



## June /July 2006 Volume 4 Issue 6

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gardening/](http://www.umext.maine.edu/piscataquis/gardening/)

University of Maine Cooperative Extension (UMCE) is the major educational outreach program of the University of Maine, with offices statewide. UMCE provides Maine people with research-based educational programs to help them live fuller, more productive lives

### Goal:

The goal of the Piscataquis Gardening Newsletter is to provide timely information on practical, sustainable, research-based horticultural practices, tools and techniques which will improve home gardening success. Topics on growing and caring for vegetables, fruits, flowers, and landscaping for the home will be included as well as pest management techniques. Information will be based on our U.S.D.A plant hardiness zone. Upcoming events and programs of interest will also be included.

If you have a question, feel free to contact me and I can include it in our garden question section.

Sincerely,

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### Controlling Weeds by the Stale Seedbed Method

Weeds decrease yields of vegetables more than any other pest. If you have had problems keeping your weeds under control in your garden you might try the stale seedbed method with glyphosphate or flaming. Here are the steps.

- Prepare the soil as if you are about to seed or transplant. The soil should have good moisture (irrigate if the weather has been dry).
- Wait as long as possible so that weeds will germinate and emerge. Allow the weed seedlings to grow to the third leaf stage.
- If you are using transplants, flame the soil or make an application of glyphosate (if registered for the crop) to the soil surface before transplanting.
- If the crop will be seeded, the glyphosate or flaming may be applied just before or just after seeding. Caution – If the crop has already been seeded, be careful that the flaming process does not injure the crop seed or the unemerged crop seedlings.

The main idea with this technique is that most of the weeds that have the potential to germinate, because of their placement in the upper 1" to 2" of soil, will usually do so within two weeks after the soil is prepared. Glyphosate or flaming will kill these weeds. By not redistributing the soil any more than is absolutely necessary during the seeding or transplanting process, no new weed seeds will be brought to the soil surface. Any cultivation that is performed should be kept extremely shallow (3/4" to 1" maximum) so as not to reposition any additional weed seeds. Note – Check current herbicide recommendations by crop to determine if glyphosate is registered for use in that crop. For cucumbers, melons, squash, pumpkin,

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peppers, and eggplant, glyphosate must be applied at least three days prior to seeding or transplanting.

Finally, in cases where glyphosate is registered, it can also be used for control of perennial weeds, such as quackgrass and dock, prior to soil preparation. After application, delay tillage for three to five days. There is no residual weed control. See label for directions. Flaming will have minimal effect on perennial weeds.

Where trade names are used, no discrimination is intended and no endorsement by Cooperative Extension is implied.

Source: 2006-2007 New England Vegetable Management Guide, [www.nevegetable.org](http://www.nevegetable.org) page 43.

Source: Murphy, T., *Garden Friends and Foes*, <http://whatcom.wsu.edu/ag/homehort/pest/VLB.htm>



Mature larvae on skeletonized Viburnum leaf.

## Bug of the Month – Viburnum Leaf Beetle

This native of Europe feeds exclusively on many different species of viburnum, which include: *Viburnum opulus* (and cultivars), *V. dentatum*, and *V. rafinesquianum*. Adults have also been found feeding and laying eggs on *V. lentago*, *V. acerifolium*, and *V. trilobu*.

This pest over-winters as an egg on the twigs of the host plant. Eggs hatch in May of the following year and the young larvae begin feeding on the host plant foliage. Larvae are usually found feeding together in groups. Pupation occurs 8-10 weeks later and the first adults begin to appear around the middle of July. Adults are active up until the first frost. Mating occurs, starting in July, and the female will chew small holes in the twigs where she lays her eggs. She then proceeds to cover these individual eggs with excrement giving the bark of these twigs a roughened appearance.

Each female produces up to 500 eggs. (Source: [Insects That Feed on Trees and Shrubs](#). Johnson and Lyons).

Both the larvae (immatures) and the adults feed voraciously on the foliage of the host plants. Heavily attacked plants will have every leaf skeletonized by this pest. It is the only pest that causes such injury to viburnums. Adults are small and brown and somewhat difficult to see. The immatures are dark in color and can be found feeding in groups on the host foliage.

