

# Berry Notes

Prepared by the University of Massachusetts Fruit Team

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### UP Front FYI:

**UMass 2011 Garden Calendar** - UMass Extension announces the availability of its ever-popular Garden Calendar for 2011, "PLANTS THAT INSPIRE." COST: \$12/single copies (includes shipping & handling). Bulk pricing is available on orders of 10 copies or more.

For images in the calendar, details, and ordering info, go to <http://umassgardencalendar.org/>.

**MDAR 2011 "Celebrating the Seasons of Massachusetts Agriculture" Calendar** - Calendars can be purchased for \$10 each (\$5 wholesale cost at 10 minimum). Send check payable to [Massachusetts Agriculture in the Classroom](#) to PO Box 345, Seekonk, MA 02771. \*Farms and businesses are encouraged to purchase at wholesale cost on consignment to have at your retail farms. Contact Debi at [debi.hogan@earthlink.net](mailto:debi.hogan@earthlink.net).

**2011 Raspberry & Blackberry Conference on January 5-7, 2011, in Savannah GA** - This conference is being held in association with the Southeast Regional Fruit and Vegetable Conference, a large, well-run conference with a major trade show and tracks of sessions on peaches, blueberries, strawberries, vegetables, organic production, food safety, and more that are also open to those registered for the Raspberry & Blackberry Conference. **Full conference information and registration** is now available on the web at [www.raspberryblackberry.com](http://www.raspberryblackberry.com) or 919-542-4037.

**30<sup>th</sup> North American Strawberry Growers Association Annual Meeting and 7<sup>th</sup> North American Strawberry Symposium on February 8-11, 2011, in Tampa FL** - "Sustaining Strawberry Production through Science" Speakers from 14 countries as well as 12 States and Provinces. **Plus!** Special Guest Speaker and Marketing Expert "Bill McCurry". For more information or to register visit [www.nasga.org](http://www.nasga.org) or contact Kevin Schooley at 613-258-4587 [info@nasga.org](mailto:info@nasga.org)

## STRAWBERRY

### Effects of Length of Blossom Removal on Production of Albion and Seascape Dayneutral Strawberries

Becky Hughes, John Zandstra, Adam Dale, Univ. of Guelph

Dayneutral strawberry plants have the capacity to flower and fruit continuously during the growing season. For many years, we have recommended that growers remove the blossom clusters from dayneutral strawberry plants for the first six weeks after planting to allow the crowns to establish before they fruit. We wanted to find out if this 6-week period could be reduced, decreasing costs and potentially improving productivity.

Trials were established in May 2007 to examine the effects of 4, 6 and 8 weeks of blossom removal following planting on the yield, berry size and time of harvest in the first and second picking years of dayneutral strawberries. The trials were located at the University of Guelph Research Stations in Cedar Springs and New Liskeard. Seascape was planted in New Liskeard, and Albion and Seascape were planted in Cedar Springs. Twenty-plant plots were established in twin rows with 20cm between plants and 30cm between rows on raised beds at 2m centers. The beds were covered with 1.0 mil black polyethylene mulch. All plots received regular drip irrigation. Fertilizer was applied through the drip system. Cultural practices were adapted to the local soil and climate. In New Liskeard the plants were covered with straw mulch and a 1.5 oz/sq yd floating row cover for the winter. A 1.0 oz/sq yd floating row cover was used in Cedar Springs.

Fruit was harvested from a 1-metre section of each plot twice weekly in the first and second year. Fruit was sorted into unmarketable and marketable (regularly shaped fruit with a diameter greater than 1.5 cm and no rot). The marketable fruit was weighed and counted, and berry weights were calculated.

In the planting year at Cedar Springs, there were no significant effects on either the yield or berry weight of Albion and Seascape (Table 1). However, the yield and

berry weight of Albion tended to increase as the length of blossom removal increased. The trend was the opposite for Seascape, as both the total and marketable yield tended to decrease as the blossom removal period increased.

As the time from bloom to harvest is around 30 days, you would expect to harvest sooner with a shorter blossom removal period. This was the case in the cooler climate in New Liskeard but not in Cedar Springs. In New Liskeard, the first harvest started 27 to 34 days after the end of blossom removal (Table 2). In Cedar Springs, the first harvests of Seascape all occurred at the same time regardless of the length of blossom removal. Higher temperatures in Cedar Springs may have delayed flower initiation in the treatments with 4 and 6 weeks of blossom removal. If this had not happened, perhaps the yields of these treatments would have been even higher.

The length of blossom removal in the planting year had no effect on yields or berry size in the second picking year in Cedar Springs (data not shown), however there were effects in the second year in New Liskeard (Table 2). The shortest period of blossom removal in 2007 resulted in the highest yields and berry size in Seascape in 2008 in New Liskeard.

In summary, when the blossom clusters were removed for only four weeks after planting, Seascape yields were not reduced in either Cedar Springs or New Liskeard. This should reduce costs and, provided it is not too hot, result in earlier harvests. Perhaps it is possible to decrease the length of blossom removal even further especially if large-crowned plants are available. A trial is planned for 2011 comparing the effects of crown size at planting and the length of blossom removal on production of dayneutral strawberries.

