UMASS EXTENSION

Vegetable Notes

For Vegetable Farmers in Massachusetts

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CROP CONDITIONS

Hurricane Irene seems to be the topic of conversation for most growers this week. Heavy rains and strong winds are anticipated. Main season crops are still coming in. Potato harvests are continuing fall cucurbits are almost starting to come in, sweet corn at least ¾ harvested, and with other early successions well past harvest, there are more and more fields opening up. Get cover crops in soon to take advantage of remaining weeks of warm weather to establish good roots and scavenge leftover nutrients.

Late blight continues to pop up – we've had reports recently in NY, VT and NH, and there have been additional occurrences in ME. To date we have had no confirmed infections in MA. The weather has been conducive to late blight development and all monitored locations are reporting severity values that indicate a short (5-7 day) spray schedule.

Cucurbit downy mildew has been confirmed for the first time in Mass. At this point in the season many fields are mature enough to handle losing foliage, but treating with downy mildew specific fungicides is important for any field where you still need to protect the foliage. See update below for details.

CUCURBIT DOWNY MILDEW UPDATE.

Our first confirmed case of downy mildew has been reported in Rehoboth, MA. Conditions are going to be favorable for the spread of this disease over the weekend and early next week. If you're not already including a downy mildew specific material in your spray rotation now is the time to start, at least for crops where protecting the foliage is still important. Downy mildew will not directly affect fruit, so this is not necessary for mature fields that will be harvested soon. This disease requires a different class of fungicide for good control – the materials you're using for powdery mildew and other typical diseases may not be effective against downy mildew. Apply these chemicals in a tank mix with contact fungicides such as chlorothalonil, copper, or sulfur and rotate among chemical classes to prevent fungicide resistance development in the pathogen population. Some effective materials against downy mildew include:

propamocarb HCl (Previcur Flex): 1.2 pt/A. (2 dh, REI 12 h, Group 28). Alternate with a contact fungicide (copper, chlorothalonil, sulfur).

cyazofamid (Ranman): 2.1-2.75 fl oz/A. (0 dh, REI 12h, Group 21). Tank mix with an organosilicone surfactant or non-ionic surfactant. Alternate sprays of Ranman with a fungicide with a different mode of action.

cymoxanil (Curzate 60 DF): 3.2-5.0 oz/A. (3 dh, REI 12h, Group 27). Use only in combination with of a labeled rate of a protectant fungicide (copper, chlorothalonil).

dimethomorph (Forum): 6 oz/A. (0 dh, REI 12h, Group 15). Apply only in combination with a labeled rate of another non-group 15 fungicide. Do not make more than two sequential applications of Forum before alternating to a fungicide with a different mode of action.

famoxadone plus cymoxanil (Tanos): 8 oz/A (3 dh, REI 12h, Groups 11 & 27).Tank mix with an appropriate contact fungicide (chlorothalonil or copper).

fenamidone (Reason 500 SC): 5.5 fl oz/A. (14 dh, REI 12h, Group 11). Do not rotate with other Group 11 fungicides such as Quadris, Cabrio, or Headline.

fluopicolide (Presidio): 3-4 fl oz/A. (2 dh, REI12h, Group 43). Must be tank mixed with another fungicide with a different mode of action.

PREPARING YOUR GREENHOUSES FOR A HURRICANE

With hurricane season upon us and Irene potentially heading our way it's time to think about preparing your greenhouses to survive the high winds we might be seeing soon. The article below contains some advice from Skip Paul of Wishing Stone Farm, who grows his crops on the coast of Rhode Island and has some experience with surviving heavy weather. Also, remember that before a rainstorm is an important time to apply fungicides for managing diseases, but sufficiently before so there is time for the spray deposit to dry and become rainfast (check the label). Development of most fungal and bacterial diseases is promoted by storms as they provide ideal conditions for pathogen dispersal and infection, with the notable exception of powdery mildews. Lastly, the MDAR Division of Animal Health is reminding everyone that establishing a plan of action in preparation of any type of emergency can minimize injury and property loss. A template to assist you in developing a farm emergency plan is available on our website at www.mass.gov/agr/animalhealth/farm_emergency.htm.

