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Berry Notes

Prepared by the University of Massachusetts Fruit Team

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Current Conditions:

Strawberry fields remain quiet at this time of year. Dayneutral varieties are still fruiting. Annual production or plasticulture fields will be planted soon. Late summer and early fall is a good time to fertilize both new and established strawberry fields. Leaf tissue analysis can help guide fertilizer amounts but typically strawberries will need 20 – 50 pounds of nitrogen at this time of year. Amounts depend on how much was applied at renovation and the organic matter content of the soil. Check new fields for evidence of potato leafhopper burn and evaluate older fields for the level of foliar diseases. **Highbush Blueberry** still underway. Wet weather this summer has caused higher levels of fruit rot. See more on this below. Survey fields for weak bushes and determine whether or not Blueberry Stunt may be the cause. Only non-nitrogen fertilizer applications should be made this late in the season. **Summer raspberry** harvest is done. Be on the lookout for Orange Rust on black raspberries and blackberries. **Fall raspberries** is in full swing. Botrytis fruit rot is still a threat, especially during wet weather. Also check for mites and leafhopper damage. **Grapes** are in veraison (berry coloring). Early table grape varieties (e.g., 'Lakemont', 'Himrod', 'Vanessa', 'Reliance', 'Canadice') may be harvested at the end of the month. Scouting for disease and insect levels and taking corrective action are still important activities now. Prepare for wine grape harvest by checking fruit ripening parameters regularly. Mite infestations can build up quickly at this time of year. Be sure to check the underside of your leaves.

– 2008 New England Small Fruit Pest Management Guide –

This guide has been extensively updated and is now available for purchase for \$12 plus \$4 shipping and handling. Orders (including credit card purchases) can be placed via the UMass Fruit Team website at <http://www.umass.edu/fruitadvisor/fruitsubscriptions.htm>. (Scroll down for links to pest mgt guides.)

ENVIRONMENTAL DATA

The following growing-degree-day (GDD) and precipitation data was collected for a two-week period, July 23, 2008 through August 5, 2008. Soil temperature and phenological indicators were observed on August 5, 2008. Accumulated GDDs represent the heating units above a 50° F baseline temperature collected via our instruments from the beginning of the current calendar year. This information is intended for use as a guide for monitoring the developmental stages of pests in your location and planning management strategies accordingly..

Region/Location	2008 GROWING DEGREE DAYS		Soil Temp (°F at 4" depth)	Precipitation (2-Week Gain)
	2-Week Gain	Total accumulation for 2008		
Cape Cod	319	1,677	78°F	3.40"
Southeast	302	1,694	79°F	6.30"
East	289	1,730	73°F	1.00"
Metro West (Waltham)	358	1,713	75°F	3.30"
Metro West (Hopkinton)	n/a	n/a	n/a	n/a
Central	288	1,583	67°F	5.08"
Pioneer Valley	280	1,652	74°F	5.85"
Berkshires	315	1,739	76°F	4.48"
AVERAGE	307	1,684	75°F	4.26"

n/a = information not available

(Source: UMass Extension 2007 Landscape Message #20, August 7, 2008)

STRAWBERRY

North American Strawberry Growers Summer Tour: Aug. 20-21, Ohio

Debby Wechsler, NASGA

The best way to learn about berry production is to visit farms and talk to other growers. Berry growers can do both during the 2008 NASGA summer tour in central and northern Ohio on August 20 and 21.

This year's tour includes 10 Ohio farms and markets that specialize in strawberries, blueberries, raspberries, and vegetables. At each stop, growers can learn by observing and discussing the farming techniques found here in Ohio.

Specialists from Ohio State University will join the group at various points to discuss latest research and extension initiatives.

