



# Berry Notes

Volume 14, 2002

Prepared by the University of Massachusetts Fruit Team

July 11, 2002, Vol. 14, No. 12

Summer Issue #8

<http://www.umass.edu/fruitadvisor/berrynotes/index.html>

*Berry Notes is edited by Sonia Schloemann with articles reprinted from other sources. Authors and sources are always cited. Publication is funded in part by the UMass Extension Agroecology Program and grower subscriptions. A text version can be e-mailed to you if you contact Sonia Schloemann at 413-545-4347, sgs@umext.umass.edu. Please cite this source if reprinting information.*

## Crop Conditions and Pest Summary

**Strawberry** renovation is underway in most locations. Check fields for evidence of black vine weevil or strawberry root weevil feeding (notching on margins of the leaves), Japanese beetle (skeletonizing of the leaf) or strawberry root worm (small shot holes in leaves) and take steps to control these insects before mowing for renovation. Massachusetts has received approval for the use of Admire 2F for control of white grubs under a Emergency Exemption for 2002. See more about this below. Heavily infested fields should be plowed down as soon as possible after harvest is complete to prevent migration of these pests into neighboring fields. **Highbush Blueberry** harvest is underway in most locations. Yield looks good except where frost/freeze injury this spring was significant. Keep monitoring for blueberry maggot fly keeping pre-harvest intervals in mind. Also, keep monitoring for aphids on new growth since they can vector blueberry scorch virus into a healthy planting. Finally, Admire 2F was also approved for use in blueberries for controlling white grubs. This material must be used no later than 7 days before harvest, so you may only be able to use it on later varieties now. Early varieties can be treated after harvest is complete. See more below. **Summer raspberry** harvest is also underway. Check for sap beetle, two-spotted spider mite, Japanese beetle and potato leaf hopper. Several growers have called with concerns about two-spotted mites in raspberries. Savey® miticide is labeled for use in brambles with a 3-day pre-harvest interval. Releases of predatory mites might also be a good option for these situations. **Grapes** are post-bloom and canopy management activities continue. Continue scouting for grape berry moth, mites, Japanese beetles, and leafhopper. Powdery and Downey mildew have been found. See more below on post bloom disease management.

## ENVIRONMENTAL DATA

This information is intended to be used as a guide for monitoring the developmental stages and planning management strategies of pests in your location. Growing degree day (GDD) and precipitation data was collected for the one-week period, June 20 through June 26, 2002. Soil temperature and phenological indicators were observed on June 26, 2002.

Region/Location	Growing Degree Days		Soil Temp (4" depth)	Accum. Precip
	1 Week Gain	Total		
<b>Cape Cod:</b> Barnstable	120	660	70° F	0.00"
<b>Eastern:</b> Hanson	124	731	79° F	0.30"
Waltham	126	896	64° F	0.10"
<b>Central:</b> Boylston	130	637	60° F	0.04"
<b>Western:</b> Amherst	146	772	66° F	0.37"
Great Barrington	105	720	64° F	0.36"

(Source: UMass Extension Landscape Message #17, June 28, 2002)

## STATE WEATHER SUMMARY For the Week Ending Sunday, July 7, 2002

Prepared by AWIS, Inc. (available at <http://www.nass.usda.gov/weather/cpcurr/new-eng-crop-weather>)

STATE	AIR TEMPERATURES				PRECIPITATION	
	LO	HI	AVG	DFN	LO	HI

<b>ME</b>	49	101	71	+6	0.02	4.96
<b>NH</b>	38	102	72	+7	0.00	1.09
<b>VT</b>	46	103	72	+7	0.00	1.99
<b>MA</b>	52	99	76	+8	0.00	0.35
<b>RI</b>	58	98	77	+8	0.00	0.01
<b>CT</b>	55	99	77	+8	0.00	0.41

(Source: New England Ag. Statistics Service, Weekly Crop Weather Report, Volume 23, No. 11, July 8, 2002)

## Strawberries

### Summer Management of Foliar Diseases of Strawberry

Bill Turechek, Cornell University

Last month's edition of the New York Berry News covered fungicidal tactics for managing the common berry rot diseases in New York. In this issue we will cover foliar disease management. Foliar diseases are often overlooked because most do not become noticeable until after harvest or renovation. However, serious outbreaks of any of the diseases discussed below can seriously impact the vigor, winter hardiness, and even the production of a planting. Even one well-timed application in the summer months may be all that is needed to keep disease from reaching levels that may impact production.