**Table 1.** Days to harvest, yields and berry weights in the first picking year in Cedar Springs<sup>1</sup>

Cultivar	Blossoms removed for <sup>3</sup>	Days to harvest <sup>2</sup>	Yield (kg/m) Total	Yield (kg/m) Marketable	Average berry weight (g)
Seascape	4 weeks	85	4.0	2.9	14.8
Seascape	6 weeks	85	3.9	2.7	15.0
Seascape	8 weeks	86	3.7	2.6	15.7
Seascape	Average	85 a	3.9 a	2.8 a	15.2 a
Albion	4 weeks	94	2.1	1.6	15.7
Albion	6 weeks	89	2.3	1.6	16.4
Albion	8 weeks	97	2.4	1.8	16.4
Albion	Average	93 b	2.3 b	1.7 b	16.2 a

**Table 2.** Results for the first picking year for Seascape in New Liskeard<sup>1</sup>

Blossoms removed for <sup>3</sup>	Days to harvest <sup>2</sup>	Yield (kg/m) Total	Yield (kg/m) Marketable	Av. berry weight (g)
4 weeks	62 a	1.1 a	0.6 a	11.3 a
6 weeks	75 b	1.1 a	0.6 a	10.0 b
8 weeks	83 c	1.0 a	0.5 a	9.9 b

**Table 2.** Results for the second picking year for Seascape in New Liskeard<sup>1</sup>

Blossoms removed for <sup>3</sup>	Days to harvest <sup>2</sup>	Yield (kg/m) Total	Yield (kg/m) Marketable	Av. berry weight (g)
4 weeks	62 a	4.4 a	3.0 a	10.8 a
6 weeks	75 b	3.8 ab	2.5 b	10.3 ab
8 weeks	83 c	3.3 b	2.2 b	10.1 b

<sup>1</sup> Values within columns with different letters are significantly different.

<sup>2</sup> Calculated from the planting date to the first harvest date.

<sup>3</sup> Blossoms removed in the first year only.

*Funding for this project was provided by the Ontario Berry Growers Association, the Agricultural Adaptation Council Can Advance Program and the University of Guelph/OMAFRA Enhanced Agreement.*

(Source: Ontario Berry Grower, Sept. 2010)

## RASPBERRY

### High Tunnels for Late Fall Raspberries and Blackberries

Marvin Pritts, Cornell University,

Producing fruits, vegetables and flowers out-of-season is one way to increase value and income because crops usually can be sold at a higher price than. The use of high tunnels is a technology that can be implemented just about anywhere for a modest cost, and can be used to bring crops on earlier or extend them later in the season. A high tunnel is simply a large hoop house covered in plastic, with sides that can be rolled up or opened for ventilation. High tunnels are not powered by electricity so they do not typically have fans, heaters or lights. Because the plastic covering is generally applied and removed seasonally, and because they are not powered with electricity, high tunnels are usually classified as temporary structures and may fall outside of certain taxing, building and zoning requirements.

Plants are set directly into the soil under the tunnel. Tunnels are high and wide enough to allow tractors through to spray and cultivate. A typical size is 15 to 30 feet wide and 96 feet long. Europeans have been using this technology for years, and often connect several tunnels together. The Chinese also have been using a type of tunnel technology to produce fruits

and vegetables. Because the United States is such a large country, we have found it economical to grow crops in the south and ship them north to extend the season. However, even in warm climates, tunnels are helping to improve fruit quality.

Raspberries are a high value crop that, in season, sell for more than \$3.00/lb. In the middle of winter, raspberries can sell for more than \$10.00/lb. Our goal was to produce raspberries in October and November, after the field season ends from frost and rain, and when the selling price of raspberries jumps.

We planted primocane-fruited raspberry varieties, managed them in various ways to delay their production beyond the normal late August-September season, and then fruited them under a plastic tunnel.



Primocane-fruited raspberries were planted in April of 2004 in 4 rows spaced 7 ft apart. Plots were 16 ft. long (6 per row). All canes were mowed to the ground in the fall of 2004 after summer's growth. In spring of 2005, we installed the framework for a tunnel over the planting.

The tunnel was covered with plastic on September 13, 2005, just prior to harvest.

Typically, a grower would prefer that fall-bearing types fruit early to avoid frost so that a full harvest can be achieved. Our objective was to delay fruiting of Heritage until late in the fall when they would be protected by the high tunnel, and when the availability of fresh raspberries is low and the price is high. Five treatments were used: an unmanipulated control, applying straw over plots in late February to delay cane emergence, mowing canes to the ground in early June shortly after they emerge, pinching primocanes (removing the top 4-6 inches) when they reach a height of about 2 ft., and pinching when canes were 3 ft. tall. Each of these manipulations delayed flowering and shifted production later in the season.

