last Harvest	Mean Fruit Size	Yield (lb/A)
Autumn Britten	Aug 11	Sept 28	3.1g	6,790
Jaclyn	Aug 17	Oct 12	3.1g	10,400
Joan J	Aug 17	Oct 16	2.9g	13,270
Polka	Aug 18	Oct 8	2.6g	10,360
Himbo Top	Aug 18	Oct 16	3.0g	8,730
Caroline	Aug 25	Oct 16	2.5g	10,360
Heritage	Aug 28	Oct 16	2.1g	7,510

Primocane 2010

Variety	First Harvest	Last Harvest	Mean Fruit Size	Yield (lb/A)
Autumn Britten	Jul 23	Sept 1	3.0g	6,450
Polka	Jul 23	Sept 20	2.8g	8,410
Joan J	Jul 26	Sept 20	2.9g	13,920
Jaclyn	Jul 30	Sept 20	2.7g	4,290
Himbo Top	Aug 2	Sept 17	2.9g	9,520
Caroline	Aug 9	Sept 24	2.5g	10,950
Heritage	Aug 16	Oct 2	1.7g	9,630

TUNNEL TALK—(continued)

High Tunnel Production Manual Online

A revised version of the *Minnesota High Tunnel Production Manual for Commercial Growers* is now available online at <http://hightunnels.cfans.umn.edu/2010Manual/2010manual.htm>.

The manual, developed by the University of Minnesota, contains sections on risk management, high tunnel structures, crop production, cultural

practices and marketing.

Hard copies of the publication are not yet available, but individual chapters can be downloaded as PDF files.

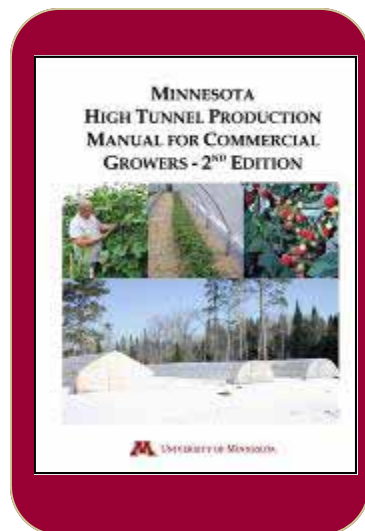
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"The occurrence of frost is an ongoing concern to berry growers in the Northeast."



<http://www.noaa.gov/>

FROM THE EXPO BERRY SESSION

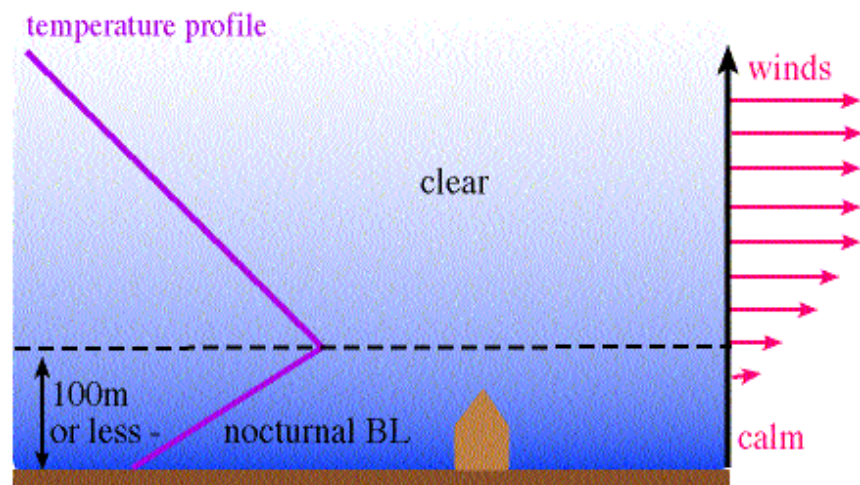
Weather 101: Understanding Frost

Art DeGaetano, Department of Earth and Atmospheric Science, Northeast Regional Climate Center, Cornell University, atd2@cornell.edu

The occurrence of frost is an ongoing concern to berry growers in the Northeast. On average across New York, the date of the last frost in spring ranges from mid-April in the New York City area, to early May in the Albany area and along the Lakes. In the Adirondacks the frost-free period does not start on average until late May. A more conservative guide is given by the date after which there is only a 10% chance of seeing frost. Across the state, this date ranges from around April 20th in the City to almost June 10th in the Adirondacks. Along the Lakeshores May 10th is the approximate date, with May 20th being the appropriate date in much of the Hudson Valley.

Meteorologically frost is defined as the condition that exists when the temperature falls below 32°F. In some cases, the fuzzy layer of ice crystals that most people associate with frost may be present. This is known as hoar frost. In other instances below freezing temperatures may exist without the formation of ice crystals. This depends on how humid the air is on a given day. Typical meteorological temperature observations are taken at a height of 2 m above the ground. Therefore it is possible that a grower may observe hoar frost, while the local meteorologist is reporting a temperature above freezing.

It is important to understand a bit of the physics behind the meteorological conditions that most often bring frost to our region. Frosts can be either radiative or advective. Advective frosts are referred to as freezes by the National Weather Service. These occur under windy conditions as below freezing air is transported into a region, usually from areas to the north and west of New York. Radiative frosts, are usually responsible for the last spring frost and therefore are of biggest concern to growers. These occur under clear and calm conditions. Clear skies and calm winds allow the atmosphere to cool from below. This creates a condition known as an inversion, in which temperature increases with height in the atmosphere. Thus the coldest air lies at ground level with warmer air aloft as shown in the figure below.



6 AM

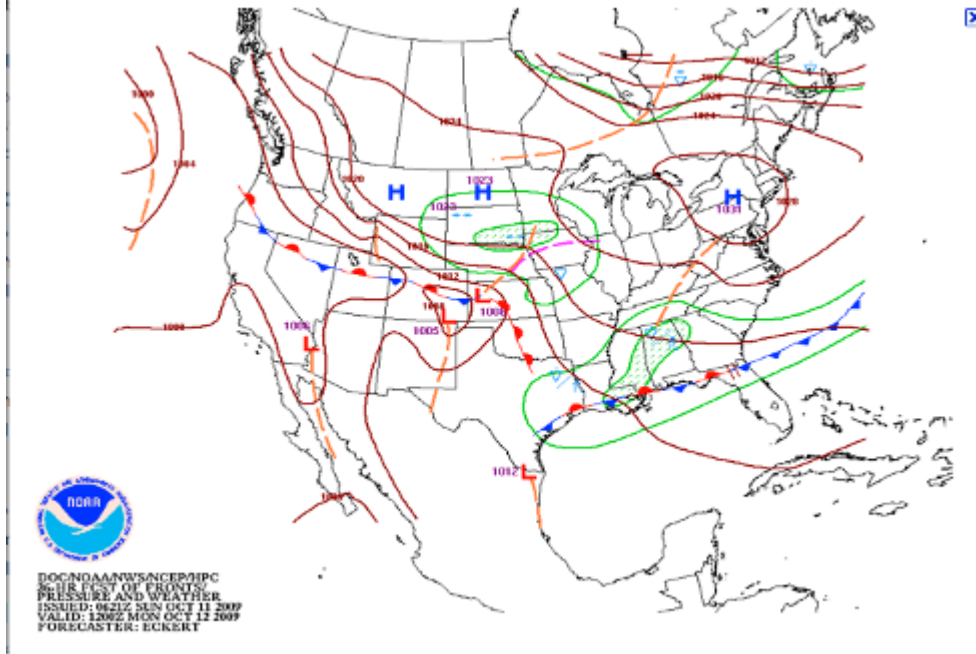
No **thermal turbulence**

Little/no **mechanical turbulence**

Example of a temperature inversion near the ground. Temperature is given by the purple line, with colder temperatures to the left in the figure. Inversions usually extend upward in the atmosphere from the ground to a height of 10-1000m. Most are 100m deep as shown in the figure.