**Leaf spot** is caused by the fungus *Mycosphaerella fragariae*. It is one of the most common and widespread diseases of cultivated strawberry. It is also the cause of black seed; a disease of the fruit that can occur when warm and wet conditions occur during bloom. Prior to the development of resistant cultivars, leaf spot was the most economically important disease of strawberry. However, since many commercially grown cultivars are not completely resistant to leaf spot, this disease is still significant on a number of cultivars including 'Honeoye', 'Raritan', and 'Kent'.

**Leaf scorch** is caused by the fungus *Diplocarpon earlianum*. It is a common disease of strawberry in Ontario, Canada and throughout the northeast. Epidemics occur normally from August to October. Leaf scorch can markedly reduce vegetative growth, weakening plants and resulting in a sharp reduction of growth of shoots and roots, a reduction in the number and vigor of crowns, and quite possibly fruit yield. Severely infected plants may die from environmental stresses, such as heat, cold or drought. Losses range from negligible to severe, depending primarily on cultivar susceptibility and weather conditions.

**Leaf blight** is caused by the fungus *Phomopsis obscurans*. The disease affects primarily older foliage in late summer and, like leaf scorch can result in reduced plant vigor and yield in the following season. (It also can cause severe defoliation in nursery production areas in the southeastern US.) Leaf blight is particularly destructive to slow-growing or weak plants. It seldom damages young, runner plants, and rarely attacks the

fruit in the Northeast. The spread of *P. obscurans* is favored by frequent rains, overhead irrigation, and heavy dews. Little spread occurs during hot, dry weather in the summer, although symptoms may continue to develop during this period.

**Powdery mildew** is caused by the fungus *Spaerotheca macularis*. Disease severity is most pronounced in areas that experience high humidity and moderate temperatures through the growing season, such as the coastal and Great Lakes regions of the US. Like most of the foliar diseases mentioned, severe outbreaks of powdery mildew can weaken plants leading to an increase in winter-injury and a reduction in yield.

**Anthracnose** is caused by the fungus *Colletotrichum acutatum* (see article below). The disease is a notorious fruit rotter. However, the fungus also attacks the leaves and petioles of the plant which allows the disease to survive from season to season within a field. Major losses can occur during the establishment year if developing runners are attacked and girdled, killing the daughter plants and not permitting row spaces to be filled.

**Angular leaf spot** is caused by the bacterium *Xanthomonas campestris pv. fragariae*. In New York, the disease is not as widespread as those diseases addressed so far. The disease severely affects the foliage, but it does not readily attack the fruit or crown of the plant under New York conditions. Because there are no real control options, the disease is often left uncontrolled and, seemingly, has little impact on the planting the following year.

**Management of foliar diseases:** As we are just beginning harvest, it can be difficult to coordinate fungicide applications among picking schedules and weather. Fortunately, fungicides are typically unnecessary during harvest unless anthracnose is a problem. Furthermore, fungicides are only necessary after harvest if foliar diseases have been a problem in previous years and/or conditions favor disease development. We are, however, experiencing a very wet spring so it is likely that we will have to contend with some disease during and/or after harvest.

In fields where anthracnose is a problem, Benlate 50WP (0.5 -1 lb/A) or Topsin-M WSB (0.75-1 lb/A) PLUS Captan 50WP (3-6 lb/A) or 80WP (2.75-3.75 lb/A) should be used

for control of leaf diseases. This tankmix will also have some efficacy against anthracnose fruit rot. Benlate, however, can not be applied once a U-pick operation has opened for business and Topsin-M has a 1 day pre-harvest interval. Moreover, the wettable powder formulations of captan can leave a noticeable residue on plants. To reduce residues, it is best to use the flowable formulation Captac 4L (3qt/A) if treatment is necessary. (Note: captan can be used up to the day of harvest, but has a 24 hr reentry interval.)

