



Berry Notes

Prepared by the University of Massachusetts Fruit Team

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Massachusetts Berry Notes Underwriters:



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UPCOMING MEETINGS

Message from the Editor

2006 New England Small Fruit Pest Management Guides are still available for purchase. Guides may be purchased by check (made out to the New England Vegetable & Berry Growers Association or NEV&BGA) by contacting me, Sonia Schloemann, at 22 West Experiment Station/UMass, Amherst, MA 01003. The cost is \$10 plus \$4 for S&H for a total of \$14.

AGR-LITE Insurance Sign-up Deadline is March 15 - AGR-Lite is a whole-farm revenue protection package that covers most crops, animals, and animal products. The program is based on a 5-year average of revenue from Schedule F,1040, or equivalent tax forms. Coverage is purchased from participating insurance companies, but the cost is subsidized by USDA Risk Management Agency. For more information, contact Rich Chandler, rhandler@umext.umass.edu or 413-577-0459.

Consider Farmers' Markets - A workshop for farmers considering selling at farmers' markets on Tuesday, April 4th 2006 at Brigham Hill Community Farm, 37 Wheeler Rd, North Grafton, MA from 9:00 A.M - 3:30 P.M. No cost to attend, however limited space is available. Attendees must register by contacting David Webber, 617-626-1754 or david.webber@state.ma.us by Tuesday, March 28.

Agricultural Risk Management Seminar for Massachusetts Producers - Risk assessment and management play important roles in a successful farm operation, from employee injuries to health care to natural disasters. On March 30th, a risk management seminar will help Massachusetts producers deal with risk. This will be a forum to discuss the strategies, tools and systems producers can use to manage risk exposure on their farms. For more information contact Kathy at 413-323-9878 or kzruhf@verizon.net. To register, call NESFI at 413-323-4531.

STRAWBERRY

Timing Winter Straw Removal in Strawberries

Jeff Kindhart and Tony Bratsch University of Illinois

A common sign that mulch should be removed is the presence of new growth. Many growers delay mulch removal in an attempt to delay flowering time and avoid frost damage. Unfortunately, this delay has little effect on flowering time and may result in reduced yields.

Let's look at the whole story ...

To be successful with strawberries in the Midwest it is critical to apply straw over strawberry plantings in the late fall. Straw protects plants from winter cold and dessication and guards against excessive frost heaving which can damage the shallow, brittle roots of strawberries. Its other advantages are spring frost protection, weed suppression and soil moisture conservation. Straw also acts as a barrier between ripening berries and the soil, keeping fruit clean and dry during harvest. It has often been a question from growers as to ideal timing to apply and remove mulch. Recent research by Dr. Bob Skirvin and Research Specialist Alan Otterbacher at the University of Illinois has given growers solid guidelines for removal of winter straw.

The best way to gauge the timing of straw removal is by soil temperature monitoring. Because most strawberry roots are found in about an 8 inch zone, taking soil temperature to a depth of about one half of the root zone (about 4 inches) is recommended. In a University of Illinois study, mulch removal timing was

evaluated at 38, 43, 48 and 54 ° F, to determine when soils held steady at these temperatures for at least 3 days. In Champaign, these temperatures were correlated with roughly mid March, late March, mid April and late April removal timings, a range of about five weeks.

Results from this study indicated that the greatest yields were obtained where mulch was removed when the 4- to 5-inch soil temperature was 40 to 43 ° F. They also found that even between the earliest and latest dates of removal, early bloom was separated by only 11 days; and first harvest by only 3 days. Thus advantages of early mulch removal to promote early maturity were minimal. However, production was shown to increase by early removal. Late removal (a delay to 54 °F) actually decreased yields, mainly due to leaf etiolation (elongation under shade conditions) and reduction of leaf area due to sunburning. Crowns were also killed by a delay in straw removal.

Again, the ideal 4- to 5-inch soil temperature for straw removal is 40-43 ° F; in central Illinois, these temperatures were reached by the end of March. This allowed time for leaves to begin growth with little danger of sunburning, and produced the greatest yields.

For more information on this study, see pages 72-74 of the Proceedings of the 1998 Small fruit and Strawberry Schools. (*Source: Illinois Fruit & Vegetable News, Volume 5, Number 4, March 25, 1999*)

RASPBERRY

Weather and Winter Hardiness: Raspberries

Richard C. Funt, Ohio State University

Weather is one factor in plant hardiness and cold injury. Cold injury is generally referred to when plants have not entered a stage known as rest (true dormancy). Once brambles receive a specific number of hours of chilling (32 to 45 ° F) and overcome dormancy, they begin to grow again. Bramble cold injury can occur after warm, wet conditions in November before dormancy. Spring thaws (even a January thaw - January, 2002 had 10 days of thaw) and cold March weather can cause serious damage after dormancy. Ohio growers have reported early and mid-March 2002 low temperatures of +3 °F and +18 °F. At these temperatures some cold injury is expected, especially on black raspberries and blackberries. During

December, January, and/or February brambles are in dormancy near the 40 degrees latitude (Columbus, Ohio = 40 degrees or the same as Peoria, Illinois). Depending on type and cultivar, raspberries require 800 to 1700 hours of chilling and blackberries require 350 to 600 hours. While in dormancy, raspberries can survive temperatures of -10 °F to -20 °F. After chilling hours have been met and plants have had warm days and nights of 42 °F or higher, damage may occur below +20 °F.

Over a 45-year period (1951 to 1995) Illinois researchers found that in Peoria, 500 chilling hours never occurred before November 28 nor later than December 6. Based on this research it can be concluded that plants in Ohio were

susceptible to cold temperatures and injury in March. Furthermore, 1,500 hours of chilling would not have been met until April 16th (Peoria data). By January 29, 2002, Wooster, Ohio had 1450 hours of chilling. Therefore, those plants in central Ohio requiring 1,500 chilling hours were probably still dormant on or about February 1, 2002. However, they could have been susceptible to cold injury as temperatures dropped below 10 °F in March, because the 1,500 chilling hours had been met and warm temperatures may have caused plants to grow resulting in injured plants.

For some blackberries that require 500 hours of chilling, cold injury could occur as early as December. For raspberries that require 1500 hours of chilling, cold

injury could occur as early as mid-February. The outside of the plant may show discolored laterals and stems when cold injury occurs. The inside of the stem (cut across) will be brown or black on one side or completely across. Healthy plants will be a normal red to reddish brown and green just inside the outer edge. As shoots emerge, some vegetative buds never grow, some grow to several inches and collapse, and some produce flowers but fruits never mature. Some shoots or new canes may grow normally. A complete assessment of cold injury is not generally made until late May or June. (*Source: Ohio Fruit ICM News, Vol. 6, Issue 9, April 11, 2002*)

Bramble Variety Notes

David Handley, Univ. of Maine

Red Raspberries, Summer-bearing

Boyne: From Manitoba. Ripens early, excellent winter hardiness, high yielding. Plants are spiny and produce many suckers. Fruit is small to medium in size, dark and soft, with fair flavor and good freezing quality. Susceptible to anthracnose. Highly recommended for colder sites.

