



VEGETABLE IPM MESSAGE

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CROP CONDITIONS

Rainstorms over the weekend and early this week provided 1-2 inches of water to fields throughout the state. There were even puddles! It was a welcome change especially since many grower face smaller work crews at a time when harvest work is heavy. Pumpkin (especially sugar pumpkins) and winter squash harvests are underway. Fall cover crops and fall greens are germinating well.

FALL COVER CROPS

*As crops are harvested you want to be thinking about cover crops that will be seeded on your fields. Here is some information about some of the more common cover crop choices for Massachusetts. There's a more complete list in the **New England Vegetable Management Guide** (pages 16 and 17).*

Non-Legumes: Winter rye is easily the most common cover crop used by growers in Massachusetts, and for good reason. It is inexpensive, easy to get and establish, and can be seeded fairly late into the fall and still take. It consistently overwinters here and will continue to grow in the spring producing lots of organic matter. Some growers find it difficult to incorporate in the spring if it is left to grow into May. Seeding rate: 90–120 lbs/acre.

Oats can be seeded in the fall and will come up quickly, similar to winter rye. Unlike winter rye, oats will winterkill here in Massachusetts and will not regrow in the spring. For this reason some growers prefer it over winter rye since it is easier to manage in the spring. It might have to be lightly incorporated into the soil in order to germinate. Enough

growth is required in the fall to give adequate cover through the winter and early spring. Try to seed by the first week of September. Growers along the coast can plant later. Make sure the oats have not been cooked (used as an animal feed). Seeding rate: 100 lbs/acre.

Ryegrass is used by some growers because of its thick root system that is thought to mop up more nitrogen than winter rye or oat. There are two types: annual and perennial. Despite their names, the annual ryegrass may overwinter and the perennial ryegrass may winterkill depending on when you seed them. If you have not seeded them before and would like to evaluate them, I would recommend that you seed a little of each in order to see their growth habits. I have only used these cover crops in the early spring. The seed is small and light, so specialized equipment will be needed if seeding a large area. Seeding rate: 30–40 lbs/acre.

Legumes: Clovers are used by some growers as a nitrogen source. There are several types available. Like ryegrass, I have only used clovers as an early spring cover crop. A clover will have approximately 2.5% nitrogen whereas hairy vetch (see below) averages around 3.5% (this compares to winter rye that is usually below 1%). Clovers are a very small-seeded cover crop that needs specialized equipment to establish. They can be seeded by hand in a small area, but if you want to do several acres, you will need specialized equipment. Seeding rate: 10–20 lbs/acre.

Hairy Vetch is an excellent cover crop for Massachusetts. It can be seeded up to mid September and will survive the winter. Growers near the coast or on the cape and islands can seed vetch up till October or even later. When left to grow

long enough in the spring, hairy vetch has supplied over 100 lbs/acre of nitrogen.

It is very important that the appropriate rhizobia species is used for hairy vetch (the rhizobia for hairy vetch will work for all vetches and peas). Without the rhizobia the vetch will not give the desired effects.

We have been recommending you mix the vetch with either winter rye or oat. There are several reasons for this:

1. Both oat and winter rye are very efficient in taking up nitrogen from the soil (remember, the vetch is getting most of its nitrogen from the atmosphere, so it does not need much from the soil). By taking up more nitrogen in the late summer and fall we are reducing the risk of contaminating surface or ground water and the nitrogen is recycled so that it can be used by next years cash crop.

2. The oat and rye can produce tremendous amounts of valuable organic matter if allowed to grow long enough.

3. Both of these cover crops will give better erosion control than vetch alone since they emerge and establish themselves more quickly than vetch. This is especially important when vetch is seeded after September 1.

We have been recommending 40 lbs/acre of oat or rye with 30-40 lbs/acre of hairy vetch. If you are using a grain drill then you can use seeding rates as low as 30 lbs/acre of vetch. If you are spinning the cover crop on and lightly disking it in then a rate of 35-40 lbs/acre is suggested.

Many growers prefer the use of oat rather than rye because of the tremendous growth of rye that occurs in the spring. This can be desirable if you are looking for increased organic matter in your soils, however some growers find the amount of biomass created by these two cover crops too much to handle. In addition, we have found that we get much more growth of the vetch in the spring when seeded with oat than when seeded with rye. The rye will compete with the vetch in the spring.

Contact Frank Mangan if you have any questions on these cover crops, or would like to discuss other cover crops at (978) 422-6374; fmangan@umext.umass.edu.

Frank Mangan, University of Massachusetts

2003 STEWARD OF THE LAND AWARD

Please help us spread the word about this award. We are due for a winner from the Northeast! American Farmland Trust is now accepting nominations for its 2003 Steward of the Land Award, honoring farmers and ranchers who positively contribute to the environment by protecting and conserving farmland. Each year, \$10,000 is presented to a farmer or rancher who demonstrates exceptional on-farm stewardship and actively promotes farmland protection policies at the community, regional and state levels.

There are three ways to nominate a farmer. You can request a nomination kit by: 1) Calling (202) 331-7300 ext. 3044; 2) E-mail Grace Chen, Award Coordinator at gchen@farmland.org with your name and complete mailing address; or 3) Download nomination materials at www.farmland.org/steward/index.htm. Information about past winners and the history of the award is also available at this address.

Nominations must be received by mail or fax at AFT's national office by 5:00 p.m. EST on November 1. AFT's Board of Directors will consider nominations, and the award will be presented in early 2003. For more information, contact Grace Chen, Award Coordinator.