Inversions are associated with fairly easily identifiable weather patterns. Most occur with large high pressure systems are centered over an area. The high provides the calm winds and clear skies that are necessary for an inversion to form.

FROM THE EXPO BERRY SESSION –(continued)



Weather map with a large high pressure system centered over central NY.

Not all inversions bring below freezing temperatures, so meteorologists must also consider the ambient temperature and humidity conditions when predicting a frost. A good rule of thumb is to look at the dew point observed during the evening hours. Dew points are reported in most weather observations and represent the temperature to which the air must cool before dew or (if the value is below freezing) hoar frost forms. On clear calm nights, the coldest air temperature is generally equal to the dew point.

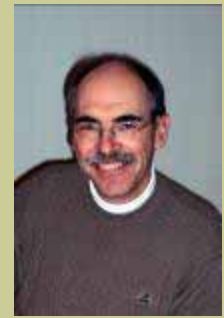
Since most inversions are shallow, with warm (above freezing) air existing just a 100 m off the ground, mechanical means of mixing the air above a grower's field can often be used to protect a crop from frost. Typical methods of mixing the air include wind turbines, helicopters and ground-based heaters. Irrigation can also be used as a means of frost protection, since the freezing of irrigation water releases heat to the surrounding air and vegetation. Row covers also provide some degree of frost protection. However, proper site selection, particularly in upstate New York where the topography and lakes provide both favorable and unfavorable microclimates, remains an important means of minimizing the risk of frost damage and crop loss.

As a final note, climate change is likely to deliver a mixed message in terms of the risk of frost to the berry and fruit industry in New York. Over recent decades, we have seen a marked trend toward earlier dates of the last spring frost. Indeed, the frost-free season has been starting earlier and earlier in the year and the overall length of the growing season has been expanding. Unfortunately, berries do not operate off the calendar. Rather, their critical phenological stages are driven by the accumulation of degree-days. In a warming climate, these stages are also reached earlier and earlier in the year. Thus, strawberries that typically bloom in mid-May may in the future be blooming in late April or early May. Thus the risk of frost damage may in the end remain unchanged or even possibly increase.

Strawberry Root Problems

James LaMondia, Connecticut Agricultural Experiment Station, Windsor, CT

Strawberry root problems, such as disease or insect feeding damage, can result in significant loss in plant vigor and yield. These problems may be difficult to diagnose and to manage as they occur in the soil, out of sight and easy access. Diseases such as red stele (caused by *Phytophthora fragariae*) and pythium root rot are caused by water molds. Red stele is a severe disease that can kill plants and may produce a diagnostic discoloration of roots (the red vascular tissue that results in the common name). *Pythium* spp. typically act as root nibblers and prune feeder roots, reducing plant vigor. Both can be managed by improving drainage and compaction to reduce standing water. Resistance to red stele is available in a number of strawberry cultivars. Verticillium wilts cause crown dieback from the oldest to the youngest leaves (which can be helpful in diagnosing this disease) and can result in plant death. It is



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"Strawberry root problems, such as disease or insect feeding damage, can result in significant loss in plant vigor and yield. These problems may be difficult to diagnose and to manage as they occur in the soil, out of sight and easy access."



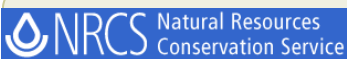
<http://www.ct.gov/caes/>

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"NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future."



<http://www.nrcs.usda.gov/>

FROM THE EXPO BERRY SESSION –(continued)

important to avoid rotation to solanaceous crops that can introduce or increase the fungal wilt pathogen in soils. Again, there are resistant cultivars available.

Lesion (*Pratylenchus penetrans*) and root knot nematodes (*Meloidogyne hapla*) are plant parasitic roundworms that infect roots and reduce plant vigor. Plant parasitic nematodes typically stunt but do not kill plants. *Meloidogyne hapla* can be managed by rotation with non-host crops such as small grains. Lesion nematodes have a much wider host range and can interact with *Rhizoctonia fragariae* to increase the severity of black root rot, a cortical root disease that is probably the most common and destructive root problem affecting strawberry. The cell death and cortical damage produced in roots by the lesion nematode increase *R. fragariae* infection of the senescing tissues, resulting in the black root rot complex. Lesion nematode numbers increase under rotation to most small grains, but rotation with non-host or antagonistic sorghosudangrass or millets can help reduce populations over time.

Root-feeding insects such as weevils and white grubs, can cause severe injury due to cutting and feeding, but do not increase black root rot as does the lesion nematode. *Rhizoctonia fragariae* is common on strawberry roots. Reducing lesion nematode numbers and other stresses may reduce black root rot severity. While they do not interact, the combination of root diseases such as black root rot with root loss due to insect feeding can result in dramatic losses in strawberry fields. We are currently researching and developing germplasm with non-preference for root weevil feeding and resistance or tolerance to *R. fragariae*.

**How to Determine Your Soil Type**

Marvin Pritts, Laura McDermott and Cathy Heidenreich, Cornell University

Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information.

Requirements for Running Web Soil Survey**Supported Web Browsers**

Web Soil Survey has been tested on the following browsers:

Microsoft Windows XP:	Internet Explorer 6.0, 7.0, and 8.0
Mozilla Firefox 3.0	Safari 3.1
Google Chrome 1.0	AOL Explorer 1.5
Microsoft Windows Vista:	Internet Explorer 7.0 and 8.0
Mozilla Firefox 3.0	Apple Macintosh OS X:
Safari 3.1	Mozilla Firefox 3.0
Camino 1.5	

Display Resolution

The optimal screen resolution for Web Soil Survey is 1024 × 768 or higher. The software has been tested and works correctly at resolutions as low as 800 × 600, but the lower the resolution, the more you will have to scroll.

JavaScript

To run Web Soil Survey, JavaScript is required. If JavaScript is disabled in your browser, the application simply will not work at all. You will see an error message in this case.

Cookies

Web Soil Survey maintains a session between the server and your browser. This requires that *session cookies* be enabled for the Web Soil Survey site. Session cookies are valid only for your current browser session. They are maintained only in browser memory, not written to your system's disk. If ses-

FROM THE EXPO BERRY SESSION –(continued)

sion cookies are not enabled, the application will end your session with a message saying session cookies must be enabled. If you would like Web Soil Survey to remember your preferences after the end of the current session, you must enable *persistent cookies* for the Web Soil Survey site (nrsc.usda.gov). Persistent cookies are written to your system's disk, for use when you return to a web site in the future. Web Soil Survey does not require persistent cookies, except for this feature.

Popup Blocker

By default, Web Soil Survey opens some content in an external browser window, specifically:

The Web Soil Survey home page

Links to other sites

PDFs created by **Printable Version** and "Get Now" in the **Shopping Cart** tab's **Checkout** form.

If you have a popup blocker configured, it will probably not allow this. If you wish to open these types of content in an external browser window, configure your popup blocker to allow popups from this site.

