



Berry Notes

Prepared by the University of Massachusetts Fruit Team

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Massachusetts Berry Notes Underwriters:



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GENERAL INFORMATION

UPCOMING MEETINGS

REGISTER NOW FOR THE 2007 NEW ENGLAND VEGETABLE & FRUIT CONFERENCE AND TRADE SHOW

This biennial event will take place December 11, 12, and 13 at the Radisson Hotel in Manchester, NH. The program features 27 different half-day sessions on topics such as strawberries, blueberries, brambles, apples and grapes, as well as tomatoes, sweet corn, pumpkins, leafy greens, and many other vegetables. In addition, there will be sessions on organic production, renewable energy, soil health, weed control, and season extension. In between these sessions are 'Farmer to Farmer' discussions focused on topics like: crop planning, cucurbit disease management, greenhouse tomatoes, cultivation equipment, cut flowers, garlic, and organic Sweet corn. The trade show features over 100 exhibitors. Pre-registration to attend the conference and trade show is just \$70 for the first member of the farm or business and \$40 for each additional member (family or employee) when pre-registered with first member. The fee for students (high school or college) is \$30 each when pre-registered by the instructor. Pre-registration must be received by November 30, 2007. There is an additional fee of \$10 per person for late registration or walk-ins. (check or cash only if registering at the door). The complete conference program and registration form are on-line at www.newenglandvfc.org or call me for a printed copy of the conference brochure. If you need overnight lodging, be sure to make hotel reservations soon. The Conference takes place at the Radisson Hotel, (603) 625-1000, www.radisson.com/manchesternh. The rate for conference attendees is \$97 per night plus 8% tax; mention "vegetable conference" to get this rate; the deadline is November 18, 2007. Just down the road is the Hilton Garden Inn, (603) 669-2222, www.hiltongardeninn.com. A limited number of rooms are reserved for conference attendees at

\$119 per night plus 8% tax. Again, mention "vegetable conference" to get this rate; the deadline is November 19, 2007.

STRAWBERRY

Winter Mulch for Strawberries

Sonia Schloemann, UMass Extension

An important fall job in commercial strawberry production is mulching. Strawberries are commonly grown in cold climates, such as the northern US and Canada, but the strawberry plant itself is actually quite vulnerable to cold injury. Research has shown that, without mulch, strawberry crowns can suffer damage at temperatures below 12°F and unprotected strawberry plants can suffer desiccation damage from drying winter winds. A protective mulch can protect strawberries from cold by providing insulation, and from desiccation by providing a barrier against drying winds. Mulches will also protect plants from injury caused by soil heaving, which results from freezing/ thawing cycles during the winter. So, a key to consistent quality strawberry production in cold climates is in protecting the plants from severe temperatures or temperature swings through the practice of mulching.

Production systems can also affect the need for mulching. Plants on raised beds, for example, are more vulnerable to cold and desiccation injury than plants in level plantings, especially in locations that are exposed to strong winter winds. Annual production systems, such as fall planted plasticulture, may utilize less hardy or disease susceptible cultivars. As we will see, mulching practices must adapt to these new systems.

When should the strawberry grower plan to apply mulch?

Research suggests that a good timing guide is to apply mulch after three consecutive days with a soil temperature of 40°F or below. This soil temperature usually occurs after multiple frosts, and when the plants have slowed growth in response to cooler

temperatures. It is best to apply mulch before the soil freezes solid. In New England mulches are applied in late November.



What is a good mulch material?

The traditional mulching material for strawberries in New England is straw. Straws from wheat, rice, oats, or Sudan grass work well. Straws coarser than Sudan grass are not recommended. Straw should be clean, free from weed seed, and contains a minimum of grain seed. Strawberry growers can produce their own straw, often cutting the straw before the grain seed is viable. Store straw for mulching in a dry area. Occasionally, grain seedlings can become a weed problem the following spring; an application of sethoxydim will give good control.

How much mulch should be applied?

A traditional, level matted row planting will require 2.5 to 3 tons of straw per acre for a 2 to 3 inch deep mulch, or about 300 small bales of average weight. Raised bed plantings and sites

with strong wind may require twice this amount for adequate coverage.