Homeowners need to be aware of the signs of this beetle's injury along with knowing what the different life stages look like. One should also monitor for the eggs on the stems of viburnums. When found, this pest should be treated to limit its injury and spread. Physical removal of this pest from the host plant is difficult to obtain especially when many plants are involved. Therefore, pesticide treatments may be necessary to manage this pest, once found.

Source: *Insects & Mites – Defoliators – Viburnum Leaf Beetles*, UMass Extension, University of Massachusetts at Amherst, [http://www.umassgreeninfo.org/fact\\_sheets/defoliators/viburnum\\_leaf\\_beetle.html](http://www.umassgreeninfo.org/fact_sheets/defoliators/viburnum_leaf_beetle.html)

## Lawn Care Ideas

Are you thinking twice about growing large lawns in this day and age of \$3-per-gallon gas? When you think of lawn care and its impact on energy sources, the act of mowing the grass is probably what comes to mind first. Traditional lawn care, in fact, consumes oil and natural gas in numerous ways:

Each year, a family with a one-third-acre lawn will:

- consume five gallons of gas for mowing and trimming;
- apply the equivalent of seven gallons for fertilizing;
- burn up to five gallons for watering; and
- consume an additional gallon for cleanup.

That's 18 gallons of fuel per household. With 120 million U.S. households, that's the equivalent of almost 2.2 billion gallons of fuel used for lawn care each year.

What are some alternatives?

Mowing - Use an electric or non-powered push mower. An electric mower maintaining one-third of an acre for a season consumes only \$3 of electricity on average. Electric mowers are 75 percent quieter than gas mowers. Push mowers, of course, consume no fuel and make little noise.

Watering - Avoid large lawns in areas with water

shortages. Grow drought-tolerant grasses or other groundcovers. Save rainwater and gray water. Water deeply once per week on average, rather than frequently.

**Fertilizing** - Use natural, organic fertilizers not derived from fossil fuels. Recycle grass clippings, mow higher and mix 5 percent clover into your lawn seed.

**Cleanup** - Compost everything. All yard wastes can go into compost piles.

**Seed Mix** - Consider "No – Mow" grass mixture when reseeding lawns. No-Mow Mix forms a dense turf, thrives in both sun or partial shade. It requires little or no mowing. Little water or fertilizer needed after established. Biologically reduces weed growth, reduces lawn maintenance dramatically.

*Source: email from Gary Fish, Maine Board of Pesticides Control <http://www.thinkfirstspraylast.org> referring to information from Paul Tukey and PPPlants and Safe Lawns, <http://www.safelawns.org/> and No-Mow Mix, [Prairie Nursery, 800-476-9453 http://www.prairienursery.com/](http://www.prairienursery.com/)*

## Groundhog / Woodchuck in your garden?

Woodchuck in wire trap. Photo by R.A. Casagrande, URI

The woodchuck, or groundhog, is a member of the squirrel family. It has a compact, hefty body, short, strong legs with long, curved

claws on the forefeet for digging and a short tail. It is heavily furred and dark brown in color, weighs from 5 to 10 pounds. Although they are slow runners, woodchucks are alert and can quickly move into their dens when alarmed.

Woodchucks hibernate during the winter, becoming active in late February and March.

Mating occurs in March and a single litter of two to four young is produced annually. The young are weaned by late June or early July, and soon thereafter strike out on their own--usually occupying old, abandoned dens. Woodchucks are active during the daylight hours, and their range is approximately 50 to 100 feet from their dens. The den and burrows are extensive and may be used

for several years. Burrows may be as deep as 5 feet and up to 60 feet in length. Woodchucks seem to prefer to construct burrows on or near farm land where crops grow. They frequently may be found in woodlands or in abandoned farm lands and occasionally in urban areas where the combination of food and cover provides a satisfactory habitat.