Harvest started in early September at the normal time. Tunnel sides were rolled up in the morning and closed in the evening to regulate temperature. As the weather turned colder, outdoor plants slowed their production and fruit quality deteriorated. October was characterized by record rainfall, so any outdoor fruits that survived were moldy and tasteless. Inside the tunnel, however, fruit quality remained high and harvest continued into November. On particularly cold nights, we covered the plants with row cover since tunnels do not provide a large amount of frost protection. On most nights, however, we simply closed the sides and doors of the tunnel while allowing some ventilation during the day.

We were concerned that pollination would be a problem in the fall, so we were anticipating requiring a bee hive.

However, native bumble bees were attracted to the house in large numbers, without adding a hive. They stayed in the house continuously, sleeping under the leaves and foraging on raspberry flowers during the day.

Yields were high; we averaged nearly 2 lbs. per ft. of row in control plots of Heritage. Because rows were closer together than in the field, our yield per unit area was about 4 times higher than yields from outdoor plantings. Since much of the fruit was produced out-of-season, we sold our fruit at the Cornell Orchards store for \$5.00/pint (\$6.70/lb). Assuming that all of the plants in the tunnel produced as well as the Heritage controls, and assuming that we could sell everything from the tunnel, our gross sales from our 96 ft long x 30 ft wide tunnel would have been more than \$6,000. We have repeated these results in four successive years with fall-bearing raspberries, and have no evidence that yields or quality have diminished. This year we will be harvesting the primocane-fruited blackberry Prime-Jan during September and October, extending the blackberry season from mid-July to well past frost.

Given that energy and transportation costs continue to rise, and knowing that high tunnels use free solar energy, it may be worth considering placing a few high tunnels on the farm to extend the season of the most highly-valued crops. (*Source: New York Berry News, Vol. 8, No. 10, October 2009*)

## BLUEBERRY

### Late-Season Weed Management Chores

Eric Hanson, Michigan State University

As harvest winds down in the late summer and fall, there are a couple weed management chores that will pay off in the future.

#### 1. Scout your fields.

Spend some time walking your fields and recording weed pressure and determine how successful your preemergent herbicide program was. Note where control was good and poor, and record which weeds are present. Is weed pressure related to the soil type or herbicides used last spring? This information will help in formulating your herbicide programs for next spring. Also note where perennial weeds have become established.

#### 2. Treat tough perennial weeds.



Fig 1. Virginia creeper vine; Photo: E. Hanson.

Late summer and fall is a good time to work on tough to control perennial weeds such as virginia creeper vine (Fig. 1), grapevine (Fig. 2), milkweed, goldenrod, poison ivy, and brambles. These perennials generally do not respond to soil applied herbicides, but can be managed by careful applications of glyphosate (e.g. Roundup) late in the summer. Glyphosate is effective on these weeds, but can also kill blueberries. Perennial weeds are killed because the chemical moves to belowground plant parts. Translocation is a two-edged sword. Glyphosate absorbed by blueberry leaves and green bark also moves in the bush, and can kill whole canes or bushes. Use extreme care to avoid contact with green blueberry tissues (stems and leaves). For spot spraying perennials:



Fig 2. Wild grapevine; Photo: E. Hanson.

- use 2% glyphosate solutions
- add ammonium sulfate to improve absorption
- avoid all green blueberry tissues
- apply when weeds are still green

Weeds such as blackberry, Virginia creeper, and grapevine may need to be pulled down out of bushes to treat safely. This takes time and costs money, but consider what these weeds are costing you in lost income. If a bush is covered by Virginia creeper vine, yield will be reduced by 80%. This easily equates to a \$ 6-10 loss in income. The loss is incurred each year and grows as the vines spread to affect neighboring bushes. Investing 15 minutes to carefully pull vines out of that bush and safely treat them on the ground is money well spent.

### 3. Fall application of preemergent herbicides.

April/May is the most common time to apply preemergent herbicides in Michigan blueberries, but fall applications can be effective also. October/November is usually less busy than the spring, and rainy periods in the spring can hamper timely applications. We recently compared spring and fall applications of several standard herbicides; most provided comparable control. Fall may be better than the spring for control of some weeds. Marestail, for example, can emerge in the fall, so spring applications are too late for control. Consider experimenting with fall applications. Chateau is a good candidate material for the fall, as are combinations of Chateau with older materials such as Karmex or Princep. (*Source: Michigan Blueberry Newsletter, Volume 4, Issue 17.*)



Fig 3. Greenbriar on blueberry bush; Photo: E. Hanson.

## GRAPE

### Fall Fertilization

Alice Wise and Lailiang Cheng, Cornell University

Fall fertilization may be feasible this year with harvest a little earlier than normal and green functioning canopies. Applying nutrients now gives them time to move through the root zone, especially important for lime, potassium and calcium. The need for nutrients is determined by soil and petiole analysis as well as vineyard manager experience and observations. It is not always straightforward, thus experience plays a very important role. Cost might factor in as well.