How is the mulch applied? Smaller plantings may be mulched by hand by shaking out the bales of straw over the row. Larger plantings often use bale choppers to break up the straw bales and distribute the straw over the bed. Choppers are available for both small bales and large round bales.



How and when is the mulch removed?

In the spring, when plants begin to show growth under the winter mulch (new green tissue), the mulch should be raked off the rows to allow sunlight to penetrate and reach the foliage. Delaying removal will delay plant growth and flowering and may reduce yield. Mulch can be raked off by hand with ordinary yard rakes in smaller plantings. In larger plantings, various mechanical tools

are available ranging from modified hay rakes and tedders to equipment specifically designed for the purpose.



Floating row covers as mulch. These covers are composed of a plastic such as polypropylene, spun-bonded into a fabric that is permeable to light, air, and water. Research and growers' experiences demonstrate that these covers are useful for winter protection of strawberry plantings. While floating row covers are available in several weights, only the heavier weights are recommended for winter protection. At present a widely available weight recommended for winter strawberry protection is 1.25 oz/yd² (42 g/m²). A

variety of fabric widths are available, with common widths ranging from 15 feet to 60 feet. This material currently costs about 4 cents per square foot. With proper care, this heavier fabric should last 3-4 seasons. Floating row covers are widely used to protect annual plasticulture plantings.

Row covers are best applied on still days. Be sure to line up sufficient labor to place the row cover. If possible, use wider widths for more efficient application. The row cover edges must be anchored, as must areas where two covers overlap. A variety of methods are used to anchor the edges. Edges may be anchored with posts, rocks, or tube sand. The edges may also be covered with soil.

Once the mulch is in place, the job is not done for the winter. Monitor the planting frequently. If straw has blown off areas, replace at once. Watch the edges of row covers, and adjust anchors if needed. Repair any rips or holes as soon as possible.

Any reference to equipment or product brand names does not constitute endorsement over like products or equipment.

RASPBERRY

Raising Premium Fruit

Debby Wechsler, North American Bramble Growers Association

At New York City's Greenmarket in Union Square, people line up to get Jack Torrice's raspberries on Saturday morning. They pay \$6.00 for a half pint. Sometimes they buy a lot of them. Jack says that when one man who usually bought a dozen instead bought thirty, he asked him about it. "I just really like raspberries," the man said. Though the market runs 8 am until 6 pm, Jack always sells out by 11:30. Chefs call him up to find out when he will start coming.

Why the fuss? Jack Torrice raises greenhouse raspberries. His raspberry harvest season starts in mid-April and finishes in mid-June, about two weeks before the field-grown raspberries from New Jersey and Pennsylvania start to come into the Greenmarket. Raspberries are all he's allowed to sell there; although he also has flowers at that time of year, this well-established, popular farmers'

market only gives out new spaces based on products needed, and they already had plenty of flower growers.

Jack and his wife, Martha, farm in Oswego, NY, a six-hour drive from New York City. The main crops at Fruit Valley Orchard are tree fruit – they have about 60 acres of apples, pears, and cherries— plus a couple of greenhouses of flowers. Everything sells locally except the raspberries; he could never get that kind of price in Oswego.

A few years ago, diversifying, he planted about a fifth-acre of raspberries for PYO. Then, after he heard a talk on greenhouse raspberry production at a NY growers conference, he bought Cornell's *Greenhouse Raspberry Production Guide* (see box), and gave it a try. "They are a lot more fun to grow indoors," says Jack.



In early April, the berries are just starting to ripen in the greenhouse. Orange twine supports the plants. Photo by Dena Fiacchino.

He started three years ago with one 20 x 72 greenhouse and 128 raspberry plants, putting them in 3-gallon pots, with a



A few weeks later than in the photo to left, in late April or early May, plants are much taller and berries are being harvested. Photo by Dena Fiacchino.

soiless potting mix and drip irrigation.