Alternatively, you can configure external content to open in the same browser window. Click the **Preferences** link in the navigation bar at the top of the page. Uncheck "Open Links and PDFs in External Windows" and press **Save Preferences**.


INSTRUCTIONS: Here's the link: <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>


Click on the green "Start WSS" button


Select address from the left navigation bar.

On the left side of the screen in the **Quick Navigation** panel, click on one of the selection methods. For example, open **Address**, type in the address of the desired location and click **View**.

Alternatively, open **State/County**, select your state and county, and click **View**.


After the map updates, click the **Zoom In** tool . Then click and drag a rectangle on the map to zoom to an area. Zoom in as close as you need to so you can see streets and landmarks you recognize.

After the map updates, click the **AOI Rectangle tool** . Click and drag a rectangle around the area of the map you wish to set as your **Area of Interest**. To stop in the middle of drawing an AOI and start over, when using the **AOI Rectangle** tool, press the **Esc** key *without releasing the mouse button*. To delete an AOI after drawing it, click the **Clear AOI** button in the **Area of Interest Properties** panel.

If the area you are interested in is not rectangular, you can use the **AOI Polygon tool** . Click points on the map to define your AOI. Double-click or CTRL-click the final point to finish. To start over when using the **AOI Polygon** tool, just press the **Esc** key. To delete an AOI after drawing it, click the **Clear AOI** button in the **Area of Interest Properties** panel.

The application will create the AOI you have specified.

Now you can navigate to the **Soil Map** or **Soil Data Explorer** tabs and start getting soil information.

Click on **Soil Map**. You will see the Soil Map for your AOI. Click the **Printable Version** button, and press **View** to create a PDF that you can download or print. For additional help, press the  question-mark icon in the **Printable Version** form.

Then, click the **Soil Data Explorer** tab. **Soil Data Explorer** tab contains five inner tabs:

Intro to Soils



Agro-One Soil Testing and Plant Foliar Analysis

<http://www.dairyone.com/AgroOne/>

Cornell Soil Health Test

<http://soilhealth.cals.cornell.edu/extension/test.htm>



Cornell Cover Crop Decision Tool

<http://calshort-lamp.cit.cornell.edu/bjorkman/covercrops/decision-tool.php>

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"Growing demand for local foods is presenting new opportunities for small-scale agricultural producers, but understanding the relative costs and benefits of different local foods channels is important to maximize farm performance."

FROM THE EXPO BERRY SESSION (continued)

Suitabilities and Limitations for Use (the default)

Soil Properties and Qualities

Ecological Site Assessment

Soil Reports

On the left side **Suitabilities and Limitations for Use** tab are a number of "Folders", which you can click to open. You can find the data you want most easily using the **Search** feature, at the upper left corner of all Web Soil Survey tabs.

Use the **Shopping Cart** tab to get your custom printable report immediately, or download it later.

Choosing the Right Marketing Channels for Small-Scale Fruit and Vegetable Producers

Matthew N. LeRoux and Todd M. Schmit, Department of Applied Economics and Management, Cornell University

(Editor's Note: If you would be interested in participating in a Market Channel Assessment, please contact the author, Matt LeRoux, Ag. Marketing Specialist, Cornell Cooperative Extension- Tompkins County, 607-272-2292) or mln28@cornell.edu.)

Growing demand for local foods is presenting new opportunities for small-scale agricultural producers, but understanding the relative costs and benefits of different local foods channels is important to maximize farm performance. Wholesale channels typically move larger quantities quickly, but usually at a lower price. Direct channels often have higher prices, but require more customer interaction. Farmers are faced with the decision of whether to move larger volumes of produce through wholesalers at relatively lower prices or seek higher prices in direct markets and run the risk of lower sales and unsold leftovers. In addition, for many producers, lifestyle preferences weigh as much or more in decision-making than profitability.

This article summarizes the results of a case study involving four small-scale diversified fruit and vegetable producers in central New York. We compare the performance of alternative marketing channels:

- Wholesale (restaurant, retail/grocery, and distributor)
- Direct:
 - community supported agriculture (CSA)
 - farm stand (unstaffed)
 - u-pick (staffed)
 - farmers' market

Channel-specific marketing labor and travel costs and sales data were collected during a typical peak-season week. A channel ranking system is used to weigh the factors of labor requirements, gross sales, net returns, and risk and lifestyle preferences across channels to provide insight into the collection of marketing channels that best fits a firm's objectives and preferences.

Gross Sales: To compare the volumes of multiple products moved through each channel, gross sales were evaluated (i.e., price x quantity). Despite lower prices, high volume channels offer the benefit of increased efficiencies in harvest and reduced odds of spoiled or unsold product. Gross sales are reported in Table 1 (column 2) as a ratio relative to farmers' markets sales (the lowest sales channel). Wholesale had the largest sales, about 3.4 times as much as farmers' markets, even with the lowest prices. CSA was a distant second and offered the same or slightly higher prices as wholesale.

Net Returns: Net returns focus on the price-cost differential for each channel. Here, net returns are calculated as gross sales less labor and travel marketing costs (Table 1, column 3). Expressed as a percentage of gross sales, the CSA was shown to have the highest net return percentage (i.e., net returns per sales dollar), followed closely by the unstaffed farm stand. As expected, percentage net returns were lowest for the wholesale channel.

Labor Requirements: While our participating farmers perceived that wholesale channels were more labor intensive than direct, the data showed otherwise. Labor hours per sales dollar are reported in Table 1 (column 4) as a ratio relative to the CSA channel (the lowest labor intense channel). Labor requirements for the wholesale channels were about in the middle of all channels evaluated, while the farmers' market and staffed farm stand had the highest labor requirements – over three times as high as the CSA.

Risk/Lifestyle Preferences: The two main reasons mentioned for avoiding channels were lifestyle prefer-

FROM THE EXPO BERRY SESSION (continued)

ences and stress. Wholesale channels created stress because of product consistency requirements, higher volume requirements, and risks of buyer rejection. Direct channels were perceived as relatively low stress, but concerns over poor sales and customer turnout risks were mentioned for all except the CSA. The risk rankings for our surveyed farmers are shown in Table 1, column 5.

Identifying Your Marketing Channel Strategy

Choosing the appropriate marketing mix includes consideration of all (or more) of the factors discussed above, and the relative importance of each factor is farm-specific. To address this, we estimate final channel scores by assigning scaled rankings across channels for each factor and then averaging them across all factors. The rankings are from 1 to 5, where 1 can be thought of as the 'best' and 5 as the 'worst' channel for that factor. Since some factors may be more important than others, we also compute weighted final scores based on weights assigned by the farmer. The final results are shown in the last two columns of Table 1. The lowest overall score is defined as the top performing channel; however, channels scoring low and close to each other provides some indication of preferred multi-channel strategies.

For our general case, the top performing channel was the CSA, including top rankings for net returns percent, risk, and labor requirements. Wholesale channels ranked in the middle. The farmers' market had the lowest overall ranking, although not the least profitable. That said, farmers' markets can still be a useful resource for farmers in terms of enhancing farm exposure and advertising for other channels utilized.

Changes in the rankings are evident when we assume differing weights across factors. In the example presented, more weight is placed on sales volume and less on perceived risks. In this case, wholesale improves its ranking, more readily suggesting a strategy that incorporates both CSA and wholesale channels. While the CSA appears to be the 'best' for these growers, optimizing sales of perishable crops requires the flexibility of combining different channels, and can be an effective way to have a ready market for all produce.