Canby: From Oregon. Ripens midseason, only moderate hardiness. Plants are tall, nearly thornless, and moderately productive. Fruit is medium to large, firm, bright red with excellent flavor. Limited success in cold climates

Encore: Recent release from New York. Ripens late season, with long harvest season. Hardy and free suckering with vigorous, erect, nearly spineless canes. Fruit are medium-large and firm with good flavor. Encore shows a moderate tolerance to Phytophthora root rot.

Haida: From British Columbia. Ripens mid to late season. Hardest of the Pacific Northwest types. Vigorous plants with moderate spines. High yielding. Fruit are medium-sized, with good flavor; berries are firm, sweet, and freeze well.

Hilton: A New York release. Ripens midseason, moderate hardiness. Plants are tall and vigorous, and moderately productive. Fruits are quite large, attractive, dark red, firm, with fair to good flavor. May be difficult to pick unless fully ripe.

K-81-6: From Nova Scotia. Ripens mid-late season, very hardy. Vigorous, tall canes. Medium large, bright red fruit are firm with good flavor.

Killarney: From Manitoba, sibling of Boyne. Early ripening, slightly behind Boyne. Plants are very hardy, spiny, produce many suckers, and are susceptible to mildew. Plant is short to medium. Fruit is medium-

sized, and bright red. Flavor and freezing quality are good, but berries may soften in warm weather. Susceptible to anthracnose. Highly recommended for colder sites.

Latham: A Minnesota release. Midseason ripening, very hardy. Plants are vigorous with few spines. Small fruit with good color, but crumbly with only fair flavor. Ripens over a long period of time. Less susceptible to viruses than some varieties. Recommended for colder sites.

Lauren: A recent release from Maryland. Mid-late season ripening, only moderate hardiness. Tall, vigorous canes. Fruit are very large and fairly firm with fair flavor.

Newburgh: From New York. Midseason ripening, hardy. Plants tall but not highly vigorous. Some spines. Partially resistant to common cane diseases. Fruits are medium in size, light red with good flavor. May be crumbly, and tends to ripen unevenly.

Nova: From Nova Scotia. Very hardy plants with good vigor and few thorns. Appears to be resistant to most common cane diseases. Fruit ripens midseason, is medium sized, firm, bright red, and somewhat acidic.

Reveille: From Maryland. Early ripening. Hardy. Plants are vigorous, producing many suckers. High yielding. Fruits are medium to large with good flavor, but very soft. Poor shipping and freezing quality.

Taylor: From New York. Late ripening. Moderately hardy. Plants are vigorous with some spines. Very susceptible to mosaic virus, leaf spot and fungal diseases. Fruit is medium to large with excellent flavor, good color and firmness.

Titan: From New York. Mid to late season ripening, only moderate hardiness. Large canes, suckers emerge mostly from the crown, i.e. slow spreading. Extremely productive. Plants have very few spines, but are susceptible to crown gall and Phytophthora root rot. Fruits are extremely large and dull red, with mild flavor. Difficult to pick unless fully ripe.

Red Raspberries, Everbearing (primocane-fruiting)

August Red: From New Hampshire. Earliest ripening of the primocane-fruiting types. Canes are short and spiny, with moderate vigor. Fruit size is medium-sized, somewhat rough, and mildly flavored.

Autumn Bliss: From East Malling, Scotland. Early ripening primocane crop. Moderately vigorous canes with few spines, suckers develop near the crown. Productive. Fruit is large and highly flavorful.

Autumn Britten: East Malling, Scotland, similar to Autumn Bliss. Early ripening primocane crop. Limited cane production, close planting recommended. Medium to large fruit with very good quality.

Caroline: A recent release from Maryland. Mid-early ripening primocane crop. Vigorous with tall canes. Large, firm fruit. Ripens over a long harvest season. Moderately hardy for floriculture crop.

Dinkum: From Australia. Similar to Autumn Bliss, early ripening primocane crop on moderately vigorous canes. Large, firm, flavorful fruit.

Fall Red: From New Hampshire. Early ripening primocane crop. The medium to short canes are very vigorous, and produce many suckers. Moderately spiny. Fruit size is medium. Good flavor, but soft. Recommended for most sites in northern New England.

Heritage: A New York release. Primocane crop ripens relatively late. Tall, rugged canes with prominent thorns. Very high yielding. Fruit size is medium. A good color and flavor, firm, good freezing quality. Due to the late ripening of the primocane crop, this variety is not recommended for regions with a short growing season, i.e. frost before September 30 or cool summer temperatures.

Jaelyn: A new, early maturing, primocane fruiting variety, slightly later than Polana. Fairly vigorous canes, with large, dark fruit and good flavor.

Polana: Significantly earlier than Heritage (14-20 days), short, vigorous canes with good yield and attractive fruit. Fruit are medium size with fair flavor. Recommended for more northern sites.

Prelude: From New York. Although everbearing, primarily grown for its very early ripening floriculture (second year) crop. Plants are vigorous and sucker freely. Medium-sized fruit, dark red, good quality. Primocane crop ripens late.

Ruby (Heritage x Titan): New York. Primocane crop ripens slightly ahead of Heritage. Plants moderately vigorous, good productivity. Fruit is large, but flavor is mild. Susceptible to root rot. Suggested for fresh market or shipping in areas with longer, warmer growing seasons.

Yellow Raspberries, Everbearing (primocane fruiting)

Anne: A recent release from Maryland. Mid to late season ripening primocane crop. Vigorous, tall canes. Medium to large light yellow fruit, variable quality.

Fall Gold: From New Hampshire. Primocane crop ripens relatively early. Canes very vigorous, produce many suckers. Fruit is medium-sized, yellow with a pink blush, soft, but with excellent flavor. Poor for freezing or processing.

Kiwi Gold: New Zealand. Another yellow sport of Heritage and similar in ripening season, productivity and growth habit. Good fruit quality, develops pink blush when over-ripe.

Black Raspberries

Black raspberries may winter kill to the snowline if temperatures drop to -10°F in combination with desiccating winds. They are also quite susceptible to virus infections, Verticillium and rust. They are not considered commercially viable for northern New England.

Allen: Early-midseason. Relatively hardy. Plants are vigorous and high-yielding. Fruit ripens uniformly, short harvest period. Fruits are the largest and most attractive of the black types, but flavor is mild.

Blackhawk: From Iowa. Vigorous plants, relatively hardy and productive. Fruit is medium-large, glossy, with good flavor.