**\*\*Lime** – Application now allows tweaking in the spring if necessary. Heavier doses can be applied in fall. A major lime application in spring can induce nutrient imbalances especially in young plantings. Consider dolomitic (high Mg) lime if Mg is low.

**\*\*Gypsum** – Soils with adequate pH but low calcium benefit from gypsum (calcium sulfate). Typical rates are 1 t/a or less. Pelletized is available and easier to handle though more expensive.

**\*\*Boron** – Boron is applied in minute quantities (up to several lbs./a of product applied under the trellis) thus it is best to soil apply with the herbicide sprayer or to have a custom blend made with another nutrient such as K and/or N. If spun on, the rate should be adjusted accordingly. In the research vineyard, soil results came back at 0.1 ppm with petioles 35-45 ppm (sufficiency range is usually 25-

50). Given tight budgets and adequate B in petioles, we are electing to skip it for now.

**\*\*Potassium** – K applications are necessary every few years especially with large crops in dry years i.e. 2010. It is usually broadcast rather than spread under the trellis. Organic sources are available though can be pricey. We tried greensand as an organic source of K and found it to be excruciatingly slow release.

**\*\*Nitrogen** – Some growers have used this strategy successfully. If trying fall N, do it earlier rather than later and try to leave untreated sections of vineyard for comparison. Cornell grape nutritionist Lailiang Cheng suggests that a fall application of foliar urea might be a good alternative to ground application. This should be applied to green canopies at least 7-10 days before a hard frost.

**\*\*Compost** – Many sandier vineyard blocks would benefit from compost application. It does take money and effort to get it on, but we have found it beneficial for the research vineyard. The need for nitrogen is reduced as the compost slowly releases N over 2-4 years. If the compost is not well composted (it has a high C:N ratio), fall application would prevent the competition for N between vines and soil microbes. (*Source: Long Island Vegetable & Fruit Update, No. 28, Sept. 30, 2010*)

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## GENERAL INFORMATION

### Vole Management in Berry Plantings

Cathy Heidenreich, Cornell University

Voles, also known as meadow or field mice, can do a lot of damage to bushberry and caneberry plants during winter months from feeding on plant roots to girdling canes and gnawing on crowns below the snow cover. Population monitoring and management can help reduce losses incurred to blueberries, raspberries and blackberries and other berry crops by these small mammals. (Below: Vole feeding on apple. Photo courtesy P. Curtis)



#### Vole Life History and Identification

Twenty-three species of voles occur in the United States. Most range in size from 5 to 9 inches in length, and 1 to 2 ounces in weight. They are generally gray-brown in color with grayish underparts. Compact is the term that best describes voles, which are stocky rodents with short legs and tails. These features, combined with small eyes and partially hidden ears make them ultimate tunnelers.

Home range for voles is usually 1/4 acre or less but this varies with food supply, population density, and other factors. Voles spend their days underground creating systems of subterranean tunnels and runways. These tunnels are used to feed on plant roots, store food, and raise young. Tunnels have numerous surface entrances and a single burrow system may provide habitat for several adults and young.

Nocturnally active also, voles travel and feed at night along surface runways above ground. Runways consist of 1 inch wide depressions or matted trails in grass and ground cover that have characteristically close clipped vegetation and contain feces and bits of chewed debris. (Right: Vole tunnel system. Photo courtesy I. Merwin.)

Voles do not hibernate, reproducing for most of the year with peaks occurring in the spring and fall. Highly prolific, voles produce 1 to 5 litters per year with litters ranging in size from 3-11 young; average litter size is 3 to 6. Females are reproductively mature in 35 to 40 days. Young voles reach maturity within 21 days.

Vole lifespan is relatively short, ranging from 2 to 16 months. Populations tend to be cyclic with peaks occurring every 2 to 5 years. Cold winters can greatly reduce vole population numbers. Numbers are also affected by other climatic conditions and food supply.

Voles feed on a wide variety of plants but most commonly feed on grasses and forages. Other plant food sources include seeds, tubers, bulbs, and rhizomes. They are also known to occasionally feed on insects, snails, and animal remains.

The preferred habitat for most voles is an area with heavy cover (grasses, grass-like plants, leaf debris or litter). When populations are high they may spill over from these habitats into fruit plantings, wind breaks, and cultivated fields.

The two types of voles most common to our area are the Meadow vole (*Microtus pennsylvanicus*) and the Pine or Woodland vole (*M. pinetorum*). The Meadow vole is the most common species found in the northern US and Canada. Ranging in size from 5.5 to 7.5 inches in length the meadow vole has gray to yellow brown fur with blacktipped hairs. Northern subspecies of this mammal may have reddish fur overtones. Meadow vole underparts are gray, sometimes washed with silver or buff; its tail is bicolored. Preferred habitats for *M. pennsylvanicus* are wet meadows and grasslands.