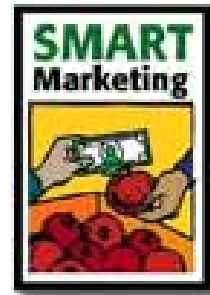
Table 1. Market Channel Evaluation and Ranking (4 case study Farms)

Market Channel	Gross Sales Index	Net Return Percent	Labor Index	Risk Index	Final Score	
					Unweighted	Weighted
CSA	1.7	87	1.0	1	1.7	2.1
Farm Stand (unstaffed)	1.3	82	1.5	3	2.8	3.0
Wholesale	3.4	58	1.9	5	3.4	2.8
U-pick w/Farm Stand (staffed)	1.5	62	3.4	2	3.9	4.2
Farmers' Market	1.0	67	3.0	4	4.3	4.4
Factor Weights	0.40	0.25	0.25	0.10		

Note: Gross Sales Index represents gross sales relative to the farmers' market channel. Net Returns Percent represents gross sales less marketing costs, as a percent of gross sales. Labor Index represents labor hours per sales dollar and relative to CSA. Risk Index is based on farm responses, from 1 (least risky/stressful) to 5 (most risky/stressful). Final scores are averaged scaled rankings across factors, either unweighted or factor-weighted.

New "Guide to Marketing Channels" Released

Market channel selection is as important as production decisions for the small to medium sized fruit and vegetable operation. The new "[Guide to Marketing Channels](#)" by Matt LeRoux, Agricultural Marketing Specialist on Cornell's South Central NY Regional Ag Team, is a decision-making aid for new farmers and for those considering marketing through a new channel. The guide focuses on the marketing of fresh-market produce, however many of the marketing principles apply other agricultural products such as cut flowers, meats, honey, maple syrup, and dairy products. While generalizations are made about the channels, exact details are subject to conditions with individual farms, their location, potential customer base size, and other factors. <http://cctompkins.org/sites/all/files/63/guide-to-marketing-channels.pdf>



"Wholesale channels created stress because of product consistency requirements, higher volume requirements, and risks of buyer rejection."





Leaf and soil tests on local berry farms: Lessons from summer 2010

Molly Shaw, CCE South Central NY Agriculture Team

This past summer we sampled soils and leaves for nutrients on many of the local berry farms, and the results taught us quite a few lessons. The highlights are reviewed here.

For perennial crops like berries, the standard recommendations are to assess their fertilizer needs on a yearly basis with leaf tests, and to use soil tests periodically mainly to check the pH. Leaf tests are considered a more accurate view of what the plant has managed to take in than soil tests. The soil represents the “potential bank” of nutrients that the plant *ought* to have access to, while the leaf test tells you what it *actually* managed to get. We’ve found that having *both* the soil and leaf test side-by-side is necessary to really tease out what’s going on with berry crop nutrients.

Reconciling soil and leaf tests

Ideally, the leaf test and the soil test would tell the same story. If the potassium level is low in leaves and also in the soil, simply follow the nutrient recommendations on one of the tests (or average them), and add more potassium in the fertilizer program. Similarly, it’s a no-brainer when calcium is low in the leaf test, low in the soil test, and the soil pH is 5.6—add lime according to the soil test and you’ll be good to go. **See figure 1.** The complications occur when the soil test and the leaf test seem to be telling a conflicting story.

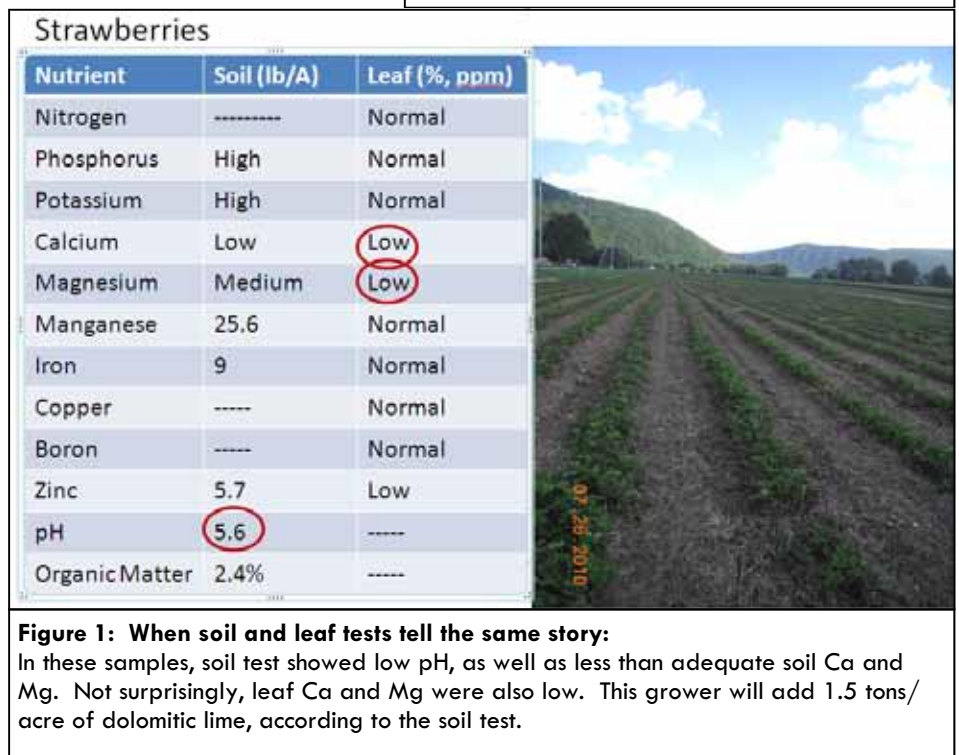
When soil tests low for a nutrient, yet leaves test normal

There are times when the soil test levels of certain nutrients may be “medium” or even “low,” but the leaf test levels of these same nutrients are normal. Normal leaf nutrient levels indicate that the plants are feeling well fed, despite the low soil levels.

First make sure that the leaf levels of the macronutrients (N, P, K, Ca, Mg) and boron are *all* adequate—that one low nutrient isn’t the key holding back the rate of plant growth. (“Low” leaf levels of Mn, Cu, and Zn are not so worrisome because we don’t have adequate research to determine what leaf level actually limits plant growth—keep reading below.) If leaf testing shows that the plants

How to take a leaf test:

Leaf tests are taken during the main growing season and consist of about 50 leaves. For strawberries, sample the first full-sized leaves regrowing after renovation. For blueberries, take leaves in full sun from the middle of this year’s growing shoot during or just after harvest. For raspberries, take the youngest full-sized leaves from primocanes before fruit is formed, in August. If you’ve used any sprays, you should wash the leaves in a dilute detergent solution, then rinse them with distilled water (use distilled so the water itself isn’t adding minerals to the sample). Leaves are then sent to the lab where are dried out and ground up, and analyzed for the nutrient levels they contain. Soil tests can be taken at the same time as leaf tests, or any time the soil isn’t frozen.



have adequate nutrients and the plants are growing well, no need to worry. Perennial fruits, unlike vegetable crops, can store nutrients within their bodies and have permanent root systems to scavenge in the soil. Believe the leaf test and don't add fertilizer that the plant doesn't need.