The following year, he moved the plants to a 30 x 90 greenhouse, and increased to 180 plants. Last year, he had divided some of these and had 305 plants in two 30 x 90 greenhouses; he will add another 45 plants to fill them up this year. About

stored at the recommended 37 degrees. When he sells, Jack does not distinguish between berries picked almost a week ago and those picked the day before the market. Says Jack, “Often people say that they just finished the ones they bought last week – and those berries are almost two weeks old.” The berries are big and with those little stems, sometimes people even think they are strawberries.

At the peak of the season, it takes two people about 5-6 hours to pick all the fruit. Clipping the berries is a little slower than regular picking, but, says Jack, “We have it down to a science.” So far, they’ve been able to do most of the picking with just family labor. At full production (which will increase since the plantings are increasing), he’s taken up to 350 half-pints to the market. The fewest half-pints he’s taken has been 30, but since the Torrices have a son on Long Island, they could drop by the market that day on their way.

Jack has no doubt that he is making money with the raspberries; though the freeze damage last winter cut into his production severely last year, he still did better than break even. Certainly he’s enjoying growing and selling them. His customers’ enthusiasm must be inspiring and help make that long drive worthwhile.

four-fifths of the plants are Tulameen and the rest are Titan.

In late June, the plants are moved outside, where they stay until they receive their requisite 800 chilling hours. Then, Jack moves them into the greenhouse and fires up the heat, and they break dormancy in a few weeks. Usually they have fulfilled their chilling requirement by January first, though last year it was so warm, they didn’t meet this requirement until the end of January, which threw the harvest season off. And last year, the Tulameen plants suffered major cold damage when the weather dropped to 12 degrees before Christmas. In hindsight, he says, he should have moved the plants indoors, but he hadn’t expected it to get that cold, and it is a *lot* of work to move all those pots. The Titan plants weren’t affected.

Jack buys a box of bumblebees for each greenhouse for pollination, carefully screening off the fans so they don’t get chewed up. He has not had to spray for pests or diseases in the greenhouse, but notes that if a problem happens in the greenhouse, it can get out of hand in a hurry. One year, spider mites started to build up, but it was at the end of the season, so after he took them outside, he sprayed them with dormant oil.

Jack starts picking on Sunday for next Saturday’s market. The secret of success for this extended shelf life is that all the fruit is harvested with the calyx intact: the berries are clipped from the plant with scissors instead of being pulled off the plant. The stems are cut very short so that they don’t poke holes in other berries. The fruit are harvested directly into clamshells and then

Resources

Greenhouse Raspberry Production Guide, Dept. of Horticulture, Publication 23, by Kurt Koester and Marvin Pritts, 38 pages.

The online version can be viewed or downloaded at www.fruit.cornell.edu/Berries/bramblepdf/ghrasp.pdf.

To order bound copies, send a check for \$9.50 (payable to Cornell University) to: Dept. of Horticulture

Attention: Max Welcome

134a Plant Science Bldg.

Cornell University

Ithaca NY 14853-5904

From www.fruit.cornell.edu/Berries:

Winter greenhouse raspberry production has many advantages for northern growers, including:

- Little to no domestic competition.
- Retail price is between \$3.00 and \$6.00 per half pint.
- Greenhouses are often empty between December and April.
- Farm labor is generally underutilized in winter.
- Raspberries grow best at cool temperatures.
- Raspberries do not require supplemental light to produce fruit.
- Raspberries can be produced in greenhouses without pesticides.
- They can be harvested close to market at the peak of flavor.
- Quality is superb.

(Source: *The Bramble*, Vo. 22, Issue 3, Autumn 2007)

Response of Erect Blackberries to Improved Water and Nutrient Management

Charlie O'Dell, Extension Horticulturist Emeritus, Crows Nest Farm, Blacksburg, VA

A few years ago we planted an acre of newer varieties of erect blackberries including thornless varieties Apache, Arapaho, Navaho, Chester and Ouachita, and thorny ones including Shawnee, Kiowa and Chickasaw. The planting was made on old recycled plasticulture strawberry beds after which pumpkins had been grown, followed by sweet corn, so these beds had been succession-cropped four years--two in strawberries, one in pumpkins, one in sweet corn. Plant nutrients for succession crops had been supplied via fertigation through the drip irrigation lines based on soil tests of the beds before each succession crop, and on our experience with succession plantings on plastic mulch.