Early Sweet: From USDA (Maryland). Vigorous, productive plants. Firm fruit is medium- to large-sized and sweet. Early season. For trial.

Jewel : A New York release. Midseason. Possibly the hardiest black raspberry variety. Plants are vigorous, erect, and productive. Appears to have somewhat more disease resistance than other varieties. Fruit is firm, and glossy with good quality.

Blackberries, Thornless (trailing)

Thornless blackberries have vigorous canes which must be trellised. They are not hardy below - 10°F and are not commercially viable for northern New England. They ripen later than most red raspberries.

Chester: From USDA (Maryland). Late season ripening, possibly hardier than other varieties. Resistant to cane blight. Large, high quality fruit with good shelf life.

Triple Crown: From USDA (Maryland). Vigorous, semi erect type plant, somewhat sturdier than other varieties. Productive, midseason ripening. Large fruit with excellent flavor.

Blackberries, Thorny (erect)

Erect blackberries have tall, rugged canes with prominent thorns. The canes have very limited hardiness. They are not

recommended for commercial production in northern New England.

Darrow: From New York. Hardest blackberry variety. Canes are vigorous with large thorns. Good yields with long harvest season. Fruit are large and glossy, excellent quality.

Illini: From Illinois. A hardy, thorny blackberry with good quality fruit. Suggested for trial where Darrow can be grown successfully.

Fort Kent King: From Maine. Newly released selection found growing at a farm in northern Maine that appears to be very hardy. Thorny, medium-size fruit with good quality. Recommended for trial in colder sites.

(*Source: Proceedings 2005 New England Vegetable & Fruit Conference <http://www.newenglandvfc.org/>*)

BLUEBERRY

Winter Acclimation and Cold Hardiness of Blueberry

Bernadine Strik et al, Oregon State University

Blueberry cold hardiness varies tremendously among types and cultivars. Highbush, half-high, and lowbush blueberries are generally hardy to at least -20 F, although some cultivars are more tender. During recent years, blueberry breeding efforts in the northern United States have produced commercial cultivars which are hardy to between -30 and -40 F if snowfall is sufficient.

Winter injury is not usually a problem in western Oregon and Washington. However, if a severe cold spell occurs early, before plants are fully dormant, winter injury may occur. In Idaho, growers should also be concerned with winter minimum temperatures when selecting sites. Cultivars differ in susceptibility to cold injury. Spring frost injury may also be a problem in blueberry production.

Cold injury

Not all of the tissues of a blueberry plant attain the same degree of cold hardiness. In fully dormant plants, the wood is normally somewhat hardier than the buds, and the roots do not develop any great degree of cold hardiness. Mulching with bark or sawdust can help moderate root zone temperatures and minimize root-freezing injuries.

The basal tissue that connects the flower bud to the shoot is the part of the bud that is most easily injured during the dormant period. Following a freeze, florets in a bud may show no injury even though the basal tissue is injured. The amount of growth of a new shoot or flower cluster depends on the extent of injury at the base of the bud. If injury restricts the flow of nutrients and water, growth of the shoot or flower cluster is slow or stunted, or completely inhibited.

Injury to the basal tissue can be determined by slicing longitudinally through a bud from the tip through the bud base with a sharp razor blade. Freeze-injured tissues will have a brown, water-soaked appearance, while healthy tissues will be green or white. For best

results, wrap tissues to be tested in a plastic bag and hold at room temperature for several days before slicing and examining for browning.

Winter injury to the vascular cambium (thin layer of tissue beneath the bark) of the cane or roots interferes with the movement of water and nutrients to the buds and, later, shoots. Depending on which tissues have been injured and the degree of injury, symptoms of "delayed winter injury" may not appear until late spring or early summer. Shoots may bloom, leaf out, and even begin setting fruit before suddenly collapsing and dying over a 1- or 2-day period.

Sudden collapse is usually related to the onset of hot weather, which increases the demand for water by the developing shoots and fruit. Injured vascular tissues are unable to supply the needed water and nutrients and the shoot collapses. Often, injury to vascular tissue can be determined by scraping away the bark a healthy vascular cambium is bright green, whereas one injured by cold is brown.

Site selection in cold regions

Selecting cultivars that are adapted to a growing site is the most important step in preventing freezing injury. One method of cultivar selection involves using the USDA Plant Hardiness Zone Map, which separates growing regions into hardiness zones, based upon average minimum temperatures.

Because blueberries are long-lived plants, average minimum temperatures are less of a concern than the probability of a killing freeze. For example, although a particular region may be classified as USDA zone 5a (average minimum temperature -15 to -20 F), occasionally it may experience temperatures of -30 F or less. In such a region, blueberries hardy only to zone 5 would be susceptible to freezing injuries during those occasional severely cold winters.

The best method of selecting blueberry cultivars is to determine how often severely cold temperatures are likely to occur in your area and base your selection upon the life

expectancy of the blueberry planting and the probability of a killing freeze. If you do use the hardiness zone concept, select cultivars that are classified at least one zone hardier than the planting site.

Acclimation

The degree to which a blueberry bush hardens off in the fall depends upon many factors, including length of the growing season, alternating day/night temperatures, nutrition, pruning, and fluctuating temperatures during the dormant season.

Actively growing tissues are not cold hardy and are injured by temperatures around 28 F. As the daylength shortens and temperatures decrease in fall, blueberry canes cease active growth and begin a very complex process known as acclimation. Optimum cold hardiness develops when day/night temperatures decrease steadily from mid-summer to late fall, followed by several mild frosts. The degree of cold hardiness varies, according to temperatures, throughout the dormant season. A minimum of 850 to 1,000 chilling hours is needed for shoot growth and flowering to occur the following spring.

Maximum cold hardiness occurs after fully acclimated plants have been exposed continuously to several days of non-lethal, sub-freezing temperatures. Hardiness is lost during periods when temperatures rise above freezing. Most freezing injury occurs when temperatures fluctuate above and below freezing, and is typically associated with sub-freezing temperatures which follow mid-winter thaws. Blueberries in many areas of Oregon and Washington seldom attain maximum cold hardiness due to mild and fluctuating fall and winter temperatures in the coastal areas.

Cultural practices that promote late fall growth can interfere with acclimation and inhibit cold hardiness development. For example, excessive or late fertilization with nitrogen forces late season growth that is susceptible to early fall frosts.

Pruning too early in the fall, before plant dormancy, interferes with cold acclimation by stimulating late,

tender growth. Even if no visible growth develops, early pruning can cause cane tissues to de-acclimate. Delay pruning until canes are fully dormant. Pruning during late winter and early spring also allows for identification and removal of injured wood and buds.