How to Prepare.

Hurricane preparedness should start with checking all your connections and structural members every time you change your plastic (every four years). For instance if there is a weak link in a chain and a nut vibrates off of a critical connection, you will start a cascade of other failures. Take the two hours required to check and evaluate the connections on your houses between coverings. Don't just throw on another covering and call it done. Evaluation includes cleaning the bugs out of your inflation fans. Keeping the two sheets a bit over inflated during a storm is a good thing. This requires patching the myriad of small holes and nicks. We just open up the inflation fan air intake (all the way) and get that plastic extra tight. Don't forget to readjust the inflation fan intake slide vent after the storm - you don't want to over stretch your plastic. It will shorten its life over time.

The next biggest problem is junk around the farm that can get going in the wind and rip a hole in the plastic, which leads to the next most important thing: don't let the wind get in the structure. The wing on an airplane lifts as much from the wind speed of the wind going over the top and lifting the wing from the rear as it does from getting under the wing. In a similar way, the air going over the top of the greenhouse wants to lift the downside. Buttoning up the structure will help keep the air from doing this. Obviously, keeping the wind from getting inside is important as well. If we know we will lose power, we duck tape the intake shutters to keep the wind out. Keep your large doors closed by putting something in front of them. Most greenhouses don't have good door latches for their doors; if they vibrate loose or fail, wind will get in.

Probably the most important decision is whether to cut or take off the plastic. I once heard that the increase of wind pressure or damage increases 80% when you go from 75 mph to 100 mph. If you add rain water to that, you have a force most of us have never experienced. We have always thought that if we know we are getting 100+ mph winds then we should take the plastic off...the structural damage to the greenhouse doesn't warrant trying to make it through the storm. Plus, at 100+ mph you probably will lose your power and there is another reason you will be glad you took the plastic off. Uninflated greenhouse coverings are like a large boat spinnaker gone wild...It can be dangerous and just beat the hell out of the structure. Tip: if you do take the plastic off; try to do it in two separate pieces and put it away somewhere dry. If you let it slump off the greenhouse and fill with water, the capillary activity of the water between the sheets will make it impossible to recover the house until they are separated and dry.

People with Haygrove (that includes us). Don't even think about trying to make it through anything over 65 mph. Your manual will tell you it isn't made for that kind of wind. Especially since their solution to lower wind speeds is to open the structure up! That can work up to 55 mph, but above 65 the wing on the airplane physics kicks in and you will be sorry. Our Haygrove had one end crushed in a sudden wind gust last season; it can happen. Those with Rimol moveable houses

(or greenhouses on skids a la Elliot Coleman) should heed the same warning: like the above airplane wing conclusion, small pipes driven in here and there will do you no good when the wind gets over 75 mph. It's better to take the plastic off than to see your greenhouse rolling over your neighbor's hayfield.

Probably the most important thing is to respect the peak of the storm. Don't switch plans and try to do any of this in the midst of the storm. The wind is dangerous and adding heavy rain to that can be catastrophic…I once saw a sailor flipped 30 feet into the air while trying to hold a spinnaker line that got loose. Be careful with this storm.

- Skip Paul, Wishingstone Farm, RI; intro by Andy Cavanagh, UMass Extension

CROSS STRIPED CABBAGEWORMS

Formally restricted to the South, this insect is now a serious problem on Brassica crops in southeastern New England. One of the major differences between this insect and the other brassica caterpillars is that the eggs are laid in a group, and caterpillars feed in a group on one plant so that it's covered with big holes like buckshot.

Identification. Unlike the three major caterpillar pests on Brassicas, the cross-striped cabbageworm (CSC) lays its eggs in batches (3 to 25) rather than singly. Egg batches are yellow, flattened, and attached to the lower leaf surfaces. The caterpillars are light bluish-grey on top and green underneath, with numerous black bands across their backs and a yellow line down each side.