After spraying beds with Round-Up vegetation killer herbicide two weeks earlier, old plastic mulch, tattered and torn, was hand removed, as were the old drip lines. Blackberry tissue-culture plug plants were set into the undisturbed beds using hand bulb setters to make planting holes every four feet apart in-row, one row per bed. Every other bed was planted to provide ten feet between rows. Under each plug plant about two teaspoons of three-month, slow-release Osmocote 14-14-14 was hand placed, then covered with about one-half inch of soil to prevent direct contact of young, tender plant roots with the fertilizer pellets. Twice during that summer at six-week intervals, one-eighth cup of 10-20-20 granular fertilizer was side-dressed on the uphill side of plants (beds are on the contour of this hillside site). In the second and third years in early springs we side-dressed 300 pounds/acre of 10-20-20 fertilizer on the uphill side of the beds 4 to 6 inches away from plant stems.

Ram 17 heavy wall drip line tubing with fused-in emitters spaced every two feet apart was placed on each bed top about three inches from plants on the uphill side of each row. Frequent timely rains that first summer and the next eliminated the need to hook up and use the drip irrigation system. In hindsight, those rains apparently lulled us right to sleep! The third spring we had a drought of over six weeks duration beginning just as plants began to wake up and make new spring growth, lasting well into bloom time. During bloom earlier side-dressed fertilizer was still somewhat visible on top of the beds and unavailable to the plants.

Like all growers during spring months, we were very busy with many enterprises including strawberry frost control in other fields, finishing up blueberry and seedless grape pruning, raspberry fertilization and trellis construction, asparagus planting, and on and on. No thought was given to irrigating the blackberries this early in the season, assuming (assumptions will get you

every time) that "heck, blackberries are tough as weeds, they'll be fine."

An abundant blackberry bloom period occurred during this extremely dry period, especially bountiful on the vigorous variety Apache. We had visions of canes soon to be loaded with big, tasty, juicy, sweet blackberries! But suddenly pollinated blooms began to abort along with very young fruit, even though bees and native pollinators were abundantly present. We made almost no crop that summer, with Apache especially the hardest hit. Surprise! Cultivated, high yield blackberries are not a crop for arid desert conditions! We searched high and low for something to blame, but there was no one but us. We checked with other blackberry growers in Kentucky and North Carolina, with plant breeders, horticulturists and with growers at the annual North American Bramble Growers Association winter conference. Several growers in other areas also experienced the same dry spring conditions and reported similar plant response, especially with Apache plants. Soil and plant tissue analysis in early summer showed that our levels of phosphorous, potassium and calcium were low in both soil and plants--not surprising since side-dressed fertilizer was still right there unused, unavailable, sitting on top of the beds where it had been placed at least six weeks earlier.

We then quit the search for the culprit, finally accepting the reality that it was us, and so we went to work, vowing to avoid future moisture stress on the blackberries: We hooked up the drip irrigation system already in place and actually began to use it on a regular basis.

We began to irrigate the blackberries as we have always done with blueberries and primocane raspberries: at least twice a week when rains do not come, especially during bud, bloom and fruit development, then all summer long. Also, we began an intense, supplemental foliar feeding that includes calcium phosphite, potassium, and a plant bio-stimulant from seaweed extract along with very small amounts of nitrogen, applied with an air-blast sprayer every two weeks throughout the growing season.

The plant response was immediate! With regular, more constant soil moisture, plants could begin to extract fertilized soil nutrients previously unavailable to them on the dry beds. Supplemental light foliar "spoon feedings" of soluble plant nutrients twice monthly plus the catalyst effect of the bio-stimulant enhancing nutrients absorption and utilization and the resulting plant growth, kept us busy summer topping and pruning! Senescence of stems and leaves was delayed, and we wondered if all this verdant succulent growth might reduce winter hardiness or overly delay fall hardening off of the plants. So, in very early October of each year, we now stop irrigating. We also only

foliar feed potassium, twice during October, to help harden and toughen plant cells in preparation for winter dormancy.