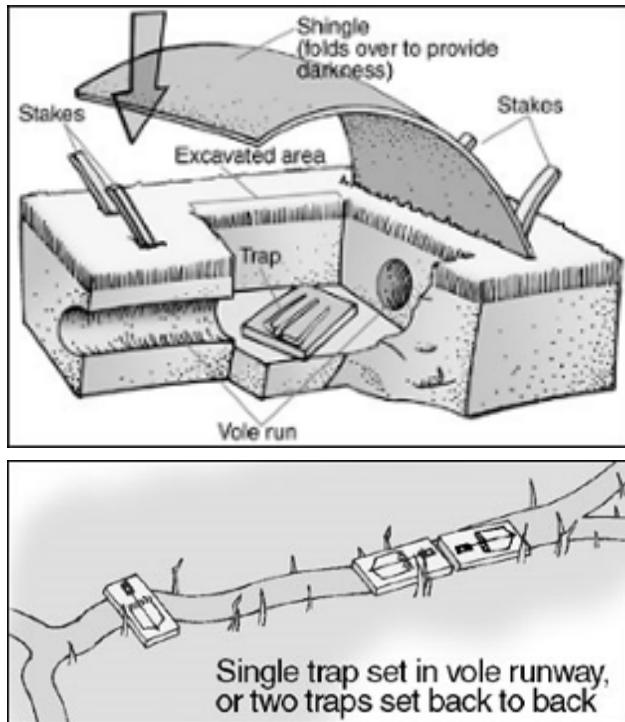
Pine vole, common to the eastern US, is smaller than Meadow vole, ranging in size from 4 to 6 inches in length. These voles are brown in color with soft dense fur. Underparts are gray mixed with yellow to cinnamon. The tail is one colored or just slightly bicolored. Pine vole's preferred habitats include deciduous and pine forests, abandoned fields, and orchards with heavy ground cover.



Trapping is an effective way to positively identify vole species present in an area. A snap-type mouse trap is sufficient for this purpose. Bait the trap with a small piece of apple or a peanut butter oatmeal mixture. Some excavation may be needed to position traps in pine vole runs (below). Place a

bent roof shingle over the trap to form a protective cover for the trap. Allow sufficient height between the trap and the shingle roof for the trap to spring without hitting.

Meadow vole traps should be placed at right angles to surface runways or back to back inside runs (*below*).



### Recognizing Vole Damage to Berry Crops

Voles feed on berry crop roots but may also girdle berry root crowns and canes. Girdling typically occurs in fall and winter. Damage may also occur to irrigation systems through vole feeding.

Girdling alone is not solely indicative of vole damage to bush and caneberries. Rabbits and other rodents may also girdle berry canes. Rabbit girdling marks are larger than those of voles and not as distinct. Rabbits also clip off branch tips with clean cuts.

Vole girdling is typically 1/8" wide by 3/8" long and 1/16" deep. Marks occur at various angles and in irregular patches. This type of feeding, coupled with evidence of extensive burrowing, burrow entrances and surface runways may indicate Meadow vole damage. Pine vole spends most of its time and causes its damage *below* ground. In comparison, Meadow vole spends considerable time and causes most of its damage *above* ground. Extensive vole tunneling also creates air pockets in the root zone and may disrupt water movement through the planting.

### Monitoring Vole Damage and Making Management Decisions

Monitoring may be done in spring, summer, and fall to track vole population changes. Fall monitoring however, is most often used in making management decisions.

Monitoring should be done when temperatures are still above freezing during a period with little or no rainfall. Construct monitoring stations consisting of short pieces of PVC pipe or pieces of roofing shingle or other material to provide shelter. Place shelters over a tunnel entrance or section of runway. An apple wedge serves as bait under the shelter. Set out 4 to 8 monitoring stations per acre. Check apple wedges 24 hours after placement for evidence of feeding. If inclement weather is a factor, leave bait stations with wedges in place to allow ample time for night feeding. Score each station as positive or negative for feeding. In general, management is recommended when 40% or more of the bait stations show positive feeding damage after 24 hours. For more in-depth information on this technique see: *Integrated Pest Management for Blueberries - A Guide to Sampling and Decision Making for Key Blueberry Pests in Northwest Washington*.

<http://whatcom.wsu.edu/ipm/blue/>.

### Vole Management Strategies

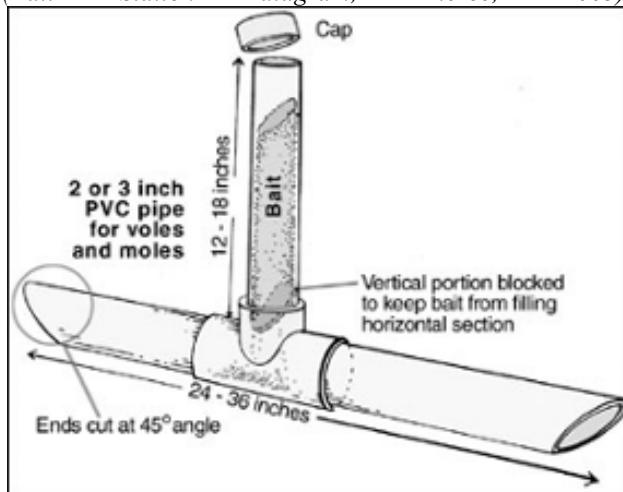
Cultural practices are effective in reducing vole populations in berry plantings. Weeds, ground cover and litter should be eliminated around bushes as much as possible. Grass alleyways should be mowed regularly, especially in spring and fall. Mulch used for weed management should not excessively cover bases of canes or crowns.

