



NEW HAMPSHIRE VEGETABLE, BERRY & TREE FRUIT NEWSLETTER

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OF POMES & STONES – OH THOSE WONDERFUL PEACHES! - BY BILL LORD, UNHCE FRUIT SPECIALIST (RETIRED)

What an incredible peach year! Every farm I visit points to peaches as a super bright spot this summer with crop size and quality high and consumer interest strong. Continual replanting is key to keep peaches a focal point of your marketing plan.

I like a spacing of 12 X 20 feet for new blocks on most soils. This does require attention to proper pruning and training every year, with special attention to containing tree height at the top of the list (and most of you know how much I enjoy helping peach trees fit the allotted space). Many trees I am seeing are just too tall. Harvest management is a bear. Fruits high in the tree are difficult to harvest when tree ripe without bruising, and peach trees break under the stress of climbing by U-Pick customers. Lastly, the shade these tall trees create really restricts color development – customers really like those red cheeks.

Site selection and preparation is critical. Don't let the lack of cold temperature extremes this past winter cloud the site selection process. We want the best site on the farm – land elevated above surrounding land, allowing cold air in winter and on frosty sites in the spring to flow to lower elevations; but we want to avoid windy sites. Southwest slopes offer the risk of *Southwest Injury* – trunk painting on the south and west sides of trunks can reduce this risk. Keep in mind that peaches are a high-risk crop – select sites with care.

Purchase several max/min thermometers and place them at the lower elevations of sites you are considering. This winter, on the coldest mornings, check those to see how the temperature compares to a check site such as a local radio station location that you have relied on for several years. If your chosen site is consistently a few degrees warmer than the check site, it may be suitable for planting. But don't forget the limits of the peach. Some hardier varieties can survive temperatures as low as – 12 to –14° F IF temperature change is gradual, not abrupt – but temperatures warmer than this may damage tender flower buds in some years. Check those thermometers on frosty mornings in spring as well.

If you are replanting an established but tired peach orchard, proper soil preparation is essential. When removing old trees, get as many of the roots as possible out of the soil. Use a rock rake if you have one to make the job easier, but get it done. Peach root debris in the soil will restrict new tree growth. Take care of soil drainage problems. If portions of the site do not drain well, contact NRCS for technical assistance in developing an appropriate mitigation plan. I consider using a subsoiler or chisel plow to crack compact soils absolutely essential.

The site should be planted to an aggressive cover crop next summer. Sudan grass is an excellent choice. Seed after the soil has warmed – May plantings often do not grow well. Japanese millet is another option. Both are annuals and should not be allowed to go to seed. Sudan grass in particular can grow very tall, 6 feet or more, so incorporation of crop residue can be difficult. Flail mow first to beat it down, then incorporate the residue into the soil. If land is limited, a cash crop such as sweet corn could be used. Be sure to grind the entire stalk into soil before seeding a fall cover crop. No matter which you choose, a fall cover crop needs to go in and it needs to go in early, by Sept 1 if at all possible. Spring oats is the fall cover I like best. It grows well into December before dying when temperatures sink. The plant debris will protect soil through tree planting in spring and may reduce spring weed seed germination as well.

Weeds, voles and borers are problems I am seeing in many orchards. We will discuss these as well as rootstocks, varieties, and cultural management in future issues.

FALL COVER CROPS

Now is the time to get those fall cover crops in the ground. Here is a quick review of the most common cover crop choices for our region. These comments were written by Frank Mangan, UMass Vegetable Specialist, and also apply to NH conditions.

WINTER RYE is easily the most common cover crop used in New England. 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. It can be 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 winter kill here 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 Sept. 1. Growers along the coast can plant later. Make sure the oats have not been cooked (for use as 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, I would recommend that you seed a little of each in order to see their growth habits. I have only used ryegrasses 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.

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% (for comparison, winter rye is usually below 1%). Clovers are very small seeded. Small areas can be seeded by hand, 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 New England. It can be seeded up to mid September and will survive the winter. Growers in warmer areas 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 to inoculate the vetch at planting time (the rhizobia for hairy vetch will work for all vetches and peas). Without the rhizobia, vetch will not give the desired effects.