Life Cycle. It has 2 to 3 generations per year and is most abundant on late-season plantings. Unlike the three major caterpillar pests on Brassicas, the cross-striped cabbageworm (CSC) lays its eggs in batches (3 to 25) rather than singly. Egg batches are yellow, flattened, and attached to the lower leaf surfaces. Larvae grow to 3/4"-long in 2 to 3 weeks.

Crop Injury. Larvae either produce small holes in leaves until only veins remain, target terminal buds and sprouts, or burrow into heads. Plants with larvae are often completely skeletonized. Adjacent plants may be left undamaged.

Monitoring & Thresholds. Spray if 5% of the plants are infested with Cross-Striped Cabbage Worm. Use selective insecticides to preserve parasitic wasps.

Cultural Controls. Plow under debris after harvest and control wild mustard and Shepard's purse to help minimize pest population.

Chemical Controls. An Asterix (*) indicates a restricted use material. For the insecticides listed below, one product trade name and formulation is provided for each active ingredient (common name) as an example of rates, days to harvest (dh), REI, and special instructions. In many cases there are other products available with the same active ingredient. A spreader-sticker should be used with insecticides on these crops as it will help provide better coverage and more insecticide persistence.

Bacillus thuringiensis aizawai (XenTari): 0.5 to 1.5 lb/A (0 dh, REI 4h, Group 11). See the general recommendations for B.t. kurstaki below. OMRI listed.

Bacillus thuringiensis kurstaki (Dipel DF): 0.5 to 1 lb/A (0 dh, REI 4h, Group 11). Must be ingested; apply when larvae are actively feeding. Use high rate at cool temperatures. Store at room temperature. Use a spreader-sticker. OMRI listed.

chlorantraniliprole (Coragen): 3.5 to 5 oz/A (3 dh, REI 4h, Group 28). May be applied to soil at planting, through chemigation and as a foliar spray; see label for details. For foliar application use an effective adjuvant.

emamectin benzoate (Proclaim*): 2.4 to 4.8 oz/A (7 dh, except for leafy brassicas and turnip greens which are 14 dh, REI 12h, Group 6). Rotate to another product after two applications.

endosulfan (Thionex* 50W): 1.5 to 2 lbs/A (21 dh cabbage, REI 4 days, Group 2A). 1.5 to 2 lbs/A (21 dh, REI 4 days, Group 2A). **NOT ALLOWED** (phased out) for broccoli, Brussels sprouts, cauliflower, collards, kale, kohlrabi, or mustard greens. Use is allowed only for cabbage, and only until July 31, 2012.

indoxacarb (Avaunt): 2.5 to 3.5 oz/A (3 dh, REI 12 h, Group 22).

methoxyfenozide (Intrepid 2F): 8 to 10 oz/A (1 dh, REI 4h, Group 18). Insect growth regulator. Works on all instars. Feeding stops within hours, but death takes several days.

pyrethrin (PyGanic EC5.0): 4.5 to 18 oz/A (0 dh, REI 12h, Group 3A). OMRI listed.

pyrethrins + piperonyl butoxide (Pyrenone): 1 tsp/gal, or 1 to12 oz/A (0 dh, REI 12h, Group 3A).

tebufenozide (Confirm 2F): 6 to 8 oz/A (7 dh, REI 4h, Group 18).

BLOTCHY RIPENING IN TOMATOES

Blotchy ripening and graywall are problems on some tomato crops. Blotchy ripening gets its name because the fruit ripen unevenly, with patches that either don't ripen or do so after the rest of the fruit are over-ripe. Graywall is aptly named because the walls or skin of the tomatoes appear somewhat gray in color. There is also a dark brown necrosis in the wall of the tomatoes, which is apparent when cut. These two disorders are believed to be the same, but with different symptoms. There are varietal differences in susceptibility and in the way the symptoms appear. On some varieties the symptoms appear as graywall, while on others they appear as blotchy ripening.