Among the farms to be visited are the Champaign Berry Farm, in Mutual, which has more than 27 acres of raspberries; The Blueberry Patch & Café, in Lexington, said to be the largest blueberry grower in the state; Polter's Berry Farm, in Fremont, with 13 acres of

strawberries among other crops on the 2,000 acre farm; Holthouse Farms, in Willard, a grower of salad vegetables; Jacquemin Farms, in Dublin, which sells much of their produce in their own farm market; Robert Rothschild Farm, in Urbana, which features pick your own crops, as well as their own café; and Fulton Farms, in Troy, where strawberries and vegetables are grown for retail and wholesale markets.



The headquarters hotel for the North American Strawberry Growers Association tour will be the Drury Inn at the Convention Center in Columbus. Tours will then proceed by bus to the respective Ohio farms. For further information, visit the website at <http://www.nasga.org>, or call executive director Kevin Schooley, at (613) 258-4587. Register NOW to guarantee a spot on the tour.

RASPBERRY

Botrytis Gray Mold Control in Fall Raspberries

Annemiek Schilder, Michigan State University

Gray mold, caused by the fungus *Botrytis cinerea*, is one of the most important diseases affecting fall raspberries. Fall raspberries are usually at greater risk of infection than summer raspberries because of the prevailing weather conditions, such as lower temperatures, heavy dews and frequent precipitation. Cool, wet weather and heavy rains in the late summer and fall that keep the plants wet for extended periods are conducive to development of the fungus and infection of the fruit. The rainy weather this summer has already resulted in increased Botrytis gray mold pressure in raspberries.

Typical symptoms include a brown discoloration of the fruit and the presence of a gray fuzzy mold, which can rapidly develop and spread to neighboring healthy berries. Symptoms tend to be more severe inside the canopy and on clusters that are closer to the ground. Even if berries look perfectly healthy at harvest, they can change to a moldy mass within 24 to 48 hours.

Botrytis cinerea is a ubiquitous fungus, which is able to grow and sporulate profusely on dead organic matter. It overwinters in old infected canes and plant debris. The spores are airborne and can travel long distances on the wind. When the spores land on plant surfaces, they germinate and can invade the plant tissues directly or through wounds. Overripe berries and bruised berries are particularly susceptible to infection. Latent flower infections, even though they do occur, are not as important in raspberries as they are in strawberries.

Cultural methods are very important for control of Botrytis gray mold. Choosing a site with good air flow can reduce humidity in the canopy considerably. Low-density plantings, narrow rows and trellising can also

reduce a buildup of humidity. Good weed control and moderate fertilizer use to avoid lush growth are also important. Selecting a resistant cultivar or, at the minimum, avoiding highly susceptible cultivars will help to reduce the need for control measures. During picking, avoid handling infected berries, since spores can be transferred on hands to healthy berries. Timely harvesting and rapid post-harvest cooling can also help to reduce losses to Botrytis gray mold.

Several fungicides are labeled for control of Botrytis in raspberries. Fungicide sprays during bloom are important to prevent pre-harvest infections, while post-harvest infections can be reduced by sprays close to harvest (e.g., the day before harvest). Switch (cyprodinil + fludioxonil) is a reduced-risk fungicide with excellent systemic and protectant activity against gray mold. It has a zero-day pre-harvest interval (PHI). Another good option is Elevate (fenhexamid), which is a reduced-risk, locally systemic fungicide with a zero-day PHI. Since these fungicides are in different chemical classes, they can be alternated for fungicide resistance management. My recommendation is to save Switch and Elevate for critical sprays, e.g., during wet periods and for sprays closer to harvest. Other fungicides that may be used in the spray program are Captevate (captan + fenhexamid) (three-day PHI), Pristine (pyraclostrobin + boscalid) (zero-day PHI), Captan (captan) (three-day PHI), Rovral (iprodione) (zero-day PHI) and Nova (myclobutanil) (zero-day PHI). To improve the efficacy of Rovral, an adjuvant should be added. Pristine and Nova also provide excellent control of late leaf rust, which sometimes infects the leaves and fruit of fall raspberries. (*Source: Michigan Fruit Crop Advisory Team Alert, Vol. 23, No. 15, August 5, 2008*)

BLUEBERRY

Heavy Crop Load with Small Leaves – Why?