Voles are excellent swimmers. Unmanaged waterways, rights-of-way, and ditch banks provide excellent vole habitat. Manage these adjoining areas carefully to reduce vole numbers. Keeping surrounding vegetation to a minimum through mowing, spraying, or grazing may also reduce vole populations. Tillage of surrounding non-berry crop areas also helps reduce vole damage. Tilling removes cover, kills some voles outright, and destroys burrows.

In addition to cultural practices, some growers opt to use pelletized baits with rodenticides to further reduce vole populations. These products may be broadcast applied to whole plantings or applied by hand near entrance holes and in runways. Broadcast and hand applications, while easier to implement, have been found to be generally less effective than bait station use. Broadcast baits tend to degrade more quickly as they have full exposure to the environment. Moreover, their wide dispersal causes less frequent vole ingestion/exposure. This in turn may lead to bait-shyness through ingestion of sub-lethal doses of the bait.

Rodenticide bait stations (*below*) protect bait from moisture and reduce the likelihood of bait consumption by non-target animals. Stations should be activated in fall if population numbers are high and maintained through spring if populations remain high during winter months. .

(Bait Station diagram, Pierce, 2003)



They may be constructed from PVC pipe or other water repellent materials. Place bait stations at 10-ft intervals in infested areas. Repeat baiting again after 5 days. After 21 days, repeat the apple sign test to check efficacy of control measures.

Two types of rodenticide baits are currently available for vole population management: baits containing anticoagulant compounds such as chlorophacinone provide protection throughout the winter, and zinc phosphide containing baits which are a onetime application for quick knock down of rodent populations.

Zinc phosphide baits such as Prozap zinc phosphide pellets or ZP Rodent bait Ag contain 2% zinc phosphide. These products are restricted use pesticides which may be purchased and applied only by certified applicators. They are acutely toxic to all vertebrates (humans, domestic animals, wildlife). Broadcast applications by cyclone seeder or hand (follow all label precautions!) of these products may only be made during the dormant season (after final harvest and before leaf emergence in the spring); PHI for bushberries and caneberries is 70 days. Hand applications should consist of throwing tablespoon amounts of bait into heavy cover along bushes, rock out crops, fence lines and runways. Never apply these materials to bare soil. Zinc phosphide baits should not be applied when ground is snowcovered, or when rain or snow is forecast within 48 hours of application.

Zinc phosphide baits should reduce vole populations within 72 hours of treatment. After the vole population has been reduced, an application of anticoagulant bait will assist in reducing the number of voles re-populating the planting during winter months.

Anticoagulant baits, such as those containing chlorophacinone or diphacinone as active ingredients, are more toxic to voles than to other birds and mammals. These baits have a lower percentage active ingredient (0.005%) and require multiple feeding events by voles to be effective. Risk to non-target wildlife is minimal with

these products when they are used according to label directions. These products may be broadcast or hand applied. For hand applications, place small quantities of bait in runways and cover with roofing shingle (*right*). For broadcast applications, apply material with mechanical spreader to vegetative cover, avoiding application to bare ground. A second application is recommended 20-30 days after the initial application. As always, read and follow all label directions whenever applying rodenticides or other pesticide products. (*Roofing shingle cover over baited surface runway. Photo courtesy M. Fargione.*)



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## **Three Agricultural Business Planning Courses Ready for January – March 2011**

Three formats serve the full spectrum of individuals who make up Massachusetts agriculture:

**Explorers** - For those who are thinking about profitable farming or expanding a hobby on an income-generating scale. “Exploring the Small Farm Dream” materials from the New England Small Farm Institute (NESFI) are augmented by MDAR individual guidance in a group setting for making informed decisions about whether and how to proceed. 4-sessions over 5 weeks on weekday evenings, \$125.

**Planners** – For those a step or two beyond Explorers who have access to land and a stronger sense of what they want and are capable of doing. “Planning for Start-up” provides a gut check before making more significant investments of time and money. This course, developed jointly with NESFI, includes a month of individually guided research and support between sessions 2 and 3. Requires completion of Explorer, another similar course, or self guided study using the Explorer workbook. Applicants must have reached the decision to farm on a revenue generating scale. 4-sessions over 8 weeks on weekend mornings, \$125.

**Established Farmers** – For those already operating an agricultural enterprise with at least two years of production and sales. “Tilling the Soil of Opportunity” from NxLevel offers a chance to assess, regroup, assemble documentation for decision making, consider redirection, plan expansion, or propose ownership transfer. This course draws on extensive peer experience, Instructor knowledge and guest speakers - with the addition of substantial individual technical assistance at course conclusion. 10 sessions over 10 weeks on weekday evenings, \$200.