Woodchucks are voracious feeders, feeding actively on succulent, green vegetation in early morning and evening periods during summer. Woodchucks feed primarily on vegetables, trees, grasses and legumes. Their favorite foods include various beans, cole crops, carrot tops, clover, squash and peas.

There are several methods that can be used to control woodchucks:

- Wire fencing will help keep woodchucks out of nursery areas and small gardens. Bury the lower edge 10 to 12 inches deep in the soil to prevent burrowing under the fence. Because woodchucks are good climbers, the fence should be three to four feet high.

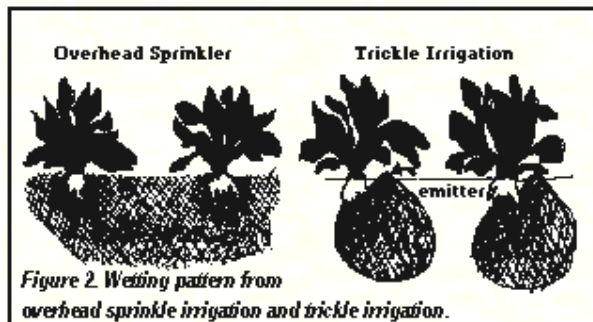
- Live trapping is an effective method of reducing woodchuck numbers in a small area. Live traps may be of the homemade type or wire mesh commercial variety. The opening for these traps should be eight inches square or larger. Live traps can be effectively baited with apples, carrots, green beans, lettuce or other green vegetables, preferably of the type the woodchucks are already eating. Traps should be placed at the burrow opening at dusk when the animal is in the den, in rows where damage is occurring or other areas the woodchucks frequently travel. Place guide logs on either side of the path between the burrow opening and the trap to funnel the woodchucks toward the trap. Check the trap twice daily. Disposal of trapped woodchucks presents a problem. Drowning is an option, but woodchucks can apparently live for at least 15 minutes underwater.

- Commercial gas cartridges filled with slow-burning chemicals are available at garden supply stores. These are ignited and placed in the burrows and the entrances are sealed.

Woodchuck burrows are distinguished by a large mound of excavated earth at the main entrance; there are always two or more entrances to each burrow system. As the cartridges burn, carbon monoxide and sulfur dioxide fill the tunnels and kill the woodchuck. Before using these cartridges,

read and follow all instructions and cautions on the label; gas cartridges can pose a fire and health risk.

Source: Gauthier, N. L., 1999. Woodchucks, URI GreenShare, University of Rhode Island Landscape Horticulture Program, <http://www.uri.edu/ce/factsheets/sheets/woodchucks.html>



### Watering My Garden:

We are just coming out of a very wet spring and especially wet June, why worry about irrigating your garden? Our plants need an inch and a half of water each week. Yes we have exceeded that in our past weeks but the dry summer is coming. How can we manage the flower and vegetable garden to minimize moisture loss and irrigation needs?

Mulch! If you look back at the March 2006 issue of Piscataquis Gardening I covered a variety of mulches that can be used in the flower and vegetable garden. To be most effective try to cover the soil before it dries out to get the most out of your mulch. But mulch can only help so much. What happens when your plants start to wilt due to lack of water. Time to think about getting water to the garden.

Are you planning to carry water in a two gallon watering can remember that a 10' by 10' garden needs at least 60 gallons of water a week to equal an inch of rain. So that means 30 trips to the garden with that watering can. Or you could use a garden hose if your garden is close to your water source. But don't just stand there and sprinkle a little water over your garden spot. It will only settle the dust and not contribute to the moisture needs of the crop.

You need to water so it soaks into the soil 5 to 6 inches. The best way is to set up a sprinkler. Set a rain gauge out underneath the sprinkler so you can tell how much water you have added to your garden. Start with 10 to 15 minutes at one place, check your rain gauge and if you have 1 inch of water, you can move your sprinkler to a new location.

Another choice is to use trickle irrigation

with either soaker hose or water emitters to let the water slowly seep out and soak into the ground. To check on how much water has been applied you need to dig down near the plant to be sure the water has soaked into the soil down to the roots.