Kathy Demchak, Penn State University

Flower bud initiation in blueberries is influenced by many factors including cultivar, daylength, temperature, thickness of fruiting wood, and time of year that the fruiting wood formed. The flower buds for this year's crop were initiated last summer and fall, so everything that determined the flower bud to vegetative bud ratio on fruiting wood happened last year. The only thing that growers can do in the current year is adjust pruning practices to decrease the cropload, and adjust other cultural practices to try to encourage new cane and shoot growth.

If a very heavy cropload remains on the plant after pruning, the plant will try to mature the crop. Berries on very heavily cropped plants are small, and ripen slowly. The plants probably will mature the crop, but will do so very slowly. Since the leaves do the work of producing the sugars for the berries, and there were few leaves relative to the amount of fruit to ripen, plus little new vegetative growth, there just isn't much sugar to go around. Often the plant tries to conserve resources by producing less vegetation, and the plant declines. So, would these blueberries get into a biennial bearing cycle, as happens with fruit trees, or does

the stressed plant just continue to fruit? My own observation is that ‘Bluecrop’ does not give itself a rest. Luis Valenzuela, a Ph.D. student here in the department, looked at this question, and found that ‘Bluecrop’ plants that produced a heavy crop in one year still produced a heavy crop the next year. Other cultivars may be different.

So, what should you do at this point? Next year’s (and future years) crops are being determined right now, which is why we’re discussing this in the summer, so it’s important to keep the plants as healthy as possible in order to encourage them to produce vegetation. This means keeping them watered, controlling leaf-feeding insects, and keeping existing foliage healthy by minimizing diseases (i.e., don’t let the tomatoes and pumpkins make you forget about your blueberries after harvest). It’s getting a little late for applying nitrogen fertilizers, however. In order to have a “heads-up” for what might happen next year, take a look at your blueberry canes this fall. You should be able to tell what your fruit bud to leaf bud ratio is like (flower buds will be plump-looking, and leaf buds will be narrow).

Then, when you’re doing your dormant pruning this winter, be ready to make some adjustments, quite likely pruning heavier than you have in the past. You will need to make different adjustments for different cultivars. Among Northern highbush cultivars, ‘Bluecrop’ in particular has a tendency to overcrop, and in our cultivar trial in Luzerne County, it appeared that ‘Bluegold’ also could form a very heavy cropload relative to the amount of foliage. Then take a close look, and make sure that you are removing enough

flower buds. Some detail pruning to remove flower buds may also be in order. After that, pay attention to fertilization (you may need to increase nitrogen rates somewhat), and mulch and water to encourage new growth.

Now, what can you do if you just can’t seem to get the plants back into balance? Well, I had some ‘Bluecrop’ plants that I’d struggled with for five years or so, and they just would not send up new canes. I figured they were taking the slow train to the hereafter, and decided to speed up the process. So, we whacked them off at ground level last fall, and rather than finishing them off, I found out why this process is sometime referred to as “rejuvenation”... Each one of those plants that had refused to send up new canes now has fifteen to twenty healthy new canes. I do need to point out I don’t recommend you try “whacking off” all of your plants. I’d try getting them into balance by other means first, or try this with just a few of the worst plants, and see what happens.