This past spring provided the opportunity for the real test: We were hit once again with a very prolonged dry spring, and also with very extended cool weather compared to our averages. We kept day/night temperature records this spring, noting we did not get a 60 degree F. night temperature here until June 5! At first sign of new spring buds and leaves on the blackberries, we began to drip irrigate regularly, also applying supplemental foliar feed twice monthly. Again we had a very abundant and extended bloom season; the Apache plants and all varieties were covered with blooms. What a picture! This time they all "stuck", with no abortions or drying up of very young fruit. We enjoyed a very good crop of large, sweet berries from late July until late September over all of the varieties. Apache was a very heavy yielder of very large berries, so we feel we have learned, finally, how to manage these newer varieties for profitable production into the future.

Summarizing the two main management points necessary for success:

- 1 Uniform, regularly applied soil moisture maintenance from early spring, and continuing all summer long;
- 2 Good soil-based plant nutrition has been further enhanced with regular light foliar feedings that include all plant nutrients in the program to balance the normal pattern of heavier spring nitrogen applications.

With plant nutrients and soil moisture working together as a symbiotic team, water and nutrients requirements are met and maintained, resulting in little or no plant stress from these factors. The payoff is in bountiful fruit, healthier plants, and extended harvests. Because better water and nutrients management have worked so well for our blackberries, we began using this same program on all our U-Pick crops including blueberries, all blackberries and primocane raspberries (we retired from strawberries) as well as with our fresh-picked asparagus and seedless grapes. So, bring on those three-berry cobbler pies and ice cream! (*Source: Virginia Vegetable, Small Fruit and Specialty Crops Newsletter, November-December 2005; Volume 4, Issue 6*)

BLUEBERRY

Fall Blueberry Concerns

Gary Pavlis, Rutgers University

Lime Sulfur: I have recommended the use of lime sulfur for Phomopsis control. The fall application should go on when 2/3 of the leaves drop. Some growers have balked at using this material because of its corrosive nature. A grower from Massachusetts wrote to me and says he has a solution to this problem. He says that, "before applying the lime sulfur, I first spray the tractor and sprayer with a light oil and then the lime sulfur comes off when I wash the equipment after application. What works best, believe it or not, is "PAM", which is a combination of vegetable oil and lecithin, which are biodegradable and therefore not the environmental hazard that motor oil would be. Generic brands of this cooking oil are cheaper and are equally effective. I can cover my equipment with 3-4 cans for a total of about 6-7 dollars." Sounds like a good idea to me. I wouldn't want to do this for a weekly spray but lime sulfur is applied just once in the fall and once in the spring.

Roguing: Roguing of diseased bushes should be progressing. This is important in all varieties but should be done with extra care where blocks of Bluetta or Weymouth are located close to Blueray or Bluecrop. In the Pemberton area where there is still an appreciable acreage of Rancocas, varieties adjoining this old variety should be carefully inspected. In such situations there seems to be a more rapid spread of stunt disease. The

Rancocas is very resistant to this virus disease but it is susceptible and may be a source of the disease without showing symptoms vividly. After many years of harboring the disease some Rancocas bushes are now clearly exhibiting stunt symptoms. All old plantings of Rancocas should be carefully rogued. Remember to spray diseased bushes before removing them. It is necessary to kill the leafhoppers and it is more efficient, more economical, and wise from the standpoint of conservation of beneficial insects to spray individual bushes rather than entire fields.

Disease Identification: A few growers have asked me to provide them with information so that they are more able to identify the typical blueberry diseases such as Alternaria, anthracnose, Phomopsis, botrytis and mummy berry. I should just explain that the ability to positively identify a disease comes largely from experience. I once spent a few days looking at thousands of plants and tagging those with stunt while I was working on my masters degree in Arkansas. This experience was very early in my career and I accompanied Dr. Jim Moore from Arkansas and Dr. Al Stretch, USDA Pathologist. As a result of this experience, I have never forgotten what stunt looks like. This experience was invaluable and a grower who is not sure about disease ID should invite someone to his field who can spend some time and help him with identifications. This ability is critical in the choice of cultural and pesticide decisions.