We have been recommending mixing 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 soil (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 fall we are reducing the risk of contaminating surface or ground water and recycling the nitrogen 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 recommend 40 lbs/acre of oat or rye with 30-40 lbs/acre of vetch. If you use a grain drill then you can use seeding rates as low as 30 lbs/acre of vetch. Use 35-40 lbs if you are spinning the cover crop on and lightly disking it in.

Many growers prefer oat to winter 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 vetch plus rye 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.

Crop	Rate (lbs/acre)	Seed Before:
Winter rye	90-120	September 15
Oats	100	September 1
Annual or Perennial Ryegrass	30-40	<i>Spring sowing most common</i>
Clovers	10-20	<i>Spring sowing most common</i>
Hairy Vetch	30-40, <i>with</i> 40 lbs oat or rye	September 15

If you are in a colder area, you will benefit from earlier sowing dates than those mentioned above. In general, the earlier you can seed any of these crops, the more fall growth (and organic matter) you will get and the more effective the cover crop will be at taking up excess nitrogen or fixing additional nitrogen. Later seeding dates (possibly as late as the end of October) will not permit as much growth, but will probably still work to control soil erosion.

Adapted from an article in UMass Extension Notes, vol 17 no 17, by *Frank Mangan, UMass Dept. of Plant, Soil and Insect Science.*

2006 NEW ENGLAND GREENHOUSE CONFERENCE - BY SADIE PUGLISI, UNHCE EDUCATOR, MERRIMACK COUNTY

The New England Greenhouse Conference will be held November 1-3 at the DCU Center in Worcester, Massachusetts with a trade show on November 2nd and 3rd. Wednesday, November 1st, is a pre-conference day featuring in-depth workshops and short courses.

The third day of this year's conference will offer workshops of interest to vegetable growers and greenhouse growers looking to extend their season. Presentations will feature alternative crops including Greenhouse Tomatoes, Salad Greens and High Tunnel Production of Cut Flowers. If you've never been to the New England Greenhouse Conference before this is a great opportunity to see what it's all about! Highlights will include the following:



Vern Grubinger, Director of the Center for Sustainable Agriculture at the University of Vermont, will be speaking on the organic production of greenhouse crops, focusing on tomatoes. Vern will cover the requirements for organic greenhouse production and discuss the specifics of growing greenhouse tomatoes.

Eliot Coleman, author, and part owner and operator of Four Season Farm in Maine, will be speaking on the greenhouse production of salad and root crops using no heat! Eliot will share his production strategies on growing a variety of profitable crops over the winter months.

The theme of season extension continues with several presentations on cut flowers.

Mark Bridgen from Cornell University and **Ted Blomgren** from Windflower Farm in New York will cover cutting edge research plus a farmer's practical experience on using high tunnels for cut flower production.

Greg Berger from Springledge Farm in New Hampshire, will discuss how he successfully grows and markets his cut flowers at his farm stand and as a profitable "U-Pick" crop.

Susan Han from the University of Massachusetts will talk about harvesting and caring for cut flowers. Learn the whys and how to's of handling cut flowers for maximum longevity. This session is a must for anyone handling and selling cut flowers!

To receive the 2006 New England Greenhouse Conference Program or for more information, contact: Cindy Delaney, Show Coordinator at 1 Main Street, No. 36, Winooski, VT 05404 or 802-655-7769, or visit the web site www.negreenhouse.org.

FALL CHECKLIST FOR BRAMBLES & BLUEBERRIES

GENERAL: Blueberry, raspberry and blackberry plants should be encouraged to harden off for the winter. Hold off on any nitrogen fertilizers. Based on leaf tissue tests and soil tests, sulfur, lime or non-nitrogen containing fertilizers (e.g. SulPoMag or Epsom salts) can be added now. Apply before fall rains begin and before adding new mulch to the plants.

WEEDS: For all small fruit crops, now is a good time to do a weed survey and map of problem areas, so that you can use this information to develop an effective management strategy.

Highbush Blueberry

CHECK YOUR pH: Proper pH (4.5-4.8) is critical for blueberry nutrition. If the pH must be lowered, fall is the best time to start correction because it takes months for the pH to drop. If you plan to mulch, apply sulfur before you apply the mulch.

DISEASES: Weak plants can easily be detected this time of year because they tend to turn red earlier than healthy bushes. Diagnosis is key to solving the problem - Is the root system damaged? If so, is it due to root damage by voles or grubs? Have canes been damaged by crown borer (Dogwood borer) be the culprit? Are stunt or scorch diseases present?