The American Farmland Trust (AFT) is a private, nonprofit farmland conservation organization founded in 1980 to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment. Its action-oriented programs include public education, technical assistance in policy development and demonstration farmland protection projects. For more information, visit AFT's homepage at www.farmland.org. American Farmland Trust, 1200 18th Street, NW, Suite 800, Washington, DC 20036, (202) 331-7300 ext. 3044.

Kirsten Ferguson, Communications Coordinator, AFT

2003 SARE GRANTS

Farmer/Grower Grants: The goal of the Farmer/Grower grant program is to develop, refine, and demonstrate new sustainable techniques and to explore innovative ideas developed by farmers across the region. Information gained from these farm-based projects may be used to redirect research priorities.

This grant is for commercial and qualifying nonprofit growers with innovative proposals that explore a wide range of topics in sustainability. To apply, you must be a farmer in the Northeast SARE region. You need not be farming full time, but your operation should have an established crop or animal product that you sell on a regular basis. Nonprofit farms may apply, but the primary activity of the farm must be to produce and sell food under the kinds of economic constraints that affect commercial growers. Many community-supported farms qualify, but farms where the primary mission is educational normally do not.

Grants average about \$5,00 and are capped at \$10,000.

Partnership Grants: The Partnership Grant is for agricultural professionals who work directly with farmers—specifically Cooperative Extension, NRCS personnel, non-governmental organizations, and others operating in the farm community—who are interested in developing on-farm demonstration, research, or marketing projects related to sustainable agriculture. Sustainable agriculture is understood to be agriculture that is profitable, environmentally sound, and beneficial to the community.

The purpose of the Partnership Grant is to build knowledge farmers can use, to encourage the understanding and widespread use of sustainable techniques, and to strengthen partnerships among farmers, extension, non-governmental organizations, and NRCS personnel that support useful inquiries into how agriculture can be made more profitable through good stewardship.

Partnership projects can address a variety of topics, including the development of beneficial insect habitat, alternative crops or animals, practices that make use of biological cycles for improved soil, plant, and pest management, marketing, adding value, grazing, tool or technology development, agroforestry, farm management, and water quality. Proposals should be relevant to farming and sustainability issues in the northeast region, and should offer both research and outreach components (with at least one farmer) so that results will be available to the wider farm community. Grants are capped at \$10,000.

Both applications are online at the Northeast SARE website www.uvm.edu/~nesare, or can be requested in hard copy by calling (802) 656-0471.

SWEET CORN (AND PEPPER)

The number of trapping locations is declining, as some growers are finished with all their corn.

We will continue to scout and report captures through next week (September 12).

Corn earworm numbers declined but were still high enough that growers need to be on a **4 day schedule** (5 if daytime highs <80 F; however, they are predicting heat this weekend) in most of the state. The exception is that one location in the Southeast, Dighton, remained >90 moths/week. Make sure fresh silk gets covered as soon as it emerges.

European corn borer flight is going down but plenty are hatching out and crawling into ears through the sides and tips in unprotected corn. However, new hatch should begin to decline.

Fall armyworm flights are down at most sites. Make sure to clean up pretassel corn and then rely on CEW sprays to catch everything else during silk. A follow-up note on **sap beetles**: one grower reports good sap beetle control with Warrior.

Pepper growers: when to stop regular sprays for ECB? We use a **weekly catch of 20 moths or lower as a threshold for stopping pepper sprays**, in areas where growers face significant ECB in peppers. This threshold has worked well in years past. Most areas of the state have reached that level, except for the northern Connecticut River Valley in Massachusetts. Based on the ECB captures at South Deerfield, I would recommend one more insecticide application for processing and fresh market pepper growers in the Pioneer Valley.

CORN EARWORM THRESHOLDS

Moths/Night	Moths/Week	Spray Interval
0 - 0.2	0 - 1.4	No spray
0.2 - 0.5	1.4 - 3.5	6 days
0.5 - 1	3.5 - 7	5 days
1.0 - 13.0	7 - 91	4 days
Over 13	Over 91	3 days

Note: Spray intervals can be lengthened by one day if daily maximum temperatures were below 80° F for the previous 2-3 days.

Where trade names or commercial products are used, no company or product endorsement is implied or intended. Always read the label before using any pesticide. The label is the legal document for product use. Disregard any information in this newsletter if it is in conflict with the label.

Sweet Corn Trap Captures August 30 – September 5, 2002						
Town	Date	ECB Z1	ECB E2	TOTAL ECB	CEW	FAW
		Iowa	New York			
Conn. River Valley North to South						
South Deerfield	September 5	14	59	73	40	7
Sunderland	September 5	11	6	14	6	-
Hatfield	September 5	5	6	11	49	-
Hadley #1	September 5	25	4	29	-	-
Feeding Hills	September 4	5	0	5	34	0
East/Central MA, North to South						
Ipswich	September 5	10	0	10	22	2
Dracut	September 5	9	6	15	1	-
Still River	September 3	0	2	2	17	-
Concord	September 2	5	8	13	18	2
Leicester	September 3	1	0	1	12	1
Northbridge	September 3	10	3	13	12	5
Belchertown	September 4	3	11	14	16	13
Dighton	September 5	4	14	18	217	-
Rehoboth	September 4	19	38	57	24	-
Sharon	September 4	4	3	7	32	20
Abbreviations:						
ECB Z1: European corn borer Z (Iowa, I) strain.						
ECB E: European corn borer, E (New York, 2) strain.						
CEW: Corn earworm; FAW: fall armyworm.						

Vegetable IPM Newsletter, Ruth Hazzard, Editor and Stephanie DeGray, Assistant Editor. The Vegetable IPM Newsletter is published weekly from May to September 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 is R. Hazzard if none is cited.