With trickle irrigation you can save a lot of water since you only apply water to the area that the plants are growing, not the walk ways in a flower or vegetable garden. Also, there is less weeding since the weeds don't grow as well without water. Plus since the leaves are not moistened by overhead water the chance for leaf disease is less.

You can put your trickle irrigation under your plastic or organic mulch and get the benefit of both systems.

Source: Drinkwater, W.O. and H.E. Carpenter, *Trickle Irrigation for Home Gardens*, Rutgers University, Reviewed 4/03 by [Tom Kowalsick](http://counties.cce.cornell.edu/suffolk/grownet/home-gardening-general/trickle.html), Extension Educator - Horticulture, CCE - Suffolk County, <http://counties.cce.cornell.edu/suffolk/grownet/home-gardening-general/trickle.html>



### Growing Highbush Blueberries in Piscataquis County?

Blueberries are native to North America, and the delicious fruit has been harvested in the wild for centuries. In fact Maine is home to the highest harvest of wild blueberries in the nation. However, cultivating and growing blueberry plants in gardens and on farms is a relatively recent occurrence, since breeding and propagation of blueberry plants did not begin until early in the 20th century.

Highbush blueberries belong to the same family of plants as cranberries, rhododendrons and azaleas. They have limited adaptation to the cold winter temperatures of northern New England, but may grow satisfactorily on warmer,

## University of Minnesota, half-high blueberry cultivars

(note: yields are collected from zone 3b, reduce up to 50% for zone 3a)

cultivar	plant characteristics	fruit yield	fruit characteristics
Northblue	20-40 inches tall 30-60 inches wide	3-12 lb./plant	Large, dark blue, firm berries; good fresh flavor; superior processed flavor.
Northsky	20-40 inches wide 10-30 inches tall	1-5 lb./plant	Medium, sky-blue berries; sweet, mild, aromatic fresh flavor; superior processed flavor. Ripens with 'Northblue.' Yield and berry size benefit from cross-pollination.
Northcountry	15-40 inches tall 30-60 inches wide	2-7 lb./plant	Medium, sky-blue berries; sweet fresh flavor similar to wild lowbush blueberries; ripens 5 days earlier than 'Northblue.' Yield and berry size benefit from cross-pollination.
St. Cloud	30-50 inches tall 40-60 inches wide	3-9 lb./plant	Medium, dark blue, firm berries; sweet flavor, crisp texture; good storage capability; ripens 5 days earlier than 'Northblue.' Requires second cultivar for pollination.
Polaris	20-50 inches tall 30-60 inches wide	3-10 lb./plant	Medium-large berries; very firm and very crisp texture; intense aromatic flavor; excellent storage capability; ripens 7 days earlier than 'Northblue.' Requires second cultivar for pollination.
Chippewa	20-50 inches tall 30-60 inches wide	3-12 lb./plant	Medium-large berries; sky-blue color; sweet flavor; firm fruit; ripens with 'Northblue.' Yield and berry size benefit from cross pollination.

protected sites where the winter temperatures do not fall below -25 degrees F. In the past couple of winters we have not been as cold as usual so a lot of gardeners are now contemplating planting highbush blueberries.

Because of Maine's cold winter temperatures and short growing season, select blueberry varieties that are described as very hardy and that ripen early or midseason. Dave Handley, Extension Small Fruit and Vegetable Specialist recommends Patriot, Northland, Bluecrop, Blueray, Meader and Jersey. It is usually best to plant more than one variety. Although most blueberries are self-fruitful, cross-pollination among different varieties may improve fruit set and fruit size. In addition, using two or more varieties that ripen at different times will lengthen the harvest season.

Here is a chart of varieties that have been tested in Minnesota showing several other varieties that might be considered. Most of Piscataquis is zone 4b (warmer than 3b). But

remember the taste will not compare to the native lowbush wild blueberry.

As an aside, there are folks that are starting to propagate Maine lowbush wild blueberries for the home garden for fruit and landscape value.