Although research indicates that maximum cold hardiness is associated with drought stress in some woody species, blueberry plants should not be allowed to become drought stressed, either during the growing season or after the plants are dormant. In regions with low annual rainfall, irrigate deeply before the ground freezes to provide enough moisture to supply the blueberries during the winter.

Insect damage, disease, other stresses which damage foliage, and overcropping limit the production of food reserves and interfere with acclimation.

Frost injury

When the flower buds begin swelling in early spring, the florets are the most easily injured part of the bud. Once a flower bud opens, it has lost all of its cold hardiness and will be injured at about 28 F. The tip buds on canes and the tip florets within buds are the first to develop and are the most susceptible to early frost.

To reduce spring frost injury, avoid planting in frost pockets and ensure good drainage of cold air by removing cold air dams formed by trees and brush around blueberry fields. In regions where spring frosts are common, select planting sites on gently sloping hillsides.

Overhead sprinkler systems are effective in reducing spring frost injury if enough water is available. Applying about 0.10 to 0.15 inch of water per hour can protect open blossoms down to a temperature of 25 F. Water must be applied continuously until the air temperature warms above 32 F (wait for ice to melt), or frost injury may occur.

(Source: Excerpted from Northwest Berry and Grape Information Network factsheet, <http://berrygrape.oregonstate.edu/fruitgrowing/berrycrops/blueberry/winter.htm>)

GRAPE

Grape Update from Long Island

Alice Wise, Cornell Cooperative Extension

Winter Low Temps: We've had a mild winter so far with the following temps <20oF: Jan. 16 - 12 oF; Feb. 13 - 14 oF; Feb. 19 - 15 oF, and Feb. 20 - 19 oF. These were in Riverhead so subtract a few degrees for other areas and for low spots. At the research vineyard, we've been busy training up new trunks on older Cab vines. We're not replacing everything but we see the wisdom in maintaining a portion with younger trunks.

Big, old fat Cab trunks incurred the biggest winter injury hit a couple of winters ago so we've been losing productivity in our older Cab vines. Plus, many of the older cordons have been losing spur positions. When this happens, it seems that the remaining shoots are very prone to bullwood. Consequently, we have to try and get some new, more productive wood on these vines. Where we have vines with

no replacement trunk in sight, we've actually whacked off a few trunks to induce some new shoot growth.

Research Vineyard – The Beginning Of A New Era: We have removed more than 300 vines from the research vineyard in the last few years. We've taken out a few Chardonnay, a few Cabernet and a few Pinot Noir clones. We've removed varieties that don't seem suited to Long Island such as Grenache and Muscat Blanc. We've taken out varieties that do well but appeared to be of no commercial interest such as Pinotage. What's new on the horizon? We're working with a CA nursery right now but it looks like a few clones of Sauvignon Blanc, maybe Malbec and perhaps a few new varieties will be planted in 06. In 07, we'll be planting Cab 08 and Merlot 3 as part of a multi-state clonal evaluation effort. We will also hopefully be able to get some of the more obscure varieties that we've been pursuing such as Carmenere. LI industry members please note - suggestions on plant material are welcome – feel free to call or e-mail.

Lessons Learned In 2005: The 05 season was one of extremes, sunny and dry for the entire summer then drenching rains in October. Here are some observations both from the research vineyard and the industry at large.

- Black rot still lurks as a threat to our vineyards. This disease is easily controlled yet sometimes taken for granted. If you don't believe this, try cutting out black rot sprays, even in a dry year but particularly in a wet year.

- It really is possible to cut down on insecticides. We applied one insecticide in 2005. A few growers avoided them altogether. With potato leafhopper infestations low to moderate, we used hedging as our PL control. Seriously, after we hedged off the PL-affected shoot tips, PL damage did not escalate (we kept a close eye on it) and thus we will be able to skip a treatment. It helped that Japanese beetles were a no show as well.

- Check for mites in July to avoid explosions in August. Scout vineyards and look for pockets of bronzing. Confounding this is the fact that mite researchers have been unable to prove that bronzing has a major effect on vines. Thus, this is only anecdotal but many of us have felt that significant bronzing in addition to drought, pest or nutrient stress can have profound effects on the vine's ability to ripen fruit. We can't let these issues chip away at the ability of our vineyards to fully ripen fruit.

- Early PM on clusters can be avoided. There really is only one solution to this – early leaf pulling particularly on Chardonnay. Chardonnay's clamshell leaves tend to obscure the cluster zone. Yet it is difficult to send a machine through as it can slice off tender young clusters. Sending a crew through and leafing the cluster zone, even if it is just one side, may be money well spent. Big wads of clusters are a complicating factor. PM can often be found lurking in these corners as they (*Source: Long Island Fruit & Vegetable Update, No. 2, FEBRUARY 2006*)

Assessing Bud Injury

Tim Weigle, Cornell University

With temperatures hitting below zero numerous times this season there has been some concern expressed as to how badly the buds have been injured. One comment I have heard is that the best defense is a good offense and more buds will be left up to combat winter injury and to guard against another spring frost. I will leave the discussion of how you need to look at the whole picture and be prepared to thin during the growing season and the effects of over cropping on the vines carbohydrate storage to Terry Bates and Hans Walter-Peterson. I would like to direct your attention to some of the pest management problems that can be caused by leaving up more buds than you need.

Number 1 - While not specifically a pest management issue, it is an issue of common sense. Most everyone has complained about the job an unsupervised migrant crew does, leaving up too many buds, not leaving up the best buds, etc., leaving you with a mess that requires additional input of man hours in future years to get back to a training system you recognize. Why

would you do on purpose what you have tried to avoid over the years?

Number 2 - Along the same lines as minimal pruning, or hedging (but hopefully not as drastic) will be the number of smaller shoots that come out in the spring quickly filling in the canopy. Take the problem with getting coverage in the interior of the canopy (the fruiting zone) during late season sprays for grape berry moth and move it up earlier in the season due to a quicker closing in of a denser canopy.

Number 3 - One of my favorites, the law of limiting factors. As you push a vine toward maximum yield you will eventually run into a factor required for getting that crop ripe, while maintaining a healthy vine, that will become limiting. Powdery mildew is an excellent example of this. When the vines are hanging a moderate to high yield per acre, some powdery mildew on the foliage is not considered to be worth treating, the vine can ripen the crop while building carbohydrate reserves. However, with an excessive crop, management of late season powdery mildew becomes much more important and will require much more time and

effort devoted to it than a vineyard with an appropriate sized crop.

The Take Home Message is: do a little detective work to see what you have in the vineyard to get the information necessary to make a good decision. Take the time to check each vineyard block, each variety within a block, and check areas separately if you know they have a tendency to be cold spots.