When anthracnose is a problem, it will be important to follow-up with fungicide treatment (Captan) after harvest and renovation. The fungus is capable of attacking the petioles of young leaves as they emerge after renovation. Furthermore, the pathogen has been shown to survive on the surface of strawberry leaves without causing disease symptoms. Fungicide applications at this time serve to reduce the pathogen population that may overwinter and cause outbreaks next season.

It is worth mentioning that we were expecting the fungicide Quadris to be registered in New York by now. Quadris has been shown in many university trials to be a superior anthracnose material. Unfortunately, the NY DEC was unable to register this product before we need it, so New York growers will have to make do without this fungicide.

If anthracnose is not a problem, managing foliar diseases becomes much easier. Nova 40W (2.5-5 oz/A) is labeled in New York for control of leaf spot, leaf blight, and

powdery mildew and is the most effective fungicide against these diseases. I have not seen any data to support its efficacy against leaf scorch. Applications should begin when disease appears and continue on a 14 to 21 day schedule or when conditions favor disease development. Often, the first application can wait until after harvest. If disease pressure is serious, applications can begin earlier and continue up to the day of harvest. If repeated applications are necessary, it is recommended that Nova 40W be alternated with a tank mix of Benlate and Captan for resistance management.

Fixed copper products are the only real option for managing angular leaf spot. Copper can be applied on 14-21 day schedule, but growers should be aware that as few as 3 successive applications of copper can result in phytotoxicity on some varieties, quite possibly doing more damage than disease itself. The collective experience of many small fruit pathologists in the Northeast is that treatment is often not necessary, as this disease can appear in epidemic from one year but often not the next.

Lastly, a number of cultural practices can be used to help manage disease. New plantings should be established in sites with light, well-drained soil, with good air circulation and full exposure to the sun. In matted-row systems, runner plants should be carefully spaced when filling rows and the entire planting should be kept free of weeds to improve air circulation and reduce drying time for leaves. Removing and burning all debris at renovation (after harvest) helps to reduce overwintering inoculum of all leaf pathogens. (*Source: New York Berry News, Vol 1., No. 4*)

---

## Brambles

### Control of Botrytis Gray Mold in Brambles

*Annemiek Schilder, Michigan State University*

Botrytis gray mold is the most serious and common fruit rot disease of raspberries and blackberries. It is caused by the fungus *Botrytis cinerea*, which also infects numerous other crops, including strawberries, grapes and ornamentals. It is especially severe during prolonged rainy and cloudy periods just before and during harvest. Typically, fall raspberries are more prone to gray mold because of the cool, wet conditions prevailing during fruit development and ripening. Fruit infections also tend to be more severe in the interior parts of the canopy and on fruit clusters close to the ground, due to the higher humidity and reduced airflow.

The fungus overwinters as minute black bodies (sclerotia) in plant debris, including old canes and leaves. In spring, the sclerotia produce large numbers of microscopic spores, which are spread by wind to susceptible plant parts. The spores infect young blossoms, berries, and even leaves and canes when there

is sufficient moisture. Only a few hours of moisture, provided by rain, dew, or irrigation water, are needed for infection under optimal conditions (70-80°F). The fungus usually enters the fruit through the flower parts where it remains inactive (latent) within the tissues of the infected green fruit. As the fruit matures, the fungus becomes active and rots the fruit. So while infection occurs at bloom, symptoms are not usually observed until harvest. Symptoms are rapidly enlarging, light-brown areas on the fruit. Infected berries become covered with gray, dusty growth of the fungus containing millions of spores, hence the name "gray mold." Healthy berries can also become infected by contact with diseased berries. For instance, one sporulating berry in a cluster can infect the entire cluster. Wounds can also predispose berries to infection. Under favorable conditions for disease development, healthy berries may become a rotted mass in 48 hours.