### Disease of the Month: Early Blight Of Tomato

Early blight of tomato, caused by the

fungus *Alternaria solani*, is perhaps the most common foliar disease of tomatoes in the Northeast and is also common on potatoes. This disease causes direct losses by the infection of fruits and indirect losses by reducing plant vigor. Fruit from defoliated plants are also subject to sunscald.

Early blight produces a wide range of symptoms at all stages of plant growth. It can cause damping-off, collar rot, stem cankers, leaf blight, and fruit rot. The classic symptoms occur on the leaves where circular lesions up to 1/2" in diameter are produced. Within these lesions dark, concentric circles can be seen. The leaf blight phase usually begins on the lower, older leaves and progresses up the plant. Infected leaves eventually wither, die, and fall from the plant.

The fungus spends the winter in infected plant debris in or on the soil where it can survive at least one and perhaps several years. It can also be seed borne. New spores are produced the following season. The spores are transported by water, wind, insects, other animals including man, and machinery. Once the initial infections have occurred, they become the most important source of new spore production and are responsible for rapid disease spread.

*Control recommendations include*

- 1) Use only clean seed saved from disease-free plants.
- 2) Remove and destroy crop residue at the end of the season. Where this is not practical, plow residue into the soil to promote breakdown by soil microorganisms and to physically remove the spore source from the soil surface.
- 3) Practice crop rotation to non-susceptible crops (3 years). Be sure to control volunteers and susceptible weeds.
- 4) Promote good air circulation by proper spacing of plants.
- 5) Orient rows in the direction of prevailing winds, avoid shaded areas, and avoid wind barriers.
- 6) Irrigate early in the day to promote rapid drying of foliage.
- 7) Healthy plants with adequate nutrition are less susceptible to the disease.
- 8) Minimize plant injury and the spread of spores by controlling insect feeding.
- 9) Hand picking diseased foliage may slow the rate of disease spread but should not be relied on for control. Do not work in a wet garden.
- 10) Use resistant or tolerant varieties.

11) The preventative fungicides such as chlorothalonil (Bravo or Daconil), copper products (Bordeaux Mixture, Kocide) or potassium bicarbonate (Armcarb 100, Firststep) can be used on a regular basis according to their label directions to prevent the disease.

Where trade names are used, no discrimination is intended and no endorsement by Cooperative Extension is implied.

Source: Watt, B.; *Early Blight Of Tomato, UMCE Pest Management Fact Sheet, 2004*

Photo: University of Connecticut Integrated Pest Management, <http://www.hort.uconn.edu/ipm/veg/htms/todispic.htm>

### **Barley Straw as Algistatic Survey**

Felicity Francis, a graduate student at Hood College in Frederick, Maryland has a request for pond owners. To complete her Master's degree in Environmental Biology, she is working on a project to gauge the effectiveness of barley straw as an algistatic agent in aquatic environments. (limits the growth of algae in ponds)

She is trying to locate pond owners who have used barley straw and would be willing to complete a survey to gauge the success of this method in controlling algae. The survey can be sent electronically or via the postal service. If you have a pond and have used barley straw to help manage algae please contact: Felicity Francis, 2 Hill Circle, Round Hill, VA 20141, Home phone: 540-338-4828, email: [felicityf@erols.com](mailto:felicityf@erols.com) or [ffrancis@loudoun.k12.va.us](mailto:ffrancis@loudoun.k12.va.us).

### **June /July Garden Activities:**

- Finish planting your vegetable garden
  - Watch for insect and disease problems with all crops
  - Early lettuce might be ready for harvest
  - Towards the end of June you may need to side dress sweet corn with extra nitrogen
  - Finish mulching your vegetable and flower gardens to conserve on moisture and prevent weed growth
  - Plan to participate in garden tours in the area
  - Sit back and enjoy your flower garden
- Mow high for season. Long grass blades shade the ground and reduce soil water loss. After strawberry harvest is complete, be sure to renovate the bed by mowing all the tops off,

fertilizing and rototilling to narrow the rows. Deadhead perennials as they finish blooming. Harvest raspberries when fully colored and easily separated from stem. After harvest is complete, prune out the fruiting canes to make room for new growth.