A guide to checking bud for cold injury can be found at: <http://www.nysaes.cornell.edu/hort/faculty/pool/budcoldinjury/Assessingbudcoldinjury.html>

If the pictures are a bit small for you try clicking on the picture, it should enlarge the pictures for you. As always, I welcome any questions on vineyard pest management. Just send an e-mail timweigl@netsync.net, call me at (716) 672-6830 or drop by the office at 412 E. Main St in Fredonia NY. (*Source: Lake Erie Regional Grape Program Update, March 5, 2003*)

Ribes

The Golden Gooseberry (and Purple, and Green, too!)

Steven McKay, Cornell Cooperative Extension of Columbia County

In agriculture we often talk about the fact that there is no "silver bullet", or ideal crop to grow that's without flaws.

Gooseberries are in that category...there are many benefits to growing the berry as a crop, and of course some drawbacks. And the fable about the goose that laid the golden egg? Well, there are gooseberry plants that do grow golden gooseberries. And maybe the parallel to the story is that if grown in amounts that the market will bear, one will make money with the crop. But if one gets greedy and plants many acres, the price (and fortune) will drop.

So what are the benefits of growing gooseberries? The first is that gooseberries are a crop not widely planted. There is room in the market for both frozen and fresh. Fresh gooseberries will command a higher price, and during the past five years there have not been enough to satisfy demand. In addition, these berries can be stored for long periods, up to months if done properly. Gooseberries also have relatively few pests to contend with in the Northeast. One insect, the imported currant worm, and two fungi, mildew and leaf spot. All three can usually be controlled with only four spray applications during the season, either organic or conventional. Resistant and immune varieties can also be chosen. Finally, if trained to the cordon system, they are easy to prune and harvest.

The disadvantages of growing the berries can begin with the thorns; if thorny, the plants are difficult to work with. If disease or the insect pest gets out of control, the plants can be debilitated rapidly. The general population in the US is not educated about gooseberries which limit the market. Consumer education will be necessary to push along and grow the market as more farmers grow the crop.

So back to the golden...and purple, and green, etc. Yes gooseberries come in a variety of colors sizes shapes, and textures. Colors include transparent and opaque

yellow, red, pink, purple, black-red, antique-red, green, white. The texture can be completely smooth to hairy. Shapes include ovals, round, teardrop. Sizes range from pea-sized to the size of a golf ball. Finally the combinations of these characters can make a berry either suited for culinary art, fresh dessert use, or cooking.

You may ask about flavor. When one bites into a gooseberry, a rush of juice, either sweet or slightly sour touches the tongue. The sour skin is then sensed. Finally the unique aromatic flavors are savored. Most gooseberries are either musky or with a light fresh stone fruit type of fruit flavor. The riper they get, the stronger the aromatics become. Gooseberries can be ripened to full flavor off the bush if picked at the green mature stage, and ripened in the refrigerator or at room temperature.

I recently returned from England where I collected a group of 21 of the best gooseberry varieties I have experienced over the past ten years. An assortment of types as described above is included. They were donated by the National Fruit Trials in Faversham. They will be available after going through about three years of quarantine, and then can be propagated by nurseries. I have been asked what my favorites are, and I can list a few here. 'Langley Gage' is the sweetest tasting, and it ripens white. A good flavored golden tear-dropped berry is 'Cousen's Seedling'. The largest berries have come from a green variety called 'Lord Elco'. Finally one of the heaviest bearing varieties is an oblong red berry called 'Ingall's Red Prolific'.

What varieties are available now? 'Invicta' is a large sized-green berry which is sweet, but not with a lot of other flavor.

'Captivator' is a tear-drop, antique red variety which is late, but very flavorful. Finally 'Hinnomaki Red' is a red variety that is well worth eating. My recommendation is to experiment, and to discover your favorite berry. (*Source: New York Berry News, Vol. 5, No. 2, February 21, 2006*)

General Information

Beltsville Fruit Lab Targeted for Closure

John S. Hartung, USDA

Due to budget constraints the Beltsville Fruit Lab has been targeted for closure. Please read the following letter from John Hartung, the research leader at the Fruit Lab in which he describes the current situation.

‘The Presidents budget was announced on February 6. The budget proposal for the Agricultural Research Service, contained therein, had an overall reduction of 11%. This figure included the elimination of many earmark funds from previous years as well as the elimination of 16 current base-funded projects spread around the nation. Among the basefunded projects slated for elimination was the entire small fruit program at Beltsville, MD. ARS officials assure me that the decision had nothing to do with the quality of the research performed by the Fruit Laboratory or the importance of the mission. It seems likely that the list of laboratories targeted for elimination was driven more by the budget cap proposed by the President than by priorities for agricultural research.

This is the first step in the annual federal budget cycle, and the Congress will ultimately decide the fate of the Fruit Laboratory between now and October 1. The Fruit Laboratory has many programs and talented scientists dedicated to the improvement of the small fruit industry in the United States: Programs include:

1. Breeding programs emphasizing cultivar and germplasm development of blueberries, strawberries and brambles adapted to the eastern United States. These varieties have high levels of disease resistance, flavor and horticultural characteristics that make them ideal for the industry. Ground- breaking cultivars include: ‘Blakemore’ strawberry (1929), which helped develop the shipped strawberry industry; ‘Surecrop’ strawberry (1956), which helped save the strawberry industry from red stele; ‘Earliglow’ strawberry, the worlds gold standard for flavor; the first thornless blackberry cultivars in 1966, and ‘Chester’ Thornless blackberry (1985) currently grown on 85% of the eastern US blackberry acres.
2. Advanced molecular genetic technologies are being used to accelerate the applied breeding programs. These include marker assisted selection for traits of horticultural value such as disease resistance, winter and spring frost tolerance and repeat blooming; genome wide mapping and sequencing of blueberry, strawberry, blackberry, and raspberry; transformation; and regeneration technologies. Molecular markers from the mapping research have been used by public and private sector researchers in several countries for cultivar identification and genetic mapping.
3. Research programs focusing on important diseases of strawberries, blueberries and cranberries have always been a focus of the research program. Emphasis is on the identification of resistant germplasm for the production of finished varieties that can be profitably produced with a minimum of pesticides. Diseases include anthracnose fruit rot of strawberry and blueberry, angular leaf spot of strawberry, root rots of strawberry, stem canker of blueberry and several viral diseases of strawberry and blueberry.
4. Physiological and molecular research on the basis of cold tolerance and winter hardiness are a focus of research on blueberry, with a goal to increase the range and yield of highbush blueberry cultivars.
5. Physiological and molecular research on the basis of high temperature stress is another focus of research on strawberry. Researchers seek to understand the role that temperature plays in reducing fruit set during summer months. This effort complements a long-term goal of the breeding program to expand the harvest season for the eastern strawberry industry to include a major portion of the year by developing repeat blooming cultivars.
6. Research focusing on the nutrient composition of berry fruits, and the specific roles of nutrients found in berry fruit in healthful living, have become a focus of the laboratory in recent years. This program enjoys extensive collaborations in the biomedical community and has recently demonstrated a protective effect of blueberries against a form of cancer in laboratory and animal studies.