Cultural methods are very important for control of botrytis gray mold. Choosing a site with good airflow can considerably reduce humidity in the canopy. Low-density plantings and narrow rows and trellising can also reduce a buildup of humidity. Good weed control and moderate fertilizer 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 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 closer to

harvest. Elevate is a relatively new, reduced-risk, protectant fungicide with a zero-day PHI that provides good control of pre- and post-harvest gray mold. Since only four applications may be made per season (and only two consecutively) because of the risk of resistance development, Elevate should be alternated with fungicides with a different mode of action. My recommendation is to save Elevate for critical sprays, for example, during wet periods at bloom and for sprays closer to harvest. Other fungicides that may be used in the spray program are Benlate (if any stocks are left), which has a three-day PHI; Rovral, which has a zero-day PHI; or Nova, which has a zero-day PHI. Some growers have experienced poor control with Rovral, which may indicate that Rovral-resistant Botrytis strains are present in their fields. Nova was found to significantly reduce post-harvest gray mold and Cladosporium rot (green-looking fuzzies) in a small plot raspberry trial in Michigan. (*Source: Michigan Fruit Crop Advisory Team Alert, Vol. 8, No. 13, July 9, 2002*)

---

## Blueberries

### Admire Labeled for Japanese Beetle in Blueberry

*Rufus Isaacs and John Wise, Michigan State University*

[An] Emergency Section 18 label [has] been granted by the Environmental Protection Agency for use of [a] formulation of imidacloprid against Japanese beetle in Michigan blueberries. [*Ed. Note: Massachusetts received the same label which expires August 15, 2002.*] This article provides some recommendations for blueberry growers to achieve maximum effect from applications of these products.

#### Preventative grub control

Admire is the soil-applied formulation of imidacloprid, which targets the young larvae hatching from eggs that will be laid this summer. Application this year is therefore a preventative treatment to reduce beetle infestation in 2003. It will have minimal effect on beetle emergence this year because most grubs are fully grown by late June and are not at a susceptible stage.

Admire should be applied to grassy regions of blueberry fields (row middles, drive lanes, headlands) by the start of Japanese beetle egg-laying (typically by July 4) for it to be present in the soil when larvae hatch. Applications need to be watered in with 0.5 to 1 inch of applied water

or rain for it to move through the thatch layer and be present in the root zone where larvae start feeding; application must be made at least seven days before harvest. Research trials on Japanese beetle grubs in Michigan blueberry soils conducted in 2002 showed similar activity of the 16 oz and the 25 oz rates (over 80 percent reduction in grub density) when applied in early August. Over 90 percent activity is expected with application made before egg-laying starts. Imidacloprid is quite stable in the soil, and so only one application is required per year, providing control of larvae throughout the two to three month egg-hatching period.

The greatest density of Japanese beetle grubs have generally been found in permanent sod around blueberry fields. An economical use of Admire might be to apply it only to headlands and drive lanes where beetle egg-laying and grub densities are highest. Using this approach on a 20-acre field should significantly reduce the amount of beetle immigration in 2003 from an application in 2002, spraying to less than one acre of total land (the headlands and drive lanes). (*Source: Michigan Fruit Crop Advisory Team Alert, Vol. 17, No. 11, June 18, 2002.*)

---

## Grapes

### Late Season Grape Disease Control

*Bruce Bordelon, Purdue University*

Disease pressure is extremely high this year. I've seen cases of severe black rot, Phomopsis, and anthracnose. Downy and powdery mildew have also shown up already. Black rot on grapes has been the subject of numerous phone calls and emails from homeowners as

well. Early July usually signals the shift from early season to late season disease control strategy in grapes. From now until harvest the spray interval can generally be extended to 14 to 21 days (depending on rainfall). While we can normally extend our spray intervals this time of year, growers with

severe black rot leaf spot should be prepared to respond to an infection period with one of the sterol inhibitors such as Nova, Bayleton, Rubigan, etc within 72 hrs of the start of the infection period. The amount of inoculum present in some vineyards is very high and a rainfall event of one inch or more will result in significant spore release.