Another aid to Disease ID are extension publications. The Highbush Blueberry Production Guide has photos and

descriptions that will be of great value in disease ID. Also, Michigan State produces one called 'Blueberry Diseases in Michigan', Extension Bulletin E-1731. Write Michigan Cooperative Extension, Michigan State University, East Lansing, MI 48824. There is also the new Compendium of Blueberry and Cranberry Diseases. This is an excellent resource for growers and researchers alike. This manual is produced by the American Phytopathological Society, 3340 Pilot Knob Road, St. Paul, MN 55121-2097. It should be realized that there are many times where disease ID is impossible without the help of their cooperative extension office in these cases.

Dr. Marvin Pritts, Cornell University has developed a Webbased diagnostic tool to help the grower/educator determine what might be wrong with their berry plants - from pest injury to herbicide injury to nutritional deficiencies. By answering a series of questions about symptomology, one is led to a possible cause. The site uses lots of photographs and can be very useful. To access the site, go to <http://www.hort.cornell.edu> or <http://www.fvs.cornell.edu> and select "Resources." Then select "Berry Diagnostic Tool."

Nut Sedge: I visited a farm infested with nut sedge with our Weed Specialist last week and picked up a few things that maybe useful to growers fighting this weed. You may recall that I have recommended Sinbar for the control of this weed. Actually, I stated that Sinbar will do a good job if applied at the maximum rate but only on high organic matter soils. Applications are made as late as possible because nut sedge germinates about May 1. A combination of Solicam and Sinbar will result in early suppression by Sinbar until July 4th, and then Solicam will kick in. The grower I visited last week did all this and still has a major problem. Dr. Brad Majek, our weed specialist, pointed out that Sinbar is very soluble and will not work when a trickle irrigation system is present, i.e. trickle + nut sedge = Roundup in early August. In addition, growers who have trickle systems would get better weed control from their herbicides if they would limit water applications in early spring when herbicides are first applied and are present. It actually might be a good idea to place the trickle tube at a 6 inch depth since herbicides work primarily in the top 6 inches of soil. Doing this may greatly decrease weed problems with trickle irrigation. (*Source: The Blueberry Bulletin, October 17, 2005 Vol. XXI, No. 21*)

GRAPE

Postharvest Vineyard Work

Alice Wise, Cornell Cooperative Extension

Though the season is winding down, there are still a number of vineyard jobs, some requisite (removal and storing of bird netting) and some to ponder (read on).

- **Postharvest fertilization** – This topic merits a chapter in a book. Postharvest applications of lime as well as nutrients such as potassium, calcium, boron and other micronutrients are routinely done and may save valuable time in the spring. Postharvest application of nitrogen is dicier. Common sense dictates that a functioning canopy and warmer soils facilitate the taking up of nutrients in the fall. This is particularly important with nitrogen as nitrogen, above all others, is prone to leaching. Postharvest application of nitrogen therefore would be most appropriate for earlier ripening varieties such as Chardonnay.

- **Postharvest weed control** – At first glance, this strategy seems wasteful. However, now that a couple of zillion tiny seedling weeds are apparent, there may be some wisdom in this. As long as labels permit usage, knocking down seedling populations may pay dividends in the spring, especially for those of us who are perennially late with spring weed control. Cultivation would be another option.

- **Powdery mildew postharvest spray** –Grape pathologist Wayne Wilcox expounds on the need for postharvest disease control, an often disagreed upon subject. New infections will show up on younger leaves

in the top half of the canopy. *IF* this situation applies to you and *IF* you anticipate significant opportunity for additional photosynthesis before frost, a sulfur application *MIGHT* be beneficial to maintain optimum leaf health. Alternatively, an application of JMS Stylet Oil could be used to eradicate recent infections and reduce the number of overwintering spore bodies that they form. However, once these overwintering spore bodies have formed (about 1 month after leaf infections are visible), it's too late to do anything about them until next year. Lime sulfur (calcium polysulfide) applied to the vines in the spring prior to budbreak helps to knock back overwintering inoculum, but this is an unpleasant task and not routinely recommended.