The exact cause of these problems is not known, but environmental factors and perhaps disease may trigger the symptoms. Anything that suddenly stops or slows plant growth may induce this problem. This can be an excess or lack of moisture, low or hot temperatures, a period of cloudiness, or a nutrient problem such as insufficient nitrogen or potassium. Tobacco mosaic virus (TMV) may also trigger these symptoms. Typically the symptoms appear about two or three weeks after the event.

Some of these environmental factors are beyond your control, but it is practical to maintain prober fertility and adequate soil moisture and prevent TMV.

–John Howell

BLACK ROT (GUMMY STEM BLIGHT)

Life Cycle. Black Rot is the fruit rot phase of the fungal disease gummy stem blight. In the Northeastern United States, the disease occurs mainly on winter squash, pumpkin, and greenhouse cucumber. The pathogen, *Didymella bryoniae*, is both seed and soil-borne. It may be carried in or on seed. In the field, the fungus can survive in infected plant residue for more than one year. Disease development is favored by relative humidity over 85% and leaf wetness periods greater than one hour. The optimum temperature for disease development is 75-77°F. Leaves are penetrated directly by the fungus, stems are infected through wounds or the expansion of leaf lesions, and fruit are infected through flower scars or wounds or possibly through direct contact with the soil when conditions are favorable. On fruit held for fall sales or winter storage, a water-soaked lesion develops, usually associated with an injury to the rind, and soon black rot develops. Large Halloween pumpkins are more susceptible to black rot than smaller pie types.

Wounding, striped cucumber beetle injury, aphid feeding, and powdery mildew all predispose plants to black rot infection. Control of powdery mildew by chemicals or by planting resistant varieties can significantly reduce black

rot in pumpkins and winter squash.

Symptoms & Signs. Symptoms vary on different cucurbits. On pumpkin and winter squash, symptoms on the leaves begin as a marginal necrosis followed by larger, wedge shaped necrotic areas, often with a yellow halo. Stem cankers develop in the cortical tissue and a brown, gummy exudate is produced. Small fruiting bodies may appear as black specks in diseased tissue. Stems may be girdled on seedlings, killing the plant. On older plants stem cankers lead to wilt and decline. Small, water-soaked spots develop on fruit. These lesions grow larger as the disease develops and exude gummy material. They often contain many black speck-like fruiting bodies. Check fruit weekly for signs of black rot.

Cultural practices to reduce black rot:

- Powdery mildew tolerant cultivars should be selected and powdery mildew should be controlled, as this disease predisposes the crop to black rot.
- Control cucumber beetles and aphids as these insects can increase the severity of black rot in your crop.
- Use certified disease-free seed for all cucurbit plantings.
- Rotate out of cucurbits for two years. Fields in the second or third year of winter squash or pumpkin often develop black rot.
- Crop debris should be plowed under promptly after harvest.
- Reduced tillage systems with cover crop residue on the soil surface may improve fruit quality.
- Cure pumpkin and squash at 85°F for two weeks before storage. An empty greenhouse may work well for this.
- Avoid chilling injury to winter squash and pumpkins, which is a cumulative effect from temperatures below 50°F. Store fruit at 50° to 55°F and ~60% relative humidity. For winter squash in long-term storage, pay special attention to storage temperatures when outdoor temperatures drop in December and January. Chilling injury activates dormant black rot lesions and increase losses in storage.

Satisfactory control of black rot can usually be obtained by regular applications of protectant fungicides, which are generally applied as part of a powdery mildew spray program. In early crops or non-rotated fields you may want to apply a protectant alone before the onset of powdery mildew.