VOLES: Fall is the best time to start controlling voles, which cause damage by feeding directly on the roots and by producing tunnels that expose roots to freeze-thaw cycles. Look for tunneling by pushing aside the mulch right around the drip line in the center of the row. If you detect tunnels in several places, you may have a vole problem. Control options include poisoned bait methods and trapping. Creating a vegetation-free habitat near the base of trees or bushes also helps.

Raspberry and Blackberry

PRUNING & IRRIGATION: Do not remove spent floricanes until later in the winter unless they are diseased. Fall bearing raspberries can still benefit from irrigation in dry weather to help maintain fruit size.

DISEASES: Fall bearing raspberries can suffer fruit rot problems due to increased moisture present late in the growing season (more frequent rain, longer dew retention, longer nights). The majority of fruit rot is *Botrytis cinerea*, gray mold. Frequent harvesting is ideal, but thinning canes in dense plantings also helps. Scout summer bearing brambles for powdery mildew and treat if necessary.

INSECTS: Now is the time to check plantings for crown borers. Adults look like large yellowjackets, but are actually moths. They lay eggs in the field in August and September. Scout the fields for crown borer damage by looking for wilting canes. Wilting can also indicate *Phytophthora* root rot, so dig up wilting plants and check the roots for brick red discoloration in the core of the roots (*Phytophthora*) or the presence of a crown borer larva in the crown. Rogue out infested crowns and eliminate any wild brambles near the planting, since they harbor this pest. Insecticides can be applied to canes in October and to crowns (in a drench application) in early spring. See the New England Small Fruit Pest Management Guide for details.

With thanks to the following sources: *Sonia Schloemann, UMass Extension* and *Gary Pavlis, Rutgers Cooperative Extension*.

UPCOMING MEETINGS AND EVENTS

Thurs Sep 14. **Vegetable and Tree Fruit Twilight Meeting**, UNH Woodman Research Farm, Durham, NH. Topics: winter squash and pumpkins, apple scab management, variety trials, cut flowers and mums. Contact: Suzanne Hebert, 603-862-3200. **AC, PAT credits.**

Thurs Sep 18. **Farming off the Grid: Solar Power on Small Farms**, Willow Pond Community Farm/CSA, Brentwood, NH. 3:30-5:30. Setup and operation of solar pumps for irrigation & washing, solar fencing, and more. Contact: Nada Haddad, 603-679-5616. **AC, O.**

Sun Sept 24. **CT – Brassica Twilight Series**. Upper Forty Farm, Cromwell, CT. 10am-1pm. Contact: Ruth Hazzard, 413-545-3696. **V, O.**

Wed Oct 25. **CT – Brassica Twilight Series**. Holcomb Farm CSA, West Granby, CT. 3-6pm. Contact: Ruth Hazzard, 413-545-3696. **V.**

Wed-Fri Nov. 1-3. **2006 New England Greenhouse Conference**. Worcester, MA. Detailed workshops on plant nutrition, alternative energy and growing vegetables in greenhouses, and more. Contact: Cindy Delaney, 802-655-7769 or visit www.negreenhouse.org. **F, V.**

Mondays Nov. 13, 20, and 27. **Weed I.D. and Management Basics – a Three-Part Series**. Goffstown, NH. Contact: George Hamilton, 603-641-6060. **F, V, PAT credits.**

Tues Nov. 14. **MA – Brassica Twilight Series**. Sidehill Farm, Ashfield, MA. 2-5pm. Contact: Ruth Hazzard, 413-545-3696. **V.**

Wed Nov. 29 **Tomato Grafting Demonstration and Roundtable Discussion**. Society for the Protection of NH Forests, Concord, NH. 1-3:30pm. \$25 registration fee per farm. Contact: Becky Grube, 603-862-3203. **V.**

Sat. Dec. 2 **New England Vegetable and Berry Meeting**. Portsmouth, NH. Contact: John Howell, 413-259-1203. **V, F, PAT credits.**

Meeting topics: F = flower, O = certified organic, SF = small fruit, TF = tree fruit, V = vegetable, AC = all crops, H = homeowner. PAT credits = pesticide applicator recertification credits available.

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