Nearly all the strawberry breeding programs in the US can trace their origins, both in management and germplasm, to our Fruit Laboratory. At nearly 100 years old, the Beltsville strawberry breeding program is the oldest continuously running crop breeding program and the oldest continuously running strawberry breeding program in the country. Our strawberry germplasm is used by breeders all around the world for superior disease resistance and flavor. Our blackberry germplasm is used as a source of thornlessness, cold-hardiness, berry quality, flavor and high yield. Although the current strawberry breeding program is restricted to adapting cultivars to the eastern U.S., cultivars and germplasm produced by the program are used in breeding programs in California and in the Pacific west, Canada and Europe as sources of disease resistance and superior flavor. The Fruit Laboratory has recently released the first strawberry germplasm with resistance to bacterial angular leaf spot. This disease is of great importance in the upper Midwest, Canada, and

California, with potential in all strawberry producing regions. The germplasm has been incorporated into commercial varieties by Driscoll's Berry Company.

The blueberry breeding program is based in Chatsworth, NJ in close association with the industry that it serves. Although located in New Jersey, the blueberry breeding program is also national in scope and impact. This program benefits by its location at a facility operated and staffed by scientists from Rutgers University. Blueberry varieties developed by the USDA/ARS Fruit Laboratory have been and continue to be the industry standards. The laboratory based research programs in the Fruit Laboratory are excellent. Researchers in the Fruit Laboratory have received three significant research grants in the past year from the USDA National Research Initiative. The success rate nationally for this grant program is about 8%. This demonstrates the high quality of research in progress at the Fruit Laboratory. Scientists in the Fruit Laboratory are among a very small group of scientists carrying out molecular genetic research on small fruits.

If the Fruit Laboratory is closed, all of this will be lost, and the berry industry in the U.S. will lose their most essential technological asset: mission driven and focused research on berry fruits. This would come at a time when the public, more than ever, desires the availability of fresh berry fruit, year round, because of recent findings that berries are among the most nutrient-dense and health promoting foods. The void left by our program cannot be filled by existing programs at the University of Maryland, Cornell University, the University of North Carolina, at a time of declining funding for university plant breeding programs nation-wide. The industry simply will not survive in the long or even medium term without continuous support from vigorous and focused research programs.

What is to be done? If funding to the laboratory is to be restored, the stakeholder community must make their representatives in the House and Senate aware of the importance of the laboratory. Organizations of berry producers, nurserymen, retailers and university collaborators must initiate a letter writing campaign from their membership to their respective Congressional Representatives. It would be particularly beneficial to focus on members of the subcommittees on appropriations for agriculture, as well as the full appropriations committees in both the house and the Senate. Personal visits and telephone calls to the politicians would of course be very helpful as well when possible. In addition to demanding that funding for the Fruit Laboratory be restored, why not ask for an additional one million dollars annually to replace research programs in the Fruit Laboratory that had to be closed in 2006 due to lack of funds?

This matter must be handled quickly, since the agriculture committees appropriations hearings begin in March. E-mails are preferred over letters, since letters are subject to a very long delay for anthrax screening. My staff and I will be available to provide information to anyone as needed on this matter. However the law requires that we do this sort of thing on our own time, and never at work. So, to begin, contact me at johnhartung@comcast.net and 410-531-1985 (home) or 240-461-1329 (Cell). (*Source: New York Berry News, Vol. 5, No. 2, February 21, 2006*)

How You Can Help to Keep the BARC Fruit Lab Open

John Maas, USDA

The following is a message from John Maas the NASGA research chair on how you can help in the fight to keep the fruit lab open.

"Unfortunately, the USDA Fruit Laboratory, Beltsville, Maryland, is not included in the 2008 Federal Budget. This means that without your help the Fruit Lab will cease to exist, as will its satellite blueberry research station in Chatsworth, New Jersey.

Small fruit growers and nurserymen have greatly benefited from the research and varieties developed by the USDA Fruit Lab over the years. Strawberry, thornless blackberry, raspberry, and blueberry varieties from the Beltsville campus and from its satellite station in Chatsworth have expanded economic opportunities for fruit producers and nurserymen nationwide. It is now your turn to help the Fruit Lab. The Federal Budget is scheduled to be voted on by Congress in March. There is not much time to lobby for the Fruit Lab.

We at NASGA and the NASG Research Foundation implore you to contact your U.S. Congressmen as quickly as possible. Individual input of growers and nurserymen is essential for positive results: Congressmen pay more attention to voter needs than to organization letterhead appeals.

What you can do is to succinctly write about how the small fruit research and/or variety development from the Fruit Laboratory has benefited you economically; local adaptation, and/or customer preferences, and introduction of disease-resistant varieties has enabled small-fruit production possible where previously not profitable due to disease. Come to the point quickly in your messages, remembering that it is often staffers inexperienced with agriculture that actually read constituent mail and then summarize it for their Congressman.

The following Congressmen should also be included on your contact list:

Representative Stenny Hoyer, Representative from the 5th Congressional District in Maryland and Democratic Whip.

Mail: Representative Stenny Hoyer, House Democratic Whip, H-306 Capitol Building, Washington, D.C. 20515. (Phone: 202-225- 3130; FAX: 202-225-4300).

Email from Hoyer's web site at: <http://hoyer.house.gov/contact/index.asp>.

The 5th Congressional District in Maryland is where the Fruit Lab is located in the Beltsville Agricultural Research Center.

Hoyer in the past has been very supportive of the Center and, I believe, would be sensitive to and supportive of keeping the Fruit Lab, and the Phytonutrients Lab, in the '08 budget.

Senator Robert C. Byrd, Appropriations Committee.

Senator Robert C. Byrd, 300 Virginia St. East, Suite 2630, Charleston, WV 25301, or

Senator Robert C. Byrd, 311 Hart Building, Washington, D.C. 20510.

FAX (Charleston, WV office): 3043437144.

Email on ByrdsWeb page: http://byrd.senate.gov/issues/byrd_contact/byrd_contact.html.

(*Source: New York Berry News, Vol. 5, No. 2, February 21, 2006*)

Cornell Fruit Page and Small Fruit Nursery Guide Updated for 2006

Cathy Heidenreich, Cornell University

Perhaps you are wondering where to get those 'Jewel' strawberry plants for your new planting, or which nursery might stock the new 'Prime-Jan' blackberry. A good place to start is the Cornell online small fruit nursery guide, located at: <http://www.hort.cornell.edu/extension/commercial/fruit/Berries/nurseries/index.html> .

