

## **Vermont Vegetable and Berry News –November 25, 2008**

Compiled by Vern Grubinger, University of Vermont Extension

(802) 257-7967 ext.13, [vernon.grubinger@uvm.edu](mailto:vernon.grubinger@uvm.edu)

[www.uvm.edu/vtvegandberry](http://www.uvm.edu/vtvegandberry)

### **MANAGING LARGE CRABGRASS** (adapted from Chuck Mohler, Cornell University)

Large crabgrass is a very common weed on Vermont vegetable farms. Here is some information on management strategies for you to consider next year.

The good news about crabgrass is that they tiny, fragile seedlings of large crabgrass are easily killed by tine weeding or rotary hoeing just before or shortly after they emerge. The bad news is that large crabgrass is one of the few annual weeds that not only reproduces from seed but also vegetatively. The outer stems of the plant lie on the ground and tend to form roots where the nodes come in contact with the soil. Consequently, single plants more than six feet in diameter have been observed. Crabgrass flowers in response to short day length; once a plant begins to flower, it will continue to flower and set seed until frost. Research found that well-spaced plants emerging in May in Connecticut produced an average of 145,000 seeds per plant.

Once crabgrass seedlings are large enough to have developed roots at the base of the shoot, in addition to the primary root from the seed, they are hard to kill. In crops that tolerate hilling-up, try to do so before the first true leaf elongates since an incompletely buried plant can recover. When cultivating to kill larger plants, set up cultivators to cut flat and shallow so that the shoots quickly dry on the soil surface. Burying the plants is less effective because complete burial of larger plants is nearly impossible, and large crabgrass re-roots exceptionally well.

Frequent light hoeing or cultivation to kill small seedlings, especially in the late spring and early summer when emergence is greatest, reduces the population to a manageable level for the year. Rotations that include early, short-season crops tend to manage the crabgrass population by allowing many seedlings to emerge shortly before harvest; then subsequent tillage for the next crop or cover crop destroys the crabgrass plants before they can set seeds. Plants approaching maturity should be chopped up and completely buried. Inept cultivation or hoeing of large plants may simply encourage the formation of new roots at the stem nodes. Large plants with 'unfolded' seed heads should be removed and destroyed if possible since seeds can mature on dead plants.

Since most large crabgrass seeds do not persist long in the soil, rotation into a sod crop for a few years greatly decreases the seed bank, provided seed production is prevented during establishment of the sod. Subsequent tillage for the next crop or cover crop then destroys the young crabgrass before they can set seeds. A cultivated fallow period during the first 4 to 6 weeks of warm weather can effectively decrease severe infestations since most seeds will germinate if provided with warm, moist conditions.

Leaving a green manure cover crop in place until shortly before planting a summer crop is not very effective for crabgrass control since the cover crop will keep the soil cool, thereby enforcing seed dormancy. However, allowing a few weeks between incorporation of the cover crop and final seed bed preparation may help kill many recently-emerged seedlings. This lag can be extended into a short, repeatedly cultivated, summer fallow to handle severe infestations. Cultivate shallowly whenever new seedlings appear. Note that one study found green manure cover crops in the mustard family incorporated in the spring to provide 48% to 79% control of large crabgrass at four weeks after transplanting bell peppers in South Carolina.

Straw mulch applied in the spring keeps the soil too cool for crabgrass germination and is highly effective at suppression. The same mulch material applied after the soil warms will be relatively ineffective because large crabgrass seedlings can worm up through at least 3 inches of straw.

### **WINTER MULCH FOR STRAWBERRIES**

(adapted from Sonia Schloemann, University of Massachusetts)

Without mulch, strawberry crowns can suffer damage at temperatures below 12°F and unprotected strawberry plants can suffer damage from drying winter winds. Mulch can protect strawberries from cold by providing insulation, and by providing a barrier against drying winds. Mulches will also protect plants from injury caused by soil heaving, which results from freezing/thawing cycles during the winter. Plants on raised beds are more vulnerable to cold and desiccation injury than plants in level plantings, especially in locations that are exposed to strong winter winds. Annual production systems, such as fall planted plasticulture, may also increase vulnerability if they utilize less hardy cultivars.

A good time apply mulch is after three consecutive days with a soil temperature of 40°F or below. This soil temperature usually occurs after multiple frosts, and when the plants have slowed growth in response to cooler temperatures. It is best to apply mulch before the soil freezes solid. So, in New England, mulches are usually applied in late November.

The traditional mulching material for strawberries in New England is straw. Straws from wheat, rye, oats, or Sudan grass work well. Straws coarser than Sudan grass are not recommended. Straw should be clean, free from weed seed, and contains a minimum of grain seed. A traditional, level matted row planting will require 2.5 to 3 tons of straw per acre for a 2 to 3 inch deep mulch, or about 300 small bales of average weight. Raised bed plantings and sites with strong wind may require twice this amount for adequate coverage.

In the spring, when plants begin to show growth (new green tissue) under the winter mulch, the mulch should be raked off the rows to allow sunlight to penetrate and reach the foliage. Delaying removal will delay plant growth and flowering and may reduce yield. Mulch can be raked off by hand with ordinary yard rakes in smaller plantings. In larger plantings, various mechanical tools are available ranging from modified hay rakes and tedders to equipment specifically designed for the purpose.

Floating row covers are useful for winter protection of strawberry plantings. Only the heavier weights are recommended for winter protection, such as 1.25 oz/yd<sup>2</sup> (42 g/m<sup>2</sup>). With proper care, this heavier fabric should last 3 to 4 seasons. Floating row covers must be securely anchored with posts, rocks, soil, or tube sand along the edges and where 2 covers overlap. Row covers are best applied on still days. Be sure to line up sufficient labor to place the row cover. If possible, use wider widths for more efficient application.

## **AN INTRODUCTION TO FARM QUICKBOOKS**

Dec. 2<sup>nd</sup>: Champlain Valley Expo-Blue Ribbon Pavilion and Dec 5<sup>th</sup>: Middlebury Extension office. 9:00 AM – 3:00 PM. Topics covered: Setup: What information you need to start Quickbooks for the first time. From the start date, to the balance sheet to accounting method. The home page: Overall look. Icons vs. tool bar vs. drop downs. Managing the various lists: setting up Vendors, Customers, editing the chart of accounts. QB setup during the setup process: Tailoring to your specific business. Using the register &/or using forms to enter checks and deposits. Using Accounts Receivable, receiving payments and making deposits. Using Accounts Payable, paying bills and printing checks. Bank Reconciliation, discrepancies- Things not to do. Reports: Which ones? Understanding them, identifying problems. For more information contact Glenn Rogers, University of Vermont Extension, at 1-800-639-2130 or [glenn.rogers@uvm.edu](mailto:glenn.rogers@uvm.edu).