- excerpted from "Diseases of Cucurbit Crops:Scouting & Management Guide" by Andy Cavanagh, Ruth Hazzard, M. Bess Dicklow, Rob Wick, and Amanda Brown

PUMPKIN AND WINTER SQUASH HARVEST AND STORAGE

Winter squash and pumpkin fruit sitting in the field face a daunting list of diseases and insects – not to mention possible passing hurricanes -- that could threaten fruit quality. Early harvest and careful storage is often preferable to leaving fruit in the field. This is especially true if you know that your pumpkins or squash are in fields that are infected with Phytophthora blight.

Since the pumpkin market lasts from Labor Day to Halloween, pumpkins may need to be held for several weeks before they can be marketed. When is it best to bring then in, and when to leave them in the field? If the vines are in good condition, the foliage can protect the fruit from sunscald. If foliage is going down from powdery mildew or downy mildew, this may help with ripening and make harvesting easier, but also increases the risk of sunscald or injury to pumpkin handles. There can be extra work involved in bringing fruit in early, especially for growers who normally have pick-your-own harvest. However, we recommend that growers harvest as soon as crops are mature and store under proper conditions, if it is feasible. Attention to curing and handling will go a long way toward improving the life of winter squash and pumpkin fruit. If you need to hold fruit in the field for pick-your-own, or any other reason, using a protectant fungicide (e.g. chlorothalonil) can help protect from black rot, powdery mildew and some of the other fruit rots.

What about pumpkin stems, ie, handles? In some cases, it's the handle that sells the pumpkin. Pumpkins may not be marketable if the handle is broken off or dried up. Ideally, if the timing is right, pumpkins would be cut one to two weeks prior to marketing. However, if they are harvested now they may sit much longer before being sold. The discussion of how early to cut handles is an old one with many different opinions. One view is that it is advisable to cut the handles from the

vine to save them from advancing powdery mildew and reduce shrinkage. Whether or not handles shrink and shrivel after cutting is affected by plant stress, genetics (variety), moisture and temperature conditions, and disease. There are many diseases that can affect handles, including Plectosporium, Fusarium, Black Rot, and Alternaria. Again, proper curing and storage conditions are key.

Ideally, pumpkins should be harvested when fully mature, with a deep orange color and hardened rind. However, as long as pumpkins have started to turn color, they will ripen off the vine if held under the proper conditions. While not ideal, this may be preferable to leaving them in the field if conditions are not favorable. If necessary, pumpkins can be ripened in a well-ventilated barn or greenhouse. The best temperatures for ripening are 80-85 degrees Fahrenheit with a relative humidity of 80-85%. Night temperatures should not drop below the sixties. Even if pumpkins are ripe, a period of curing can improve storage life. The curing period should be about 10 days. During this process, the fruit skin hardens, wounds heal and immature fruit ripens – all of which prolongs the storage life.

Pumpkins should be stored in a cool, dry place. Ideal temperatures are between 50° and 60° F and relative humidity of 50 - 70%. Higher humidity allows condensation on the fruit with risk of disease, and lower humidity can cause dehydration. Higher temperatures increase respiration and can cause weight loss. Temperatures lower than 50° F cause chilling injury (see squash, below). In a greenhouse, temperature can be managed with ventilation on sunny days. Unless it is quite cool, heat is not likely to be needed if the house is closed up at night.

Often it is not feasible to harvest pumpkins early and store them until they can be marketed, and so they must be 'stored' in the field. If vines and fruit are healthy, storage in the field can be successful for a few weeks. If the vines die back, damage to the fruit from sun, disease and insects is more likely. In any case, it is important to scout for insects feeding on the fruit and handles, which may include squash bug nymphs or adults, or striped cucumber beetle. Control them if damage is evident. In fields that have a history of Phytophthora blight, Fusarium fruit rot, or black rot, field storage may increase the incidence of these problems, particularly if we have a period of wet weather or a major storm while fruit is sitting in the field. This has been one of the causes of significant losses in recent years, and one reason that we recommend bringing fruit in as soon as it is mature.

Growers often plan to store winter squash for much longer than eight weeks. Fruit that are free from disease and haven't been subject to much chilling (below 50°F) should be selected for long-term storage. Fruit from fields where Phythophthora is present are not the best choice for storage.