On most grape cultivars the last application of mancozeb is recommended two weeks post-bloom because it has a 66 day pre harvest interval. One of the other protectant fungicides must be substituted for mancozeb for the remainder of the season. Materials currently available for late season disease control are captan, ferbam, ziram, and copper. Ziram has been granted a 24c label (Special

Local Needs) for Indiana [**but not in Massachusetts**] that allows its use during the late season (21 day PHI). The protectant should be combined with one of the sterol inhibitors (SIs) such as Nova, Bayleton, Rubigan, etc. Another option is one of the strobilurin products such as Abound, Flint, or Sovran.

We are at bunch closing so it is time to make an application for Botrytis bunch rot control on varieties that are susceptible such as tight-clustered hybrids (Vignoles, Seyval) and most vinifera, especially Riesling and Pinot noir. Use either Rovral, Vanguard, or Elevate and follow the guidelines in the 2002 Indiana Commercial Small Fruit and Grape Spray Guide (ID-169). (*Source: Facts for Fancy Fruit, 2002-09 July 10, 2002*)

## New Products for Grape Disease Management

*Alice Wise and Wayne Wilcox, Cornell University*

Here is more from Grape Pathologist Wayne Wilcox's 2002 overview of disease management in grapes. As discussed previously, a number of non-traditional products have been registered recently to control powdery mildew (PM) on grapes. They work to variable extents but it helps to understand why. PM is an unusual disease, since the fungus that causes it lives almost entirely on the surface of infected leaves and berries (the powdery stuff you see when control breaks down). Thus, it is "naked" and subject to (temporary) eradication following topical treatment with a range of products that don't affect other disease-causing fungi, which do their dirty work down inside the plant tissues where they're protected from such treatments. Some such products are listed below.

**Nutrol** (monopotassium phosphate). We've been working with this dual purpose material (foliar nutrient plus PM fungicide) every year since 1996, with moderate results. In greenhouse tests, we've found that Nutrol provides no significant control when applied before plants are inoculated with PM spores. In contrast, it provided significant control when applied within 3-7 days after exposure to the spores i.e. when applied directly to the developing PM colonies. This scenario suggests that Neutral should be more effective when applied relatively frequently (repeated knock-downs) rather than relying on residual protectant activity between

sprays. Indeed, we've gotten significantly better control in 2 seasons of field trials when applying 4 lbs./a every 7 days rather than 8 lbs/a every 14 days. Wilcox strongly suspects that this same general principle (one-shot knock-down against young colonies with little subsequent protective activity) will apply to most of the "alternative" PM control products. Thus, they may need to be applied more frequently than many traditional products.

**Kaligreen, Armicarb 100** (potassium bicarbonate). We've haven't worked with Kaligreen, but Armicarb 100 has performed similarly to Nutrol in field trials. Photos in the tread press showing dead PM fungus on treated plants also is consistent with the activity we've seen from Nutrol (topical, eradication effects with no evidence of residual protectant activity).

**Oxidate** (hydrogen peroxide). Registered for control of powdery mildew and Botrytis. We haven't worked with it. Wilcox believes the claims for PM control but doubts those for Botrytis. Will probably require frequent applications.

Final note: remember that the activity of these topical materials is entirely dependent upon their contact with the PM fungus. Don't waste your time and money if you can't provide thorough coverage. (*Source: Long Island Fruit & Vegetable Update, No. 14, June 14, 2002*)

## Grape Insect Update

*Alice Wise, Cornell University*

**Potato Leafhopper:** Potato leafhopper (PLH) finally arrived and is at treatable levels in some vineyards. PLH is pale yellow and walks sideways like a crab. This insect does not overwinter on Long Island, rather it rides thermals (warm air masses) from the south. The constant migration means there are no distinct generations, thus it

may be present continuously in the vineyard for a month or more. In some seasons, PL has unfortunately persisted well into August.