For those who had significant powdery mildew fruit infection and are interested in reducing inoculum for next year, remember that nearly all of next year's inoculum comes from this season's *leaf* infections. So, if the fruit were hammered but leaves were clean, there should be no effect on increased inoculum just because the fruit were diseased.

- **Downy mildew**-- Only new leaves will get infected. Also, downy mildew becomes much less active once night temperatures get down into the 40's and 50's. Probably not worth it under normal conditions.

- **Other diseases: Black rot**--No benefit from postharvest sprays. **Botrytis**--No benefit from postharvest sprays. **Phomopsis**--No benefit from postharvest sprays. Lime

sulfur before budbreak can help in vineyards with a history of serious Phomopsis infections.

• **Copper sprays to control downy mildew and “shut down vines”** – See downy mildew comments above. It is true that copper is phytotoxic to leaves, particularly copper without spray lime as a safener and/or under slow drying conditions. Repeated applications of copper are known to reduce vine size in Concord. If

the goal is to shut down vine growth and help with the hardening off process, then vineyard management practices should be thoroughly examined first. If vines are so vigorous postveraison and postharvest (egads!), then there were problems with excess nitrogen and/or irrigation. A lack of proper periderm (bark) development may be due to overstimulation, vine stress (nutrient/water/disease), virus diseases or overcropping. (**Source:** *Long Island Fruit & Vegetable Update*, No. 29, October 2005)

Upcoming Meetings:

November 26, 2007- **Berry Crops Weed Workshop**, Albany County Extension Office, 24 Martin Road, Voorheesville, NY 12186, 8 am—12:30 pm, Cost: \$10/person. For more information call: (518) 765-3500 or Email: Albany@cornell.edu

Nov. 27, 2007 - **High Tunnel Conference** Hamden, N.Y., For more information, contact Extension Educator Janet Aldrich at 607-865-6531 or email: jla14@cornell.edu.

Dec. 11-13, 2007 - **New England Vegetable and Fruit Conference**. Manchester NH. See page 1 for more detailed information or go to <http://www.nevbc.org/>

December 14, 2007 - **Growing and Marketing Greener: Greenhouse Growers and Retailers**. Sturbridge Host Hotel, Sturbridge, MA. Topics include organic certification requirements for greenhouse ornamentals, principles of organic growing media and fertilizers for greenhouse production, biocontrol and pesticides for organic greenhouse growers, using biofungicides for diseases in greenhouses, choosing and using biodegradable pots, recycling plastics - film and containers, using biofuels, energy conservation, seasonal thermal storage, solar options and a panel on organic products for retailers. 3 pesticide credits
Sponsored by University of Massachusetts Extension, University of Connecticut Cooperative Extension System and Northeast SARE.
Contact: Tina Smith, UMass Extension 413-545-5306 or tsmith@umext.umass.edu.

Jan 15 – 17, 2008. **NJ Annual Vegetable Meeting** at the Taj Mahal in Atlantic City. For more information contact Mel Henninger at henninger@aesop.rutgers.edu .

Jan. 29-31, 2008. (A berry triple header!)

Mid-Atlantic Fruit and Vegetable Convention, Hershey Lodge and Convention Center, Hershey, PA. For more information Contact William Troxell, 717-694-3596.

Annual meeting of the North American Strawberry Growers Association will be held in conjunction with the Mid Atlantic Fruit and Vegetable Convention (above), and the National American Bramble Growers meeting (below). For more information: see news brief below or contact Kevin Schooley at kconsult@allstream.net or visit www.nasga.org.

NABGA Annual Bramble Conference will be in Hershey, Pennsylvania in association with the Mid-Atlantic Fruit and Vegetable Convention and the North American Strawberry Growers Association. For more information contact: Debby Wechsler, 1138 Rock Rest Rd. Pittsboro, NC 27312, nabga@mindspring.com .

Feb 7-9, 2008. **Pennsylvania Association for Sustainable Agriculture (PASA) 17th Annual Farming for the Future Conference**. Penn Stater Conference Center, State College, PA. For more information visit www.pasafarming.org .

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