Each course is limited to 12 farms/potential agricultural businesses, with an option to bring a key partner. Full attendance is required to get expected results. Fees are kept low through MDAR support, with the small farmer investment demonstrating serious intent and a commitment to the class community.

Please request additional details and an application for the course that fits you best. Courses fill quickly in the Fall. Email requests to [rick.chandler@state.ma.us](mailto:rick.chandler@state.ma.us), or consult the MDAR website at the following link: Agricultural Business Training Program. (*Source: MDAR Farm & Market Report, Vol. 87, No. 5, October/November*)

## **Massachusetts “Seal of Commonwealth Quality”**

On Tuesday, September 28, MDAR Commissioner Scott J. Soares along with farm, fishery and forestry leaders unveiled the “Seal of Commonwealth Quality” at a kick-off event on the Boston Common. The event marked the official introduction of the Commonwealth Quality Program and served to propagate program benefits, as well as announce broad collaboration between MDAR and industry professionals in establishing fundamental program prerequisites.

Following Commissioner Soares’ opening remarks, DCR Commissioner Rick Sullivan observed the role he anticipates Commonwealth Quality will play in establishing a much-needed buy local consumer base for the forestry sector. Representatives from produce, dairy, forestry, aquaculture and lobster commodity groups took turns speaking about their participation in developing the program. Members of special interest groups, state agency employees and



political figures were present to learn about the innovative joint initiative.

Commonwealth Quality is designed to promote local agriculture and help consumers identify products that are produced, harvested and responsibly processed in Massachusetts. Central to the initiative, a licensed label will distinguish Massachusetts products that meet comprehensive program requirements, as well as federal, state and local regulations. The highly structured nature of the program and the collaboration behind it represent a significant advancement over traditional state label programs.

Beginning in January 2011, the Seal of Commonwealth Quality will appear on certified Massachusetts produce, dairy, seafood and lumber products at farmer stands, farmers' markets and retail locations statewide. More information about the Commonwealth Quality Program can be found at [www.mass.gov/cqp](http://www.mass.gov/cqp). (*Source: MDAR Farm & Market Report, Vol. 87, No. 5, October/November*)

## **Massachusetts Small Farm Bills**

*Rich Bonanno, UMass Extension*

The small plot farming bill changes MGL 40a Section 3. Please note that it does not impact 61a (lots of folks misinterpreting this due to the fact that both laws reference 5 acres).

**Small Plot Farming** - In the past decade, there has been a significant increase in the number of small farms in the Commonwealth. As small farms became more prolific, it became clear that they needed relief from local zoning ordinances along the lines provided to those farms of 5 acres or more (MGL 40a S3). This was the gist of the Small Plot Farming bill. While the original small plot farming bill died in Committee, emphasis on this bill at County Farm Bureau legislative breakfasts prompted legislators to include provisions in an economic development bill which ultimately passed. Under provisions of this act, a farm of two acres or more, that makes at least \$1000 annually per acre in gross receipts will enjoy the same zoning protections afforded larger farm parcels. The act does NOT change Chapter 61A, and only relates to zoning matters. Thanks to Senators Bruce Tarr, Karen Spilka, Michael Moore, Jamie Eldridge and Representative Brian Dempsey for moving this forward.

**Farm Winery Bill** - The economic development bill, which carried the day for small farms, did the same for farm wine growers. Under the new provisions, state law now allows Massachusetts farm wine growers to sell their products at agricultural events, including farmers markets. Sellers would need to obtain a permit from the municipality in which they plan to sell. MFBF was part of

a coordinated effort to push for the state to allow the sale of wine at ag events. Senators Eldridge, Ben Downing and Spilka, and Representatives Straus and deMacedo played key roles in the success of this effort.

**School Nutrition Bill** - This bill is designed to ensure that kids have access to healthy food in school. While much of it focuses on actions schools must take, there are provisions that promote the purchase of local farm products. When going out to bid, public colleges and universities must attempt to procure MA grown or produced products - the same as already in place for public schools. The school must purchase local product if offered, so long as the price does not exceed more than 10 percent of other available products. The new law also clarifies existing provisions for public schools, stating that schools can make multiple purchases from farms, without going out to bid so long as the contracts do not exceed \$25,000. Kudos to Representative Jeff Sanchez for sponsoring this bill and to Representative Steve Kulik and Senators Stan Rosenberg, Steve Brewer and Bruce Tarr for ensuring that agriculture was included.

**Food Policy Council** - Following a model started in several other states, the Governor recently signed legislation creating a Food Policy Council. The Council is intended to bring representatives of the hunger, health and agricultural communities together to advise legislators and policy makers on how to create a stronger and healthier local food system. Representative Kulik and Senators Rosenberg, Brewer and Tarr were key to the passage of this bill.

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## **UPCOMING MEETINGS:**

**Oct. 21, 2010. UMASS Extension Twilight Meeting – Greenhouses and High Tunnels; shelled corn heat and suitable crops.** Indian Head Farm, 232 Pleasant St., Berlin MA. For more information go to [http://www.umassvegetable.org/ed\\_programs/meetings/twilight\\_meetings.html](http://www.umassvegetable.org/ed_programs/meetings/twilight_meetings.html).