When PLH feeds on leaves, a toxin is injected causing chlorosis (yellowing) of the leaf edge and cupping of the leaves. This is especially noticeable on shoot terminals.

Deciding on treatment is a judgement call as there are no hard and fast thresholds. Vines can tolerate some injury. The decision to treat often depends on degree of injury plus general health of vines and the presence of other insect pests that may require treatment (namely grape berry moth and Japanese beetles). Note that young vines are potentially more affected by PLH so that intervention might be sooner vs. mature vines.

Options for treatment are Sevin, Imidan, Provado and Lannate. Danitol is labeled only for eastern grape leafhopper though the company may be pursuing PL for the label in the future. There is no clear choice here. Sevin works but has a history of flaring European red mite (ERM). Imidan gives variable results and has a short residual (period of efficacy) but is supposedly softer on ERM beneficials. Provado is soft on beneficials but expensive. Note that in apple trials, a half rate of Provado worked on leafhopper (no info on grapes). Lannate works

well but is restricted use, toxic to ERM predators and has a 7-day restricted entry interval.

Though labels are not at hand as of this writing, insecticidal soaps may offer some control of leafhoppers. Quite likely they will not control a moderate to severe infestation. There is little collective experience with these materials so make sure the material of interest is registered in NY, and that grapes are on the label. Read and follow label directions carefully. Experience with oils dictates that one might want to avoid tank mixes as well as applications in hot weather.

The bottom line – we need more insecticide choices, softer materials that help us conserve beneficial insects. This is a big gap in our ability to effectively and environmentally manage our vineyards. References: *Scaffolds* newsletter, No. 15, June, 1998 and 23 June 1999 memo from CCE entomologist Dan Gilrein. (*Source: Long Island Fruit & Vegetable Update, No. 14, June 14, 2002*)

---

## Ribes

### Diseases Management of Currant and Gooseberry

*Bill Turechek, Cornell University*

The production of Ribes (gooseberry and currants) is expanding rapidly in the Northeast, especially for fresh consumption, and efforts are underway to develop an extensive processing industry. A few diseases have begun to appear in established plantings as well as in newer plantings. Leaf spot, also known as anthracnose (*Drepanopeziza ribis*), has been devastating on gooseberry, red currant, and to a lesser extent, black currant. White pine blister rust (*Cronartium ribicola*) is a major disease problem on susceptible black currant varieties such as 'Ben Alder' and 'Ben Nevis'. In severe cases, 'Ben Alder' has been completely defoliated by August leading to winter-killed bushes due to lack of hardening. Powdery or American mildew (*Spherotheca mors-uae*) is a disease that must be controlled every year if resistant varieties are not used.

In New York, the only fungicides labeled for use on currant and gooseberry are myclobutanil (Nova), benomyl (Benlate), iprodione (Rovral), copper hydroxide (e.g., Kocide), mineral oil (e.g., Stylet Oil), and sulfur. Currently, we have little experience with how well some of these products will work against these diseases under New York conditions. Therefore, I will draw upon experience of how well these fungicides work on other crops with similar diseases to derive a best guess on how well these may work on currant and gooseberry.

To manage these diseases, copper hydroxide must be applied regularly using short spray intervals to maintain (albeit marginal) efficacy. However, this use pattern often results in phytotoxicity. Mineral oil and sulfur are relatively good products for control of powdery mildew, but they can not be mixed in the same spray tank or be

applied close to each other in a spray schedule due to phytotoxic effects. Furthermore, some gooseberry varieties are "sulfur shy" and cannot tolerate the use of sulfur and excessive applications of oil may delay ripening. Like copper fungicides, both have short residual activity and must be applied regularly to maintain efficacy. Nova is an excellent fungicide for managing powdery mildew. Nova is also very effective at controlling rust on apples and is labeled for the control of rust on blackberry and raspberry. Rovral is used primarily for managing gray mold (*Botrytis cinerea*). Although, Rovral is labeled for control of anthracnose on strawberry, it is not very effective.