Storage life depends on the condition of the crop when it comes in and your ability to provide careful handling and a proper storage environment. All fruit placed in storage should be free of disease, decay, insects, and unhealed wounds. When harvesting squash and pumpkins, it is important to handle the fruit with care to avoid bruising or cutting the skin. Despite its tough appearance, squash and pumpkin fruit are easily damaged. The rind is the fruit's only source of protection. Once that rind is bruised or punctured, decay organisms will invade and quickly break it down. Place fruit gently in containers and move bins on pallets. Use gloves to protect both the fruit and the workers. Removal of the stem from squash (butternut, Hubbard, etc.) will also decrease the amount of fruit spoilage because the stems frequently puncture adjacent fruit, facilitating infection.

A period of curing after harvest can help extend storage life of squash. This may be done in windrows in the field -- especially with a series of warm, dry days -- or by placing squash in a warm, dry atmosphere (70-80°F) with good air circulation, such as a greenhouse, for up to two weeks. This pre-storage treatment permits rapid drying of the outer cell layers, and when combined with a dry atmosphere for storage inhibits infections that can take place at this time. Any clean cuts during harvest are likely to heal over and are no longer a source for injury or infection.

Take care to avoid subjecting squash to chilling injury. Chilling hours accumulate when squash or pumpkin is exposed to temperatures below 50°F in the field or in storage. Injury increases as temperature decreases and/or length of chilling time increases. Chilling injury is of particular concern with squash intended for storage because it increases the likelihood of breakdown. If squash has been exposed to chilling injury it should be marketed first and not selected for long-term storage. Remove squash from the field if temperatures are likely to drop below fifty degrees for any length of time.

After curing, move squash or pumpkins to a dry, well-ventilated storage area. Pressure bruises can also reduce storage life, so avoid rough handling, tight packing, or piling fruit too high. Fruit temperature should be kept as close to the temperature of the air as possible to avoid condensation, which can lead to rot. Ideally, the storage environment should be kept at

55-60°F with a relative humidity of 50-70%. Lower relative humidity increases water loss, resulting in reduced weight, and if excessive, shriveling of fruit. High relative humidity provides a favorable environment for fungal and bacterial decay organisms. Under ideal conditions, disease-free pumpkins should have a storage life of 8-12 weeks and butternut squash up to three or four months. Even if it is difficult to provide the ideal conditions, storage in a shady, dry location, with fruit off the ground or the floor, is preferable to leaving fruit out in the field.

As you plan for storage and marketing, keep in mind that the market for pumpkins seems to get earlier every year. Fall decorative displays include pumpkins, and those displays begin showing up as Labor Day approaches. One of the best solutions to early-maturing pumpkins may be finding an early market.

--R. Hazzard; many thanks to the following sources: J. Howell, A. Carter, and Robert Wick. University of Massachusetts; Dale Riggs & Robert Rouse, Pumpkin Production Guide, NRAES; Maurice Ogutu, University of Illinois Extension, in Vegetable Growers News, August 2004; and Liz Maynard, Purdue University; Andy Wyendandt, Rutgers Univ.

SWEET CORN UPDATE

Location	Z1	EII	Total ECB	CEW	FAW
CT Valley					
Sunderland	2	0	2	23	0
Hadley	2	0	2	25	0
Feeding Hills	0	0	0	19	1
Amherst	0	0	0	31	0
Hatfield	1	1	2	13	0
Berkshires					
Sheffield	1	0	1	31	0
Central & Eastern MA					
Still River	0	0	0	62	0
Concord	10	1	11	22	0
Northbridge	6	0	6	12	0
Spencer	2	0	2	17	0
Lancaster	3	1	4	20	0
Dracut	0	0	0	20	0
Rehobeth	1	0	1	28.5	0
Tyngsborough	10	1	11	78	0
NH					
Litchfield, NH	0	2	2	48	6
Hollis, NH	0	1	1	19	0

The latest plantings of sweet corn in the state are in or entering fresh silk stage. We are hoping that hurricane Irene does not do too much damage to the plants that are waiting for a fall harvest. Pest pressure from European corn borer is down but corn earworm pressure is high. Most sweet corn growers are maintaining a 4-5 day spray schedule in fresh silk. If maximum daily temperatures are below 85° F for 2-3 days, spray intervals may be extended by one day.