All of the above adjustments will help if a heavy crop load was the primary problem. Another factor such as disease, insufficient watering or nutritional difficulties may negatively influence the amount of foliage produced, so those issues may need to be corrected also. However, even plants that have problems in these areas may also benefit from your “lightening the load” while pruning and correcting the other problems. (*Source: The Vegetable & Small Fruit Gazette, August 2008, Volume 12, No. 8*)

Disease Update

Timothy Miles and Annemiek Schilder, Michigan State University

This week all scouted plots were between the 1st and 2nd harvest. In the previous issue, we discussed fruit rots and the different symptoms associated with them, specifically anthracnose (orange spore masses; caused by *Colletotrichum acutatum*) and *Alternaria* (dark-green spore masses; caused by *Alternaria* spp.). Over the past two weeks we have seen an increase in the number of fruit rot symptoms in the field. Anthracnose and *Alternaria* were seen in all four of the scouted plots (Figure 1 and 2). Also, we have noted that the ‘Jersey’ plot in Covert, MI has tended to be more susceptible to anthracnose than the other sites

which are Bluegray and Rubel. Anthracnose in particular is favored by hot, humid weather.



Figure 1. Anthracnose fruit rot symptoms in the field, notice the orange sporulation (arrow) (Covert, MI).

Fruit rots can cause significant pre- and post-harvest yield losses. Berries with high fruit rot levels also tend to have higher microbial counts. Healthy berries can get infected by *Colletotrichum* spores washing down from infected berries in clusters during rain events or overhead irrigation. Infections can even occur by infected berries or spores touching healthy berries on the harvester or sorting line. At this time, *Alternaria* spores are also ubiquitous in the air of blueberry fields. Pre-harvest *Alternaria* rot typically affects calyx end of the blueberry, but post-harvest *Alternaria* infections occur

mostly at the scar, which provides moisture for infection. Ripe berries are very susceptible to infection by both anthracnose and *Alternaria* fruit rot. Before harvest, fruit rots can be controlled by proper timing and reducing the frequency of overhead irrigation as well as fungicide sprays programs. While fungicides cannot cure already infected berries, spraying Abound, Cabrio, Switch or Pristine at this time (even between harvests) can reduce the number of secondary infections and the incidence of post-harvest rot.

Scouting for fruit rots in the field at this time can give an indication whether fungicide sprays are needed. (*Source: Michigan Blueberry IPM Newsletter, August 5, 2008*)



Figure 2. *Alternaria* fruit rot symptoms seen in the field; notice the dark green

GRAPE

Post Verasion Petiole Sampling

Alice Wise, Cornell University

Cornell recommends sampling at this time as one component of a nutrition management program. Individually sample: varieties, problem areas, young vines vs. older vines, dry sandy area vs. area with heavier soil and so on. We use petiole sampling not as the final word but as a complement to soil sampling and vineyard observations when determining our fertilization program. The petiole (leaf stem) of the youngest mature leaf from a bearing primary shoot (e.g. not sterile shoots, not laterals) is sampled. Sometimes hedging makes it a little more difficult.

Sampling of a petiole from the top 25% of the shoot should suffice. For varieties with large petioles, take 40 or so petioles. For varieties with smaller petioles, take 60 or more. Further information on Cornell's petiole analysis lab and sampling instructions can be obtained from CCE's Hort Diagnostic Lab, phone 727-4126 mornings, or stop by the Griffing Ave. office during business hours. Check with the lab for current pricing. There are several private labs that also do a good job with tissue analysis. (*Source: Long Island Fruit & Vegetable Update, No. 23, Aug. 15, 2008*)

Hail Damage in Grapes

Anne Demarsay and Joe Fiola, Univ. of Maryland

We experience many climatic vagaries in the Mid Atlantic. Hail damage may be the most devastating as it can quickly obliterate a season of meticulous management in the vineyard. Depending on the timing and intensity of the event, as well as canopy density and exposure, damage can range from random tears in leaf blades to defoliation, extensive shoot damage, and crop loss. We have had four hail events at WMREC/Keedysville, one at CMREC/Upper Marlboro, and I have received many reports from across the state.

Hail during early stages of development (pre-verasion).

- Shoots and petioles may be damaged and leaf blades are shredded or torn from the vine.
- Severe defoliation from hail during early to mid-season will typically stimulate a new canopy to develop from lateral shoots, with minimal long-term effect on fruit quality. Fruit maturity, however, will be greatly retarded after severe defoliation.
- Berries damaged by light to moderate hail early in development will be scarred but will typically "heal" or die but WITHOUT onset of fruit rot.