Typical spray programs for disease management include a dormant application of copper hydroxide or lime sulfur targeted at reducing the overwintering population of anthracnose and powdery mildew. Prebloom applications of copper or wettable sulfur beginning just before bloom and continuing on 7-10 interval or on an "as needed" basis are typical for managing anthracnose. Season-long schedules are often necessary in New York because the labeled fungicides are only moderately effective at controlling anthracnose, especially on the most susceptible varieties. For powdery mildew, Nova can be applied at the sign of the first symptoms or, in problematic areas, at prebloom, bloom, and 2 weeks after. Nova is also registered for control of anthracnose but it is only moderately effective. Oils and sulfur may also be used but their use can be problematic as discussed above. Only oils are labeled for control of rusts. However, if Nova is used to target powdery mildew, reasonable control of rust can be attained. (*Source: New York Berry News, Vol. 1, No. 4, June 15, 2002*)

---

## General

### **Massachusetts Turnpike Seeks Growers for Farmers' Markets**

The Massachusetts Turnpike Authority invites farmers to participate in this year's Farmers' Market Program. Free selling space will be made available at all of the turnpike's new and improved service centers, on a first come, first served basis. The newly constructed and enlarged service centers feature Exxon Gas and Circle K Convenience stores, along with many new food concepts including: McDonald's, Papa Gino's, D'Angelo's, Boston Market, Dunkin Donuts, Honey Dew Donuts and Ben and Jerry's Ice Cream. The markets will continue through the Fall. For more information contact David Fenton at 781-431-5192 or email: [dave.fenton@ma.state.ma.us](mailto:dave.fenton@ma.state.ma.us). (*Source: Mass. DFA Farm & Market Report News Extra Vol. 79, No. 3.5, July 2002*)

### **First Annual Southeastern Massachusetts Agricultural Partnership "Tour des Farms" Cycling and Farm Harvest Tasting Tour**

The First Annual SEMAP "Tour des Farms," cycling and farm harvest tasting tour will be held Sunday September 22, 2002. This unique cycling and tasting tour, which will start and end at Westport Rivers Vineyard and Winery in Westport, Massachusetts, will take riders through scenic Dartmouth, Westport and Eastern Rhode Island. Along the route, riders will be able to stop in at participating farms and taste the locally grown bounty of the Southcoast, including fresh produce, herbs, cheeses, beefalo and homemade ice cream, as well as purchase additional products at a farmers' market at Westport Rivers Vineyard.

Varying ride lengths and tour routes are offered so there will be enjoyable opportunities for families as well as more experienced cyclists. Three routes/loops of 12, 18 and 21 miles, will take riders through historic New England villages, and past farms and vineyards with breath-taking coastal vistas.

Registration fees and sponsorship minimums for the Tour de Farms are as follows: · Individual : \$10 registration/\$100 sponsorship minimum per cyclist · Families: \$10 registration/\$200 sponsorship minimum per family · Adult Teams: \$10 per cyclist registration/\$100 sponsorship minimum per cyclist · Youth Teams: \$10 per cyclist registration/\$400 minimum sponsorship per team · Walkers: \$10 registration/\$100 sponsorship per walker

The "Tour des Farms" is sponsored by, and is a fundraising event for the Southeastern Massachusetts Agricultural Partnership (SEMAP). SEMAP is a coalition of farmers, consumers, and industry representatives who are working together to raise consumer awareness of the value of farming and farmland throughout Southeastern Massachusetts in an effort to keep area farms economically viable and protect valuable working farmland and open space.

For more information on the "Tour des Farms" or for registration information, contact John Bullard at UMass Dartmouth, 508-999-8895 or on-line at <http://www.umassd.edu/SEMAP>. The registration deadline is September 12. (*Source: Mass. DFA Farm & Market Report News Extra Vol. 79, No. 3.5, July 2002*)

---

*Massachusetts Berry Notes is a publication of the University of Massachusetts Extension Fruit Program which provides research based information on integrated management of soils, crops, pests and marketing on Massachusetts Farms. No product endorsements over like products are intended or implied.*