The guide is made available courtesy of Dr. Marvin Pritt's small fruit extension program and is open to nurseries who sell small fruit planting stock. Growers may go directly to the nursery listing to find contact information for a particular nursery, or may skim individual variety lists for each crop to see which nurseries carry the cultivar or cultivars they are looking for. Cultivars new for the 2006 season are listed in red for each crop. Small fruit listings include June bearing and day-neutral strawberries. Also included are summer fruiting red, black and purple raspberries, fall-bearing red and yellow raspberries, blackberries (thorny and thornless), and blackberry/raspberry hybrids such as dewberry, loganberry, Marion berry, boysenberry, tayberry, and wyeberry. The blueberry page includes highbush blueberries, bearberry, cranberry, ligonberry, and huckleberry. The Ribes nursery guide page includes cultivars of black, red, white and pink currants, gooseberries and jostaberries.

Sixteen nurseries are currently participating in the online guide, which lists varieties and the nurseries which carry them. This year four new nurseries have asked to be included in the guide, including TY-TY Plant Nursery, One Green World, Miller Nurseries, and Spooner Farms Nurseries. Other changes include an expanded section on small fruit specialty crops (other small fruit) which now includes things like beach plum, haws, medlars, mountain ash, persimmons, pawpaws, Elaeagnus, highbush cranberry, mulberry and quince, as well as previous listings for aronia, Cornelian cherry, elderberry, hardy kiwi, honeyberry, Saskatoon, and sea berry. (*Source: New York Berry News, Vol. 5, No. 2, February 2006*)

Year-Round Marketing of the Seasonal Agricultural Enterprise – Tips and Techniques

Bob Weybright, and Wen-fei Uva, Cornell University

Well, here we are in the midst of the crazy midwinter conference season. Driving from one conference to another, you can spend a considerable amount of windshield time (a phrase meaning non-productive time in the world of sales) during this time of the year, and depending on your cell phone coverage and roads driven to meetings, you may have some time that you can't be in the barn, in the field or on the phone. You can make those miles productive and work to your advantage by taking the time to discuss and brainstorm ideas with your business partners. As a follow-up to the January 2006 Smart Marketing article, the focus of this article is around some specific year round marketing techniques, strategies and ideas for your farm that you can consider.

Keep in mind that good ideas do not necessarily have to be new. Very few true NEW ideas surface each year. Often a modification, improvement in delivery, or a little personalization of a strategy already in place can make it more effective for your particular business. The fact that these thoughts are discussed in this article means there could be more than one farm evaluating the same idea at the same time.

So, let's begin with some ideas for:

Promotional Materials

- Select a format for your direct mailing or print materials so that they will be read. Regardless of method, technique, strategy or message chosen, take the time to personalize it and tie it to your business. For example, if you send a personalized greeting card during the winter holiday season, it will more likely be opened and not thrown out with the junk mail.
- Design the delivery schedule and promotional materials to be appropriate and timely. This means knowing when it is vacation season, shopping season, tax season. Think back to the exercise equipment flyers that you received right around the first of the year to help you work off those extra holiday pounds. During this time of year, consumers are tired of the cold and dreary winter so many sale ads are featuring spring merchandise to appeal to our emotional needs.
- Consider varying slightly the look of the marketing materials you use to avoid looking the same and being screened as repeats and thrown away. However, be careful with this technique as you don't want to confuse your image and message in your customers mind.
- Utilize true greeting cards and have them mean something to your customer. You can send an anniversary card to your best customers on the date of their first encounter with your business and use your database to personalize it with the number of years they have been a customer. They will be surprised and delighted that you care enough about them to know these details.
- Remember that many of your customers shop your business for other than buying something. Share your agricultural life with them. You can send out postcards showing the life you take for granted on your farm, such as beautiful orchard blooms, or you or your employees working hard plowing, pruning, planting, weeding, preparing for harvest, or cleaning up after the season. A dairy farm can show cows walking in fresh show, new baby cows, or a truck picking up milk for the processor. Don't forget to make it human. You can also show customers how they can enjoy your product just before your season starts as a means by which you invite them back for the year. It reminds them of the great times they had and gives them something to look forward to.

Off-Season Promotion

- Develop a portfolio of value-added products that your customer can use throughout the year. This will extend your season and get your name in front of your customers more often.
- Participate in activities in your community during the off-season, such as county/regional tourism meetings, spring home shows, events at malls during Valentines Day, St. Patrick's Day, etc.
- Find ways to use your space during off-season. Maybe someone will want to rent it for parties, corn roasts, etc. If you have a particularly scenic setting, consider hosting weddings and events.
- Collaborate with your neighbors. Organize a county-wide local food tasting involving farms throughout your county or region. This could be in partnership with the tourism agency that supports your region.
- Become a speaker for social organizations, such as boy/girl scout meetings, fraternal organizations (Lions, Rotary, etc.) and garden clubs. These groups meet regularly and want new topics. Once in the talk show circuit, you will become famous, and they will find you.

Creating Excitement and Teachable Moments

- Start a serial newsletter detailing stories of your operation, the history of the farm and family, and information about your products.
- Do educational events such as apple, strawberry or cheese tasting, and yes, you can do it with vegetables such as broccoli, carrots and lettuce. You know there are different varieties with different tastes but your customers may not. It doesn't have to be exotic, maybe just a forgotten fruit or vegetable, such as rutabagas, turnips, etc.
- Look for free or relatively low-cost press opportunities. In my home town region of Michigan, we always looked forward to an annual auction of the first flat of strawberries for the year (it meant summer was here) by local farmers. The first fruit event doesn't have to end in an auction. It could include presenting the flat or fruit to the oldest person living in the county, to the county executive, a government official, etc. you get the idea.
- There are always the tried and true school tours and educational events. If you have camps close by, they might be interested in having an agricultural component in their offerings. Experience has shown it could be very rewarding when you help to turn on the light for a young farmer to be!! Moreover, can anyone with kids say that they haven't been heavily influenced by their kids when making some purchase decisions?

- Start a sign campaign by your fields explaining to those passing by what is happening in the fields during the growing season. Lots of people love the idea of farming, and you can help them tie themselves to agriculture. If you are using interesting harvest equipment, you might consider doing an event around it so customers can come and watch. Combining, potato digging and hay bailing can be very exiting for non-farm customers. Step outside yourself to see what others see and to see what you take for granted.
- Plant new or experimental crops/varieties and offer free tastings, or invite customers to stop in and monitor their progress with you.
- Cross-merchandise and market at other venues such as dig-your-own potatoes at pumpkin picking, u-pick fruit with spring lawn and garden sales, or Christmas tree operations with corn chowder tasting. This can be particularly effective if you have a neighbor who complements your operation. You both win.
- Participate in regional and statewide awareness programs that relate to your industry. One of the most successful exhibits at the Iowa State Fair included a pig birthing exhibit with a webcam that allowed the public to check in on the status of the mother-to-be and her piglets any time, day or night. Our local county fair has a cow birthing exhibit that has people running to see the magic event when word spreads around the grounds that the calf will make its appearance at any moment.
- Contests always seem to stir up excitement with customers, especially if they become personal and include their expertise such as a recipe contest where you can have customers take your product, make the recipe and bring it back for judging. Other fun events we have seen include cherry pit and watermelon seed spitting, pumpkin carving, corn shucking, and zucchini cannon ball.