The second generation of ECB is dwindling down. Remember European corn borer survives the winter in the larval stage, protected inside the stalks of wild plants and corn stubble. Destruction of corn stubble in the fall, or in early spring before emergence of moths, is important for controlling overwintering populations of ECB.

Corn earworm trap counts are still high and are anticipated to climb after the weekend storm rages through. To determine when to start insecticide sprays and how often to spray, use the average moth counts per trap then divide by the number of nights since the last count was taken. Late summer infestations are keeping a lot of growers on a short interval spray schedule. If you think you are too late to control CEW that has already entered below the silks, do a selective harvest. Because damage is usually found in the tips of the ears you may still be able to salvage infested.

Continue monitoring for all sweet corn pests, we can expect FAW and CEW populations to stick around for the next few weeks. It's never too early to start thinking about next year. Are you interested in starting a sweet corn scouting program on your farm? You can start by looking at the Sweet Corn IPM Scouting Guide online at http://www.umassvegetable.org/SweetCornIPMScoutingGuide.htm. The guide provides more information on scouting and color pictures of caterpillar pests of sweet corn and feeding damage. This guide also includes a section on what you need to get a sweet corn IPM program started on your farm. Hardcopies are available by calling the Vegetable Program at 413-545-3696 or emailing Amanda Brown, brown@umext.umass.edu.

Corn Earworm Threshold		
Moths/Night	Moths/Week	Spray Interval
0-0.2	0-1.4	no spray
0.3-0.5	1.5-3.5	every 6 days
0.6-1	3.6-7	every 5 days
1.1-13.0	7.1-91	every 4 days
Over 13	Over 91	every 3 days

UPCOMING MEETINGS

Irrigation Systems at Harlow Farm

August 30, 2011 - 4:00pm - 6:00pm

Harlow Farm, 117 Deep Root Dr Westminster, VT

The Harlow Farm in Westminster is a 150 acre certified organic farm in its third generation of farming. In this workshop, you'll take a tour of Paul Harlow's operation, including his various fields of irrigation. He'll discuss his investment in irrigation equipment, his systems for laying the irrigation (both overhead and drip), timing, and labor and crops that require special attention such as carrots, parsnips, lettuce and strawberries. You'll also visit a neighboring greenhouse. For more information contact info@nofavt.org, (802) 434-4122

Twilight Meeting at 4-Town Farm

4-Town Farm, 90 George St., Seekonk, MA 02771

September 14, 2011

Topics covered will include Deep Zone Tillage, Season extension using minimally heated tunnels and greenhouses, Commonwealth Quality certification, and using the NEWA pest forecasting system.

New England Vegetable & Fruit Conference & Trade Show

December 13-15 2011

Center of New Hampshire Radisson Hotel, Manchester, NH

www.newenglandvfc.org

The premier fruit and vegetable conference in New England will once again offer three full days with over twenty educational sessions that cover all of the major vegetable, berry, and tree fruit crops, as well as various special topics.

More details including registration materials will be posted at www.newenglandvfc.org.

For more information contact Jon Clements, (413)478-7219, clements@umext.umass.edu.

Vegetable Notes. Ruth Hazzard, editor and Amanda Brown and Andrew Cavanagh, assistant editors. Vegetable Notes is published weekly from May to September and at intervals during the off-season, and includes contributions from the faculty and staff of the UMass Extension Vegetable Program, other universities and USDA agencies, growers, and private IPM consultants. Authors of articles are noted; author and photographer is R. Hazzard if none is cited.