



NEW HAMPSHIRE VEGETABLE, BERRY & TREE FRUIT NEWSLETTER

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SECTION 18 LABEL FOR INDAR IS ISSUED

Blueberry growers take note – the EPA **has issued** a Section 18 (emergency exemption) label to permit the use of Indar (fenbuconazole) fungicide to control mummyberry disease in New Hampshire in 2006. This label is effective through August of 2006. Copies of the supplemental label are available at <http://www.greenbook.net/> (search for Indar). **As in 2005, we need to document all use of this chemical in New Hampshire.** Note that Orbit (propiconazole) is not included in this exemption, and use of Orbit on blueberries is not legal in New Hampshire. All commercial blueberry growers in NH should have received a notification letter and a reporting form in the mail. If you need these forms and did not receive them, you can get them on our website at <http://ceinfo.unh.edu/Agric/AGFVC.htm> or by contacting your local extension office.

FRUIT AND VEGETABLE VARIETY TRIALS BY UNIVERSITY OF MAINE COOPERATIVE EXTENSION

Submitted by Amy Ouellette, UNHCE Agricultural Resources Educator, Belknap County

University of Maine's David Handley, Mark Hutton and the field crew at Maine's Highmoor Farm have been busy over the past several summers evaluating varieties of strawberry, sweet corn, pumpkin and pepper.

Strawberry

In a two year variety trial, Brunswick, Sable and Mesabi gave the best yields. Brunswick is a dark berry with soft texture. Handley thought the flavor was good but be warned, Bill Lord, our retired Fruit Specialist was not as impressed. Sable is a good quality early berry. Mesabi is firm and glossy but hung onto the stem tightly, making it difficult to pick. Cabot, Eros and Ovation produced the largest fruit in the study. Cabot is a huge berry with rough texture. Eros is light in color, rough textured and can be mushy. Ovation is a very late berry with a fancy calyx.

Sweet Corn

Handley conducted a variety trial for sweet corn in 2005. Polka, Charisma and Montauk are synergistic se bicolor varieties (20-30% kernels supersweet, isolation not needed) that stood out with excellent eating quality. Of the synergistic sh2 bicolor varieties (all supersweet kernels, need isolation), Xtra Tender 270A and Mirai 308 bc tasted best.

Bell Peppers

Hutton and Handley evaluated sweet pepper varieties in a two-year study. Markets usually prefer large, blocky, thick-walled peppers. Of the varieties that fit these criteria, Lady Bell and Vivaldi ranked highest for yield. Ace and New Ace yielded best overall, but their thin walls are less attractive to consumers.

Pumpkin

Hutton and Handley evaluated medium and large pumpkin varieties in a one year study (2005). Hercules, Magic Lantern, Magician, Expert and Charisma PMR ranked best for quality. Hutton tends to rate pumpkins with dark orange color as best, therefore the pumpkins he singled out are fit that criteria. Hercules is an extra large pumpkin that grows on strong vines with PMT. Magic Lantern is a large pumpkin with a nice handle and PMT. Magician is medium sized and has both PMT and zucchini yellows mosaic virus tolerance. Expert is a Howden-type with a dark green handle growing on long vines. Charisma PMR is blocky and round with a nice handle.

Note: When choosing your pumpkin seed this year, keep in mind that many excellent varieties from UNH are now commercially available. Look for Neon (8-12 lb), Gold Standard (10-16 lb), Racer (10-16 lb), Gold Challenger (15-25 lb) and Gold Medal (20-45 lb) for jack 'o lantern types. Orange Smoothie (4-8 lb) has a nice smooth surface that is perfect for painting on. Pik-a-Pie (3-5 lb) is a very attractive pie pumpkin.