If the plants aren't growing vigorously but leaf tests show that the plants are getting adequate nutrients, you should look for something besides nutrients that is holding them back—winter injury, root rots, insect infestation, etc. Cyclamen mites on strawberries have been found to be more wide spread than previously thought, and are probably taking an invisible toll on strawberries yields at many farms. Plants whose growth is slowed by non-nutrient factors can find low soil nutrient levels adequate for their slow growth rate, while if they were growing faster, perhaps these same levels would not sustain their needs. **See figure 2.**

How can you know if your plants are growing "vigorously"? Particularly on the plant vigor end of things, it's hard to tell if your plants are smaller than they ought to be until you see a comparison. I learned a tremendous amount by simply visiting many different berry farms and comparing their plant health and their past management practices. As hard as it is in the height of the season, it's well worth a few hours to check out nearby berry farms.

When soil tests high for a nutrient, yet leaf test is low

Other times, the soil test can show adequate nutrient levels while one or more nutrients are low in the leaves. In this case, the puzzle is to determine what is preventing the plant from taking up the nutrient in the soil; adding more soil nutrient is not going to fix the problem.

1. Improper pH can make soil nutrients unavailable to plants. The classic example of this happening is when pH is too high for blueberries, leaf iron is usually low. Iron-deficient blueberries will show "interveinal chlorosis," green veins with yellowing between the veins. Blueberries are adapted to a low pH soil (about 4.5), and when pH creeps up two things happen that induce iron deficiency: 1) the higher the pH, the less soil iron is in a chemical form that the plant can use, and 2) within the plant itself, blueberries aren't very good at managing their iron supplies when calcium and nitrate are abundant as they are at higher pH's, so higher levels of Ca and NO₃

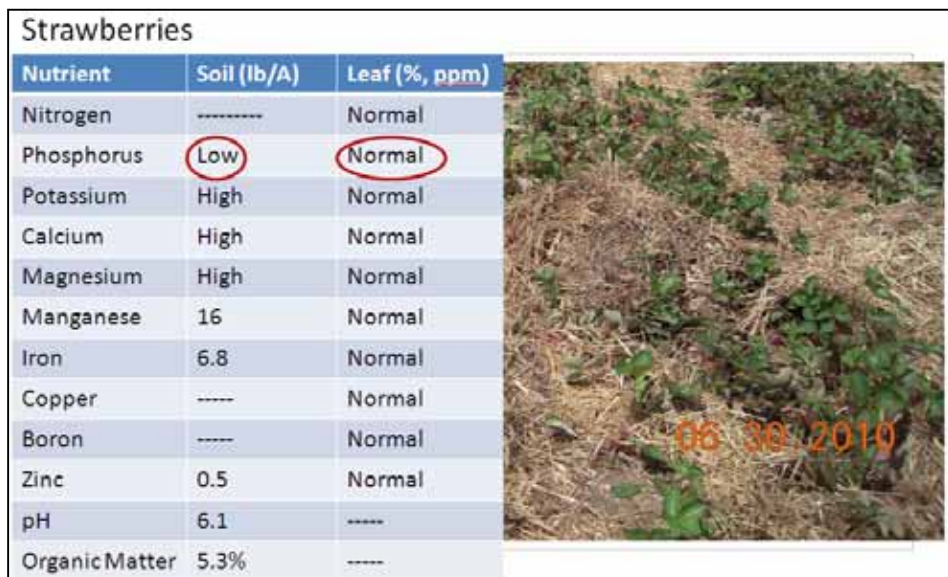


Figure 2: When soil tests low for a nutrient, yet leaf tests are normal: Phosphorus is low in the soil, yet adequate in the leaves—no phosphorus fertilizer is needed. These berries aren't particularly vigorous—in this case I think cyclamen mites are to blame.

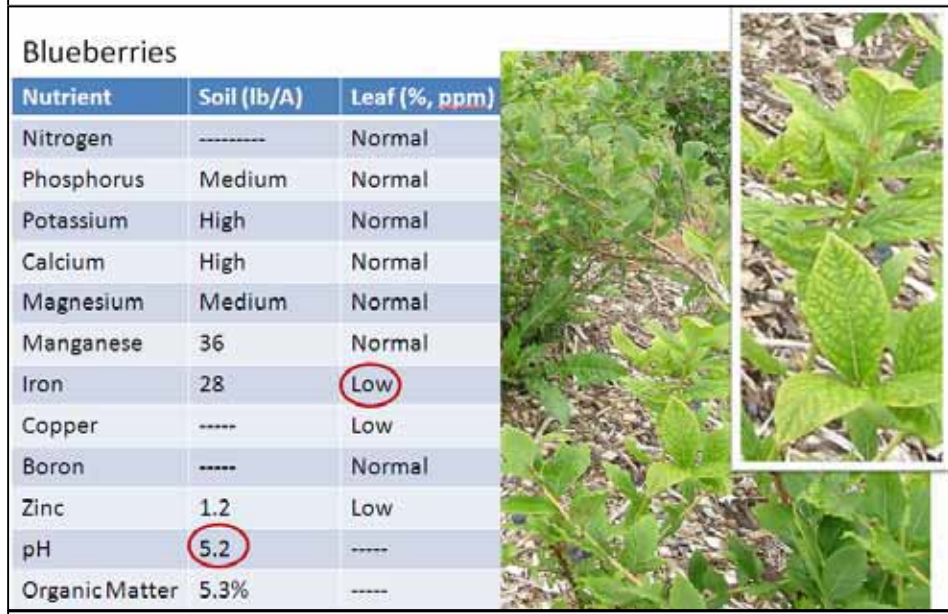


Figure 3: Improper pH can make soil nutrients unavailable to plants At 5.2, the pH is a bit too high for blueberries, inducing an iron deficiency. This grower will topdress with 200 lbs of sulfur each spring and fall until the pH comes down closer to 4.5 Adding sulfur faster than this runs the risk of burning plant roots. Two pictures illustrate the classic yellowing between the veins that you see with iron deficiency in blueberries caused not by lack of iron in the soil, but by the soil pH being too high.

interfere with blueberries' use of iron in their leaves. In blueberries, iron deficiency (as shown by the leaf test) is caused by pH being too high, not low iron levels in the soil. The solution is to lower soil pH with sulfur. See figure 3.

2. Drought can interfere with plant nutrient uptake. We saw this quite a bit in 2010 with calcium and strawberries. We saw several strawberry fields where pH was fine as were soil calcium levels, but leaf calcium was low. Calcium has to be dissolved in the soil solution to move into plant roots, so when water is scarce, the plant roots can't reach the calcium present in the soil. Same deal with blossom end rot on tomatoes and peppers. In 2010 in central NY we had a dry spell in July, and many times after renovation strawberries got a little neglected on the watering end of things. We saw the same thing with potassium—lack of water was limiting its uptake. The solution is to water after renovation! See figure 4.

3. Low boron. Boron is important for plant growing tips, including roots. When it's limiting, roots don't grow adequately and the plant can't reach the other nutrients that are present in the soil. In these cases, you can see adequate soil levels of a nutrient while the leaves still test hungry. Strawberries seem particularly sensitive to low boron, and many of the strawberry fields showed low boron in the leaf tests as well as the soil tests. In these fields, applying boron according to the leaf test will probably fix the other nutrient deficiencies.