Hail during late stages of development (post-verasion).

- Shoot, petiole, and leaf damage will depend on the direction and intensity of the hail, as well as the density of the canopy.
- Medium to severe defoliation from hail after veraison may stimulate some new canopy development from lateral shoots. Fruit maturity will be greatly retarded, however, and fruit quality is likely to be adversely affected.

- Eliminate or thin crop to a level appropriate for the each vine, considering both proper (potential) ripening of the fruit, as well as proper hardening of the vine for adequate winter survival.
- Hail during or after veraison WILL promote fruit rot. Severely damaged berries may drop immediately but some may hang on.
 - Intensify fruit disease management to combat the increased risk of Botrytis and summer bunch rots such as ripe rot, bitter rot, and Macrophoma rot.
 - Botryticides (Vanguard/Scala, Elevate, Rovral, Pristine/Endura) and captan will help to protect sound berries from rot infections but cannot prevent the development of rots in damaged berries.*
 - The onset of rot will promote the attack of insects that can further damage berries and clusters and encourage sour rot. Stinging insects may create hazards for the vineyard worker, especially during harvest.
 - Scout for insects. Identify those that are actually damaging fruit and treat if appropriate. This will be the same insect complex that we deal with during harvest, especially secondary scavengers. As always do not apply an insecticide unless the insects are causing economic damage.
- For late-season hailstorms, assess the damage and determine whether the sound fruit will be able to ripen to a level of quality that will justify additional pest management applications.

**Maryland growers may refer to Extension Fact Sheet 848, Guidelines for Developing an Effective Fungicide Spray Program for Wine Grapes in Maryland, 2008, for specific management recommendations. <http://extension.umd.edu/publications/PDFs/FS848.pdf>*

**For more detailed information please see info in "Managing Summer Bunch Rots on Wine Grapes" from Dr. Anne DeMarsay at: <http://www.grapesandfruit.umd.edu/Grapes/Pages/ManagingSummerBunchRots.pdf>*

(Source: Maryland Timely Viticulture, Aug. 15, 2008)

GENERAL INFORMATION

AUGUST BERRY BAROMETER - *Helping to Keep you Up to the Mark!*

Cathy Heidenreich, Cornell CALS

ALL BERRY CROPS:

1. **Leaf Analysis** – Still time to get this done if you move on it now!
 2. **Fertilization** – The window for fertilizing new transplants is pretty much closed for the season. Nothing further with the exception of late season N applications for strawberries. More on that in the next issue.
 3. **Weeds** – Hand-weeding or spot applications to control weeds in new plantings through the end of this month; gearing up for fall applications.
 4. **Diseases and Insects** – Stay the course- the end is in sight! Make applications promptly when environmental conditions are conducive to disease development/build-up or economic thresholds are exceeded for insect pests.
 5. **Harvest/Post Harvest** – Hot summer months are no time for harvested berries to be left sitting in the field. Set up a do-it-yourself forced air cooler and keep those berries moving into the cold chain ASAP!
1. Diseases – Recent wet weather may promote development of leaf diseases (leaf spot, leaf scorch, and leaf blight). Protectant fungicide applications made to newly expanding leaves may be of some benefit in plantings with a history of disease.
 2. Insects – Some fields are potato leaf hopper damage. Young plants are most seriously affected by injury resulting in short petioles and small distorted leaves. Look for very active adults and nymphs by brushing foliage. Watch for leaf yellowing starting at the leaf margin and progressing toward the midvein (right). Options for control may be found in the berry pest management guidelines for control strategies (<http://ipmguidelines.org/BerryCrops/>).
 3. Weeds - Spot treatments, cultivation, hand-weeding for now followed by Dacthal, Sinbar, or Devrinol for winter annuals next month. September is also the time for thistle control using Stinger.
 4. Straw Mulch – It's just around the corner! Be sure to secure sufficient straw to cover your planting. A general rule of thumb is 2-3 tons/acre, more if you are in a colder area with little snow cover or have plants on raised beds (4-5 tons/A). Be sure straw is glyphosate residue and weed-seed free!