**Oct. 28-30, 2010. Berkshire-Pioneer RC&D Fall Conference - "Feeding Ourselves, Fueling Ourselves".** UMass Amherst, MA. For more information and registration visit <http://www.berkshirepioneerrcd.org/conference.php>.

**Nov. 3-4, 2010. Northeast Greenhouse Conference and Expo, 2010.** DCU Center, Worcester MA. For more information, go to: <http://www.negreenhouse.org/>.

**November 4, 2010. SEMAP's Annual Meeting.** Gallery X, 169 Williams St. New Bedford MA. 5:30- 8:30. \$15. For more info or to register Please RSVP to [scogswell@semaponline.org](mailto:scogswell@semaponline.org); or call the SEMAP office phone at 508-295-2212 ext.50 or Go to <http://semaponline.org/semap/classes-events/>.

**November 5, 6, & 7 2010. Maine Organic Farmers & Gardeners Association Farmer to Farmer Conference.** Point Lookout Resort, Northport, ME. Registration closes Oct. 8<sup>th</sup>. For more information see <http://www.mofga.org/Default.aspx?tabid=293>

**Nov. 8, 2010. GAPS Food Safety Planning Workshop for Growers.** UVM Extension. Colchester VT. More information available soon.

**November 8-10, 2010.** *Southeast Strawberry Expo*, at the Wyndham Hotel in Virginia Beach, VA. Workshops and farm tour on Nov. 8, educational sessions and trade show on Nov. 9-10. For more information, visit [www.ncstrawberry.com](http://www.ncstrawberry.com) or contact the NC Strawberry Association, 1138 Rock Rest Rd., Pittsboro, NC 27312, 919-542-4037, [info@ncstrawberry.com](mailto:info@ncstrawberry.com). Exhibitor inquiries welcome.

**November 11-13, 2010.** *Northeast Sustainable Ag Working Group It Takes A Region - 2010: A Working Conference*. Desmond Hotel and Conference Center, Albany, NY. For information and registration go to <http://www.ittakesaregion.org/>.

**November 22, 2010.** *USDA Good Agricultural Practices (GAP) Training Program*. UMass Extension and Mass Dept. of Ag Resources. Farm Bureau Federation Office, 249 Lakeside Drive, Marlboro, MA 01752. 12:30 PM – 5:00 PM. Registration deadline: 11/12/10. For more information contact Doreen York at [dyork@umext.umass.edu](mailto:dyork@umext.umass.edu)

**December 1, 2010.** *CT Pomological Society Annual Meeting*. Gallery Restaurant, Blasonbury CT. For more information and program details, contact Lorraine Los at 860-486-6449 or [lorraine.los@uconn.edu](mailto:lorraine.los@uconn.edu).

**December 2, 2010.** *USDA Good Agricultural Practices (GAP) Training Program*. UMass Extension and Mass Dept. of Ag Resources. Sheraton Springfield/Monarch Place Hotel, One Monarch Place, Springfield, MA 01144. 12:45 PM – 2:30 PM; 3:30 PM – 4:45 PM. Registration deadline: 11/19/10. For more information contact Doreen York at [dyork@umext.umass.edu](mailto:dyork@umext.umass.edu)

**December 7-9, 2010.** *Great Lakes Fruit Vegetable and Farm Market EXPO*, DeVos Place Convention Center, Grand Rapids, Michigan. For more information: <http://www.glexpo.com>.

**Dec. 10, 2010.** *GAPS Food Safety Planning Workshop for Growers*. UVM Extension. White River Jct. VT. More information available soon.

**January 6-7, 2011.** *NARBA (North American Raspberry and Blackberry Growers Association) Annual Meeting*, Savannah, GA. For information see <http://www.raspberryblackberry.com/> or contact Debby Weschler at E-mail: [info@raspberryblackberry.com](mailto:info@raspberryblackberry.com).

**January 31 – February 3, 2011.** *Mid-Atlantic Fruit and Vegetable Convention* at the Hershey Lodge in Hershey, PA. For more information visit [www.mafvc.org](http://www.mafvc.org).

**February 8-11, 2011.** *7th North American Strawberry Symposium and joint North American Strawberry Growers Association Meeting*. Tampa, Florida. Details available soon.

**March 5, 2011.** *Planting, Cultivating, and Marketing Juneberries in the Great Lakes Region*. NYS Agricultural Experiment Station, Geneva, NY. More information available soon.

**June 22-26, 2011.** *10th International Rubus and Ribes Symposium, Zlatibor, Serbia*. For more information contact: Prof. Dr. Mihailo Nikolic, Faculty of Agriculture, University of Belgr, Belgrade, Serbia. Phone: (381)63 801 99 23. Or contact Brankica Tanovic, Pesticide & Environment Research Inst., Belgrade, Serbia. Phone: (381) 11-31-61-773.

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