Plants are fruiting. 2010 was a warm year, and raspberry season was advanced. We planned to sample fall-bearing raspberries in mid-August before fruit set, but this year fruiting came early, so we ended up sampling individual primocanes that didn't yet have any berries while other canes on the same plant were beginning to develop fruit. Berries have high K levels, so we see lower K levels in leaves as they feed developing fruit. By sampling a little late, when resources were being put to fruit, we got low K levels in leaves while we had adequate K in the soil. See figure 5.

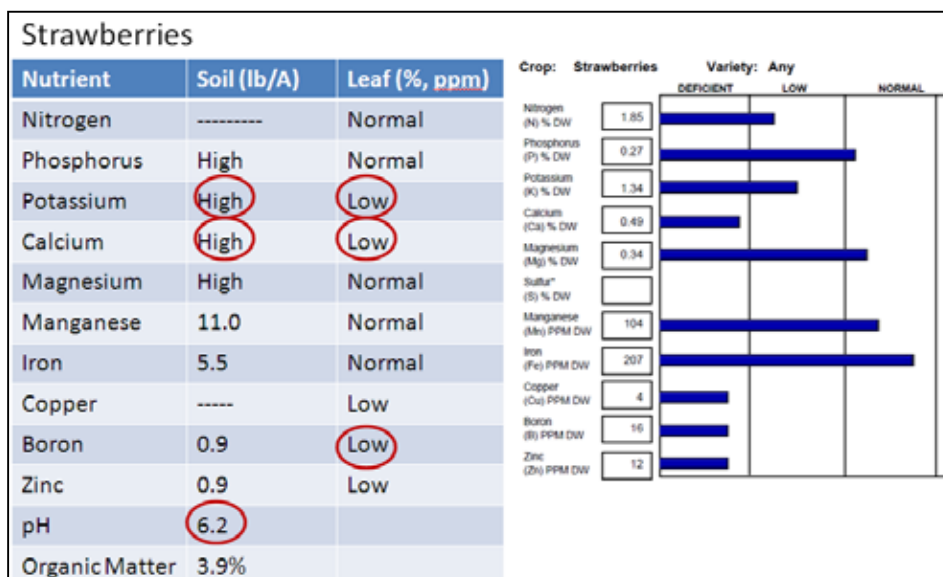


Figure 4: Drought can interfere with plant nutrient uptake Calcium and Potassium are low in the leaf test although soil levels are fine and pH is good. Low P and K are probably due to drought, though in this case boron is also low, and this could be limiting root growth. This grower will fall fertilize with boron (5 lbs/A solubor) according to the leaf test recommendations. In addition, this farm had been using 15-15-15 to fertilize strawberries, but since soil levels of P and K are high, they can switch to an all-nitrogen fertilizer like urea and save money.

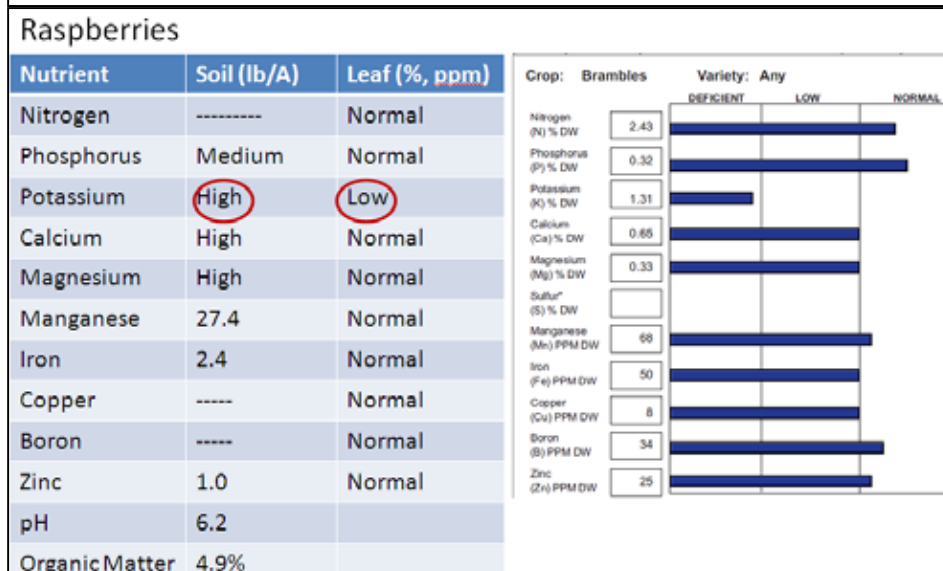


Figure 5: Plants are fruiting and sucking K from plant leaves Almost all the raspberry leaf samples we took in 2010 had low K in leaves, while soil levels were fine. Leaf samples are supposed to be taken before fruiting, but raspberry fruiting happened earlier than we expected in 2010 because of the warm summer. Developing fruit was pulling K from the leaves at the time of sampling, resulting in low K in the leaves. There is no need to fertilize with K when soil levels are high.

What about micronutrients?

Many of our leaf tests show low zinc and low copper. Soil tests report a number for Cu and Zn, but don't give an interpretation about whether that level is high, medium or low. Marvin Pritts, Cornell Berry specialist, says that research hasn't been done on berries to definitively determine what levels of Cu and Zn limit yield. That would take a study where micronutrient levels were varied and yield responses measured. The "adequate" levels have been determined by sampling extremely healthy plants, noting their micronutrient levels, and assuming that levels lower than those measured were "low". Leaf tests tend to recommend micronutrient applications to bring up levels of zinc and copper, but Marvin suspects that it's not worth the fertilizer investment in most cases. We saw plenty of berry fields in our survey whose leaf tests reported "low" levels of Zn and Cu but which were performing admirably, so at this time we recommend not worrying about reportedly low Zn and Cu levels.

It's worth it to soil and leaf test

Each farm's unique soil/leaf tests provide a different puzzle with different questions to answer. The observations above applied to several farms, and there were other scenarios besides these. Of the 14 local berry farms that did soil/leaf tests this summer, changes in fertilization practices were recommended for 12 of them. A soil test costs about \$16, leaf test \$24—\$40 well spent considering the value of your berry crop!

Many thanks to the NY Berry Growers' Association for partially funding this project.



Understand your Agro-One Soil Test Results

1. Check the crop and soil name

Agro-One uses the soil name and cropping plans you report on your submission form to generate fertilizer recommendations specifically for your field, so it's important that they're accurate. Look up your soil's name on the Web Soil Survey, websoilsurvey.nrcs.usda.gov/, and don't leave the future crop plan blank on the submission form. If you're not sure what you're going to grow, at least list "mixed vegetables" as the upcoming crop. Also remember that the recommendations are only as good as the sample you took in your field. Your sample should be composed of a mixture of at least ten 8-inch soil cores from around the field.