STRAWBERRIES:

Established plantings:

New plantings:

1. Plant establishment – The end is in sight! Direct runner plants from aisles back into planting row area. Remove blossoms as they open to encourage good plant establishment and growth. Cultivate in mid-August then apply Dacthal (12 lb/A) for weed control.

BLUEBERRIES:

Established plantings:

1. Soil pH – If your pH is still above 5.0 remember to schedule a late fall sulfur application (200 lb/A). The prilled form of sulfur takes a little longer to break down in the soil than the powdered formulation but tends to be more user-friendly to work with.
2. Weeds – Hand –weeding and spot treatments.
3. Diseases – The wet weather continues – if anthracnose is a concern an application during harvest of Cabrio, Pristine, or Switch may be indicated. All three products have a 0 DTH and 12 hour REI. For more information see the berry pest management guidelines (<http://ipmguidelines.org/BerryCrops/>).
4. Insects –Japanese beetle continues to be a concern. Options for control may be found in the berry pest management guidelines (<http://ipmguidelines.org/BerryCrops/>). Note Assail 30SG, a new product recently labeled in NYS, has been shown to have good efficacy against Japanese beetle. Labels for this product may be accessed from the lower left hand side bar of: <http://www.fruit.cornell.edu/berry.html>.

New plantings:

1. Soil pH – If your pH is still above 5.0 remember to schedule a late fall sulfur application (200 lb/A).

The prilled form of sulfur takes a little longer to break down in the soil than the powdered formulation but tends to be more user-friendly to work with.

2. Weeds – Hand –weeding and spot treatments.
3. Wildlife – Watch for deer browse on new plants. Take immediate steps to deter feeding.

RASPBERRIES AND BLACKBERRIES:

Established plantings:

1. Diseases – The weather continues to be wet - keep ripening fruit protected from gray mold.
2. Insects – Insects of concern include Sap beetles, and Japanese beetle. Potato leaf hopper may also be a problem on raspberries, causing leaf yellowing from margin to midvein (right) similar to that in strawberries. See the 2008 Pest Management Guidelines for Berry Crops to review your control options (<http://ipmguidelines.org/BerryCrops/>).

New plantings:

1. Plant establishment – Keep weeds at bay with spot treatments and hand weeding.

CURRENTS AND GOOSEBERRIES:

New and Established plantings

1. Diseases – Continue to watch for leaf diseases such as white pine blister rust (yellow-orange powdery spots), powdery mildew (white powdery spots), or leaf spots (black necrotic spots) on leaves. Be sure to check both upper and lower leaf surfaces. See the 2008 Pest Management Guidelines for Berry Crops to review your control options (<http://ipmguidelines.org/BerryCrops/>).
2. Insects – Postharvest insects of concern include Japanese beetles, and Two-spotted spider mites

(Source: New York Berry News, Vol. 7, No. 5, Aug. 2008)

Upcoming Meetings:

Aug 19, 2008. **Vegetable Twilight Meeting.** Tasey’s Farm, Shelburne, NH. For info, contact Steve Turaj at 603-788-4961 or steven.turaj@unh.edu

Aug 19, 2008. **Growing Blueberries and Blackberries in the Hudson Valley.** Samascott Orchards, 5 Sunset Avenue, Kinderhook, NY. 4:00 pm. Details follow. There is no charge for this meeting, but please call Peggy at 518-828-3346 before August 18th so we can plan appropriately.