Regardless of what you choose to try, there are some critical details to attend to; otherwise, your time, effort and money will be less effective. You need to keep your database up-to-date and accurate, and monitor and use the database regularly. Also, it is helpful to keep an historical database. Only sending material to last year's customers means you are missing a significant number of customers from prior years. You can survey past customers who don't come again to find out why they didn't return. Maybe there is something you are missing when evaluating your business operations that could be improved upon.

Above all, try to look for individuals, other producers, small businesses or organizations with whom to collaborate as many of these activities as possible to avoid burning yourself out. And finally, it is more effective to be creative and not necessarily expensive. If you can use your marketing resources (time as well as money) well, you can spend more resources on fewer efforts to do them right, rather than developing a lot of less effective efforts.

Reprinted from: [Smart Marketing](#), February 2006. "**Smart Marketing**" is a monthly marketing newsletter for extension publication in local newsletters and for placement in local media. It reviews the elements critical to successful marketing in the food and agricultural industry. Articles are written by faculty members in the Department of Applied Economics and Management at Cornell University.

(*Source: New York Berry News, Vol. 5, No. 2, February 2006*)

Transferring the Farm Workshop Offered Throughout New England

Vern Grubinger, University of Vermont

A key to keeping our family farms in New England is to help farmers successfully transfer the farm to the next generation. During March 2006, farm families can learn the ins and outs about farm transfer in a day-long workshop offered in 4 locations throughout New England, thanks to a grant from the Northeast Center for Risk Management Education.

The workshop will help farmers navigate the farm transition process and will include presentations by extension specialists, attorneys, farmers, and land link and land trust personnel. Topics will include: elements to consider when transferring the farm to the next generation--whether they be related or not; communicating for success; goal setting with the family and farm in mind; keys to estate and retirement planning; tools to transfer labor, management and farm assets; and the roles that farm link programs and land trusts can play in farm transfers. The program will also

include a panel of farmers who will share their personal experiences with farm transfers.

Transferring the Farm will be offered in four sites: Vermont Agricultural Business Education Center in Brattleboro, Vermont on March 14; Egremont Inn (off Rte 23) in South Egremont, Massachusetts on March 15; University of Rhode Island University Club in Kingston, Rhode Island on March 16; and University of Maine Cooperative Extension Office in Bangor, Maine on March 22.

Each workshop is scheduled from 9:00 a.m. to 3:30 p.m. The workshop fee, which includes registration, a workshop packet and lunch, is \$15 per person if postmarked before March 6. After March 6, the fee is \$25 per person. Checks should be made payable to "UVM" and mailed to: Transferring the Farm Workshops, UVM Center for Sustainable Agriculture, 63 Carrigan Drive, Burlington, VT 05405.

For a brochure, please visit the web at www.uvm.edu/landlinkvt or contact the Center for Sustainable Agriculture at (802) 656-0233 or (802) 656-5459. Anyone requiring special accommodations or scholarship help to attend, should call (802) 656-0233.

The workshops are offered by a partnership of the following organizations: Land Link Vermont at UVM's Center for Sustainable Agriculture; Land for Good, Inc.; Maine Farm Link; and University Cooperative Extension Systems of Connecticut, Maine, New Hampshire, Rhode Island, and Vermont. (**Source:** *Vermont Veg & Berry News*, Feb. 2006)

Upcoming Meetings

March 16, 2006, 1:00 pm – 4:00 pm, *Blueberry Workshop*. Building #75 East Farm, Univ. of Rhode Island, Kingston, RI.

Program:

1:00 Welcoming remarks	Heather Faubert, URI
Winter moth, life cycle and control	Heather Faubert
Mummyberry, life cycle and control	Frank Caruso, UMASS
Indar section 18 for mummyberry update	Liz Lopes-Duguay, RI DEM
Review New England Pest Management Strategic Plan	Frank Caruso
Blueberry maggot & Cherry maggot fly life cycles & control	Heather Faubert
Blueberry varieties for southeastern New England	Round table discussion – All

The blueberry variety portion of the meeting will be for growers to exchange recommendations (and/or warnings) about different blueberry varieties.

To get to Building #75 at East Farm in Kingston:

From Providence: Take Route 95 south to exit 9 and merge left onto Route 4.

Travel south on Route 4 for 10 miles until it merges with Route 1 south.

Continue south on Route 1 for 3 miles until the intersection with Route 138 west

(You will pass the exit for Route 138 east to Newport)

Turn right onto Route 138 west and travel for 3 ½ miles to a traffic light.

Turn left at the light onto Kingstown Rd. and drive about ½ mile to East Farm Road.

Turn left onto East Farm Road and follow signs for Building #75.

Two hours of pesticide recertification credit is available. This credit is available to growers in all New England states.

For more information: call Heather Faubert at 401-874-2967 or email at hfh@uri.edu

March 18, 2006, 9:00 am – 4:15 pm, *New Hampshire Vegetable & Berry Growers Annual Meeting*. Alan's Restaurant, Boscawen, NH. \$20 member, \$25 non-member. 4 pesticide recertification credits available. **Contact** George Hamilton, 603-641-6060 or george.hamilton@unh.edu.

March 20, 2006, 7 pm, *Informational Workshop on New Hampshire Current Use Tax Rules*. UNH Cooperative Extension office, Hillsborough County Complex. **Contact** George Hamilton, 603-641-6060 or george.hamilton@unh.edu.

March 29, 2006, 9:00am - 4:00pm, *Maine Vegetable & Fruit School*, American Legion Hall, Alfred, Maine. an Extension workshop on topics such as growing small fruits, pest identification, growing techniques, composting; guest speakers from UMass, UNH Cooperative Extension and MOFGA; \$20 per person and includes lunch. **Contact** Mark Hutchinson E-Mail: markh@umext.maine.edu Phone #: 800-244-2104 . Preregistration required.

April 3, 2006, 9AM – 1PM. *MA Practical Skills Workshop: Growing Organic Apples*, **Contact:** Tom Szekely (781) 894-4370, seedpotato@yahoo.com, <http://www.nofamass.org/programs/skills.php>

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 of products mentioned in this newsletter over like products are intended or implied.