Soil Analysis Report

Agro-One Soils Laboratory
730 Warren Road Ithaca, NY 14850
Ph: 607-255-2897 ext. 2179
Fax: 607-257-1350
www.dairyone.com

Sample #: 70855040
Date Sampled: 6/5/2010
Date Received: 8/18/2010
Date Mailed: 9/9/2010

Crop, 3 Years Ago:
Crop, 2 Years Ago:
Crop, Last Year: Strawberries, Spring
Tillage Depth: Not specified
Manure: No
County: Tompkins
Field / Location: ETRAWB 2010
Soil Name: Castile
Acres:
Statement ID: Grower's name

Grower's name

Component	Mod. Morgan ppm	Mod. Morgan lbs/acre	Morgan Equiv. lbs/acre	Soil Test Levels				
				Very Low	Low	Medium	High	Very High
Phosphorus (P)	3	6	6	*****	*****	*****	*****	*****
Potassium (K)	61	123	21	*****	*****	*****	*****	*****
Calcium (Ca)	1,849	3,697		*****	*****	*****	*****	*****
Magnesium (Mg)	303	607		*****	*****	*****	*****	*****

Water pH	Calcium Chloride Buffer pH	No Till Buffer pH	Organic Matter (%)	Nitrate-N (ppm)	HWS Boron (lbs/acre)	Soluble Salts (mmhos/cm)	Total N (%)
5.8	5.8		4.1		0.0		

Other Nutrients, Mod. Morgan, lbs/acre								
Sodium (Na)	Aluminum (Al)	Sulfur (S)	Zinc (Zn)	Manganese (Mn)	Iron (Fe)	Copper (Cu)	Boron (B)	Molybdenum (Mo)
	78.1		0.5	18.8	8.8			

Soil Fertilizer Recommendations lbs / acre lbs / 1000 sqft

Year	Crop	Lime	N	P ₂ O ₅	K ₂ O	Lime	N	P ₂ O ₅	K ₂ O
1	Strawberries, Spring	2.0	100	30	30	91.8	2.3	0.7	0.7

Comments

Nutrient recommendations provided by Cornell University. These are general comments. Always consult with your crop advisor for recommendations specific to your farm. For assistance interpreting your report, contact your local Cooperative Extension office at 607-272-2292.
Yr1 Apply 80 lbs/acre of N in July, and another 20 lbs/acre the first of September. Do not apply N in early spring except on sandy soils.
Yr1 Apply fertilizer uniformly around the plants or through drip irrigation. Do not allow granules to remain on leaves. Do not fertilize when leaves are wet.
Yr1 The best time to apply potassium and phosphorus fertilizers is in the fall before mulch is applied.
Yr1 Use both a soil test and leaf analysis to adjust nutrient levels.
Yr1 Lime rate is for 100% ENV. To calculate actual rate: rate to use = recommended rate/ENV (of lime source) x 100.
Yr1 Apply lime only at bed renovation or during fall of year.

2. Look at the soil pH

pH is a measure of soil acidity and affects the availability of most soil nutrients. For most crops, a pH between 6.0 and 7.0 gives the best nutrient availability. If the pH is too high or too low, adding more fertilizer won't fix the resulting nutrient deficiency. pH must first be corrected by adding lime (to raise pH) or sulfur (to lower pH). Check the fertilizer recommendations at the bottom of the test to see the lime recommendation for your field.

pH details

pH can be measured using different methods, but for most samples, "water" extraction most closely mimics what plant roots feel, and you will see results in this category. "Buffer pH" is the measure the lab uses to calculate how much lime your particular soil needs, since heavy soils have more buffering capacity and need more lime to change their pH than sandy soils.

3. Major nutrients: P, K, Ca, and Mg

The soil levels are reported in pounds per acre (lbs/A) or parts per million (ppm). Notice that ppm x 2 = lbs/A, so it is easy to convert between units. The relative levels of the soil nutrients to the right of the lbs/acre results are the most important to notice, since the same nutrient lb/acre may be high for one soil type or crop while for another it is medium. "High" is considered to be a good level and may not generate a fertilizer recommendation. A "medium" level is considered to be adequate for the short term but nutrient supplementation may be recommended to maintain or build soil test levels for the future.

Excessive Nutrients

If you are growing fruits or vegetables, your soil nutrient levels will never be reported as "very high," which would be considered excessive. Be aware that Cornell's soil health group considers phosphorus levels above 50lbs/acre to be excessive and a risk of polluting water.

"Morgan" versus "Mod Morgan"

Agro-One will use one of two chemicals to extract the nutrients in your soil sample before they are measured, either "Morgan" solution or "Modified-Morgan" solution. Cornell field crops experts prefer the Morgan solution because it reports P levels that correlate more accurately with recommendation database when soil P is low, allowing for more accurate P fertilizer recommendations for field crops. For fruits, vegetables, lawns and gardens, the more economical Modified Morgan solution will be used because the nutrient recommendations are, in almost all cases, identical to those based on the Morgan test.

Estimating soil-supplied N

You can expect 10-20 lbs of plant-available nitrogen to be released during the growing season per percentage organic matter, depending upon temperature and moisture.

Remember that past cover crops, manures and composts contribute nitrogen.

4. Nitrogen. Nitrogen is not routinely reported on soil tests because it cycles quickly between chemical forms (ammonium, nitrate, nitrite, organic N), and is very sensitive to weather changes and leaching. Measuring nitrate-N (using a pre-sidedress nitrogen test) gives a snap-shot of plant-available nitrogen on the day the soil was sampled, but does not predict the season-long nitrogen supply. The lab can measure total N in a soil sample, but the interpretation of the resulting number is not clear. Therefore, the nitrogen recommendation at the bottom of the test is not dependent on your soil test. Rather, it is the amount of nitrogen normally applied to grow the crop you listed on the submission form. Some field samples reduce the N recommendation when you list legumes as previous crops on your sample sheet, but fruit and vegetable samples do not. Neither does the recommendation reflect the inherent N-supplying capacity of your soil, which is closely related to organic matter.

5. Organic Matter. The organic portion of the soil, though a small percentage of the whole, is critical for healthy soil function. High organic matter feeds soil microbes and leads to good soil structure, nutrient cycling and retention, improved water holding capacity, and other perks. Low organic matter means soil organisms are hungry and less active, leading to less nutrient cycling and a structurally degraded soil. How much organic matter a soil is capable of maintaining depends largely on the soil texture (inherent to the soil) and on past tillage (management). Soil organic matter increases, albeit very slowly over many years, with compost/manure applications, long term cover crops, and reduced tillage.

Soil Organic Matter (%)

	High	Medium	Low
Sand	> 3.2	2.3-3.2	1.8-2.3
Silt	> 3.3	2.6-3.3	2.2-2.5
Clay	> 4.5	3.2-4.5	2.6-3.1

From Cornell's Soil Health Manual

6. Other nutrients: Na, Al, S, Zn, Mn, Fe, Cu, B, Mo. Agro-One routinely reports only Al, Zn, Mn, and Fe, but does not interpret the results as "high, medium, or low." The other nutrients can be tested upon request, for an additional fee. For fruit crops, the normal soil range for most of these nutrients is unclear, and B is best assessed with a leaf test. For vegetables only Zn and B have established levels. Soil test levels of Fe, Al and Mn are more useful for diagnosing a toxicity problem than for informing fertilizer recommendations. If $Mn + Fe + Al = >150$ lbs/acre, plant toxicity could result.

Zn and B levels for most Veg crops (lbs/A)

	High	Medium	Low
Zinc	> 1.0	0.5-1.0	<0.5
Boron	> 0.75	0.35-0.75	< 0.35

Fertilizing small areas

For areas less than an acre, you can convert the recommendations to fit your needs.

There are 43560 ft²/A

7. Fertilizer recommendations: Seen at the bottom of your test results, these are generated by the Cornell Recommendations Engine using the major nutrient results above. They are reported in pounds of actual nutrient, *not pounds of fertilizer*. For instance, 10-10-10 (N-P-K) fertilizer is only 10% nitrogen by weight, so to apply 100 lbs of nitrogen, you need $100/0.10 = 1000$ lbs of fertilizer. In this example you also get 100 lbs P and 100 lbs K, which you may or may not need. Choose nutrient sources that minimize over-applying nutrients that you have in ample supply.