Aug. 20-21, 2008 **NASGA Summer Tour** Columbus, Ohio. See <http://www.nasga.org/> for more information

Aug 20, 27-28, 2008. **NNY High Tunnel Meetings..** The free Open Houses will be held:

Wednesday, August 20th from 5:30-7:30 pm at Almedan Produce, 13501 County Route 155, Adams Center

• Wednesday, August 27th from 5:30-6:30 pm at Carriage House Garden Center, 4002 Route 22, Willsboro

• Wednesday, August 27th from 6:30-7:30 pm at Cornell E.V. Baker Agricultural Research Farm, Point Road, Willsboro

• Thursday, August 28th from 5:30-7:30 pm at Rivermede Farm, Beede Road, Keene Valley.

For more information on the open houses, contact Sue Gwise at Cornell Cooperative Extension of Jefferson County, 315- 788-8450, or Amy Ivy at Cornell Cooperative Extension of Clinton County, 518-561-7450.

Aug 21, 2008. **NOFA-NH Farm Tour & Potluck Dinner: Land Use Partnership & New Farmers.** Two Mountain

Farm, Andover, NH. 6pm. For info, contact NOFA-NH at 603-224-5022 or info@nofanh.org or visit: www.nofanh.org

- Aug 27, 2008. **NH Vegetable and Fruit Growers' Twilight Meeting.** Woodman Horticultural Farm, Durham NH. 4:30-7:30pm. See and hear about the latest UNH research on vegetable crops, ornamental horticulture, fruit crops, and more. Contact: Suzanne Hebert at suzanne.hebert@unh.edu or 603-862-3200.
- Sept 17, 2008. **Using Hydrostackers to Grow Alpine and Day Neutral Strawberries.** 4:00pm 3007 Route 20, Hudson NY. *There is no charge for this meeting, but please call Peggy at 518-828-3346 before September 15th so we can plan appropriately.*
- Sept 17, 2008. **Introduction to Growing Aronia.** 2:00pm. Mountain Range Farm, 1288 Route 31, Livingston, NY. *There is no charge for this meeting, but please call Peggy at 518-828-3346 before September 15th so we can plan appropriately.*
- Sept 18, 2008, **On Your Way to Growing Greener: Using Biological Control in Greenhouses 9:15 AM – 3:45 PM Sturbridge Host Hotel and Conference Center, Sturbridge, MA** *Sponsored by: University of Massachusetts, University of Connecticut, University of Rhode Island and Northeast SARE Featuring Stanton Gill, (University of Maryland) and Suzanne Wainwright-Evans, (Buglady Consulting).*
- Topics will include: Why Should Growers and Retailers Consider Biological Control in Their Greenhouses, Practical Steps in Starting a Biological Control Program: Is it for you? What crops should you start with? Sources and Quality Control of Natural Enemies, Which Natural Enemies are Best for Fungus gnats, Spider mites, Thrips and Aphids: How to use them, Compatibility, Where and how to release them, What rates to use, *Examples of Live Specimens!*, Using Banker Plants, "Future" New Products, Case Studies: Real Experiences of Greenhouse Growers, Panel of Wholesale Growers and Grower Retailers Cost: \$35 (includes Handouts, Refreshments, Lunch) Four pesticide recertification credits for attendees from CT, MA, RI, ME, NH and VT
- Sept 19-21, 2008. **Common Ground Country Fair.** MOFGA Common Ground Education Center, Unity, ME. For info, visit www.mofga.org. **AC, O.**
- September 23, 30, October 7, 14, and 21. **Building a Successful Small Farm Operation** in Orleans County, NY. Contact Paul Lehman of Niagara County CCE or Lynn O'Brien of Allegany/Cattaraugus County CCE for more information.
- Nov. 6-8, 2008 **Southeast Strawberry Expo**, at the Hilton Charlotte University Place, Charlotte, NC. Includes Strawberry Plasticulture Workshop for New Growers, farm tour, educational sessions, and trade show. For more information, email info@ncstrawberry.com
- Dec. 8-10, 2008, **North American Raspberry & Blackberry Conference** in Grand Rapids, MI, as part of the Great Lakes Expo. For more information, email info@raspberryblackberry.com.

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