Remove faded blossoms from annual and perennial flowers to prevent seed formation. Cage or stake tomatoes if you have not done so. Mulch garden beds to preserve soil moisture.

Wood chips, cocoa bean or other mulches is excellent for perennial beds. Vegetable gardens may be mulched with herbicide-free grass clippings, compost, straw or other easily-degradable mulch materials

- Check yourself and your pets for tick after being outside in the garden or walking in the woods

### Featured Extension Publications:

The following Gardening Extension Publications are available at the Extension office nearest you. Many publications are also available online for free download at <http://extensionpubs.umext.maine.edu/>. For sale publications can be ordered directly from our publications store at the same web site.

[The Best Plants for New Hampshire Gardens and Landscapes: How to Choose Annuals, Perennials, Small Trees & Shrubs to Thrive in Your Garden](#), Cathy Neal, Margaret Hagen, and Leslie van Berkum. This fresh publication uses habitat gardening to help gardeners and landscapers choose and care for plants for the New Hampshire environment. Our UMaine Extension horticulture specialist finds it ideal for use in Maine as well. The 96-page paperback book includes lively, easy-to-read text, useful charts, pen and ink illustrations, black & white photos of selected plants, sections on plant selection and care, specialty plant lists, and an index for easy referencing. 2003. **\$12.95**

[Understanding Ruby-Throated Hummingbirds and Enhancing Their Habitat in Maine](#), Habitats Series, Did you know that rubythroats beat their wings between 50 and 70 times per second? This publication discusses rubythroat biology and seasonal cycles, breeding habitats, courtship and nesting, food sources, and specific recommendations on enhancing rubythroat habitat in your yard. Includes a list of hummingbird nectar plants for Maine, as well as important information about nectar feeder maintenance. 14 pages with illustrations, 2002. Series includes items 7126, 7131-7133, 7137, 7145, 7148, 7150-7153; see 7146 for entire series. Free online version: Item #7152, From UMaine Extension, **\$1.60**

[Growing Highbush Blueberries](#), This 4-page introduction to highbush blueberry production covers site selection and preparation, planting, care, pest management, pruning, and harvesting, and suggests varieties suited to northern New England. 2001. Free online version available: Item #2253, From UMaine Extension, **\$0.75**

[Early Blight of Tomato](#), Pest Management Fact Sheet, 2-page fact sheet describing conditions for early blight, symptoms and control. 2004. Free online version available: Item #5087, From UMaine Extension, **\$0.50**.

### Calendar:

June 16<sup>th</sup>, **Extension Office Open House**, 1 pm to 3 pm, come and meet our new Extension Educator **Barbara Baker**. Barbara will be working with the 4-H Youth Development program in both Piscataquis and Penobscot Counties. She will also be working state wide in our Youth in Governance program. For more information call 564-3301. Hope to see you there!

July 30<sup>th</sup>, **Small Farm Field Day**, at the Common Ground Educational Center in Unity. This day features talks and workshops by local and regional experts focused on practical aspects of small-scale agriculture and homesteading. Directions to the workshop are available on the MOFGA website at <http://www.mofga.org>

August 19<sup>th</sup> **Garden Day** at Rogers Farm, for more information contact the Penobscot County Extension Office at 307 Maine Ave., Bangor, ME 04401-4331, Phone: (207) 942-7396 or (800) 287-1485 (in Maine), E-mail: [cespen@umext.maine.edu](mailto:cespen@umext.maine.edu)

**Agricultural Fair** Season is coming up! You can go online at <http://maineagriculturalairs.com> and find out more information about your favorite fair.

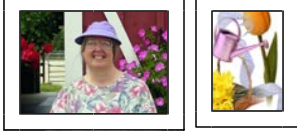
July 1 to 4	- Houlton Fair
July 28 to August 5	- Northern Maine Fair
July 28 to August 6	- Bangor State Fair
August 10 to 19	- Skowhegan Fair
August 24 to 27	- Piscataquis Valley Fair
September 22 to 24	- Common Ground Fair
October 1 to 8	- Fryeburg Fair





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