8. Comments: These are important to read, as they will contain nutrient recommendations beyond lime and N-P-K, as well as instructions on application timing.

9. Why do I have blank boxes? Some tests are not routinely done but are available upon request—if not requested, these boxes will be blank. Calcium chloride is sometimes used as an extractant to measure pH in very sandy soils. No Till pH focuses on the pH in the top inch of soil, since all nutrients and herbicides are applied to the soil surface. Soluble Salts is generally used as a diagnostic tool if road salt injury or high salinity due to fertilizers is suspected. Na, S, Cu, B, and Mo can be requested for an additional fee, see "other nutrients" above. If the major nutrient soil test levels chart or the fertilizer recommendations are missing it is because the soil name or this year's crop was missing on your submission form. Call the lab and make the correction.

10. More information: Soil science is complicated and this fact sheet only scratches the surface. For more information, see the Cornell Nutrient Spear Program's extensive fact sheet collection at <http://nmsp.cals.cornell.edu/guidelines/factsheets.html>

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CYCLAMEN MITES ON STRAWBERRIES. . . Molly Shaw, Southern Tier Ag Program

Last spring a question came up during a phone call with berry extension specialists around the state—How prevalent are cyclamen mites in our strawberry fields? Summer 2010 presented a perfect chance to find this out in the southern tier. Since we were out taking soil and leaf tests for another project, I simply took another set of leaf samples on strawberry farms to examine for cyclamen mites.

Cyclamen mites are microscopic arthropods (technically not insects, just as spiders are not insects) that hide out in plants and make their living by sucking on plant cells. Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) has a good fact sheet with pictures, <http://www.omafra.gov.on.ca/english/crops/facts/cyclam.htm>. In the past cyclamen mites have been considered a minor pest of old strawberry fields that ought to have been removed anyway. But in 2010, we found them with surprising frequency in young strawberry fields.

Cyclamen mites live in the crown of the strawberry plant, so you can usually only find them on the newest not-yet-unfolded leaves. Pick a leaf, gently spread it out, and look for almost-microscopic white graininess down by the leaf base. On heavily infested leaves I could see these white grains without a hand lens, but none of the farmers could. To reliably diagnose them you need a good hand lens, and I found a dissecting microscope came in very handy when finding small populations. My typical practice was to pick 25 baby leaves from each strawberry variety and examine them under the scope back at the office.

Strawberry plants heavily infested with cyclamen mites will be stunted with deformed leaves. Interestingly, we found those symptoms on only a handful of plants on a couple farms, while nearly every farm had cyclamen mites on symptomless plants. In fact, of the 8 strawberry farms we sampled, only one was free of the cyclamen mites.

What was even more surprising was that plants just planted in spring 2010 had cyclamen mites, sometimes as high as 40% of the leaves had mites, but typically they were at a somewhat lower level (10-20%). This suggests that the mites were coming with the plants from the nursery—and most of the growers were using quite reputable nurseries!

So what? You can't see them, customers can't see them, and I just said that it's hard to tell if you even have them by visual symptoms! The threshold for when their sucking activity takes a toll on the plant isn't completely agreed upon. In California, 1 mite in 10 new leaves is considered a potential problem, while Manitoba uses 1 infested leaf in 15 as their threshold for treatment, with the added clarification that when you get to 45-65 mites per leaf it can cause a 1/3 yield reduction. These mites reproduce quickly, from egg hatch to adult in 2 weeks when conditions are right, and females don't need males to lay viable eggs. With this type of exponential growth, going from a couple mites to the levels that cause 33% yield reduction can happen really fast! Besides yield reduction, the mites can cause general reduced vigor and winter hardiness, compounding problems for the poor plant. Cabot is a variety that some growers love and others can't quite get to perform well after the first year, and coincidentally Cabot had some of the highest mite levels. Could the challenge with Cabot really be a cyclamen mite challenge at it's root?

What can you do if you have cyclamen mites? That's the problem, once you have them it's really hard to get rid of them since they reside way down in the protected crown of the plant. Endosulfan, a strong insecticide, is the only in-field treatment labeled in NY, and the label will end in 2016. It's supposed to be applied after renovation when the leaves have been mowed off, with high pressure and at least 200 gallons of spray/A. Anecdotally, growers haven't found even this treatment to be very effective. *Editor's Note: [Portal Insecticide/Miticide \(EPA Reg. No. 71711-19\)](#) has 2(ee) label for use on cyclamen mite in strawberry in NYS. See label for details.* Usually the best thing to do for a serious infestation is to start over with clean plants.

But clean plants from where? This year we found disturbingly high levels of cyclamen mites on 2010 plants, which suggests that they might have come infested from the nurseries, and reputable nurseries at that. Hot water dips for dormant crowns used to be recommended (110 F for 30 minutes, with tight control on the exact temperature achieved), but varieties are different in their heat sensitivity and many new ones haven't been tested.

This is one of those areas where we don't have enough information. Ideally nurseries would have techniques in place to assure that they're shipping clean plants, but that's easier said than done. More research is needed to establish where the infestations are coming from and to find environmentally sound controls. In the mean time, take a look at your plants this spring, bring leaf samples to your local extension office where you can use a microscope to examine them, and check out the fact sheet mentioned above for excellent pictures of what you're looking for. The first part of the solution is identifying the problem.



Cyclamen Mite
(*Phytonemus pallidus*)
Adults, eggs, and nymphs



**Cyclamen Mite Damage on
Strawberry**



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NYBN/](http://www.fruit.cornell.edu/NYBN/)

New York Berry News is a monthly commercial berry production newsletter provided by Cornell Berry Team members.

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

BUDGET ISSUES AND COMMERCIAL BERRY PRODUCTION–(continued from page 1)

http://www.governor.ny.gov/contact/Gov_ernorContactForm.php

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Senate committee assignments have not been made at this time. They will be

posted at <http://www.nysenate.gov/newsroom> as soon as they are announced.

Please also send it to your own State Senator and Assemblyperson. You can find their addresses at:

<http://www.nysenate.gov/>

<http://assembly.state.ny.us/>

Effective Political Communications: Tips for Expressing views and Requesting Support for Specific Actions - Jack Rabin, Rutgers Source: Cultivating Cumberland, March-2011 Vol. 16, Issue 3

- Use farm stationary - This sets your letter apart from the piles of form letters your representatives receive daily. If you do not have stationary, be sure to provide your address, phone number, and email with your signature.
- Keep letters brief - Keep your letter to one side of one page. Your representative and especially their staff only have a short time to read mail. By keeping your letter to one page, you will hold their attention. If your letter is about a bill, refer to it accurately, e.g., House bill: H.R._____, Senate bill: S._____.
- Keep letters focused - Stick to one major issue or problem. The subject of your concern will be easier to remember and respond to if it is not buried by a list of concerns. Avoid complaining. State personal experiences or credentials you have regarding the subject of your letter.
- Show a constituent interest - Tell your representative how the matter is important, how it will personally affect your farm, and other voters you know.
- Request the action you want taken - Clearly state if you want support for or against a particular legislative action, policy, vote or regulation.
- Ask for a response - When closing, thank your representative for their time reading your letter. Officials receive large volumes of letters. Do not expect a response, and only politely request a reply if your concern requires.
- Addressing Correspondence - There are several correct forms of address for a Member of Congress including "The Honorable" and "Representative."