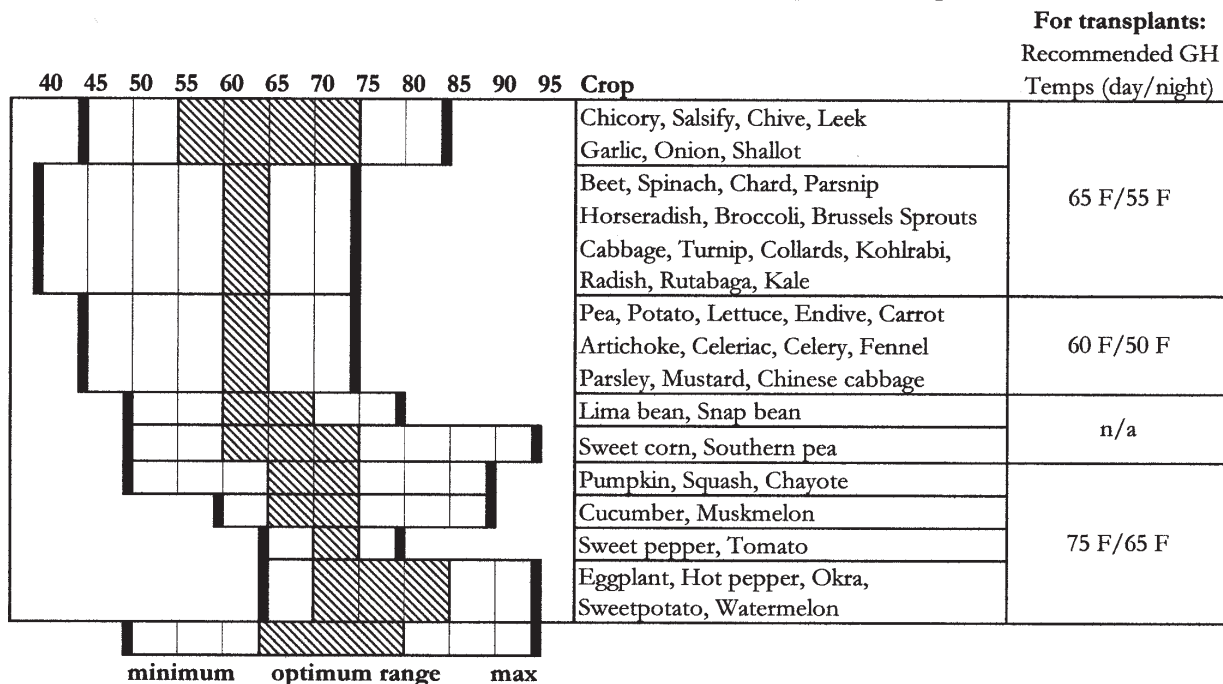
TEMPERATURES FOR OPTIMUM GROWTH OF TRANSPLANTS

High energy costs are causing many growers who produce their own transplants in a heated greenhouse to ask how low they can go, temperature-wise, without sacrificing growth of their transplants! For most plants, the rate of growth is directly related to the air and soil temperature. Every crop has a base temperature, below which it will not grow at all, a temperature range at which it will grow best, and a maximum temperature at which it will experience heat stress.

For cool season crops like those in the brassica or onion families, the base temperature is 40-45F, whereas it is much higher for warm season crops like cucumbers and melons (60F) or tomato and pepper (65F). If the greenhouse is cooler than the crop base temperature, the rate of growth will be very slow. If it is much cooler, some crops will experience chilling injury. Each grower will have to do their own calculations, but it may save money to delay planting by a week or two (when outdoor temperatures are also not as cold!) and set the thermostat slightly higher.

These temperature ranges should also be taken into consideration when putting out transplants. For melons and other warm season crops, waiting until the soil temperature reaches the optimum temperature for growth (which will occur earlier under black plastic) will minimize chilling injury and help insure that plants will take off and get established quickly.

Desirable Temperature Ranges (degrees F) for Vegetable Crops



Compiled from Knott's Handbook for Vegetable Growers, Grubinger 1999 (NRAES-104), and other sources.

HERBICIDE UPDATE from 2006-2007 New England Vegetable Management Guide

The 2006-2007 New England Vegetable Management Guide is available online at www.nevegetable.org, and is also available for purchase from Becky Grube or your local extension office. The new guide has many new features including new crops (basil, mesclun, sweetpotato, and okra), more information on irrigation, and new pest management products. Resistance group designations have also been added for insecticides, fungicides and herbicides to help growers rotate products with different modes of action to slow development of resistant pests. For certified organic growers, all materials approved for use in organic production are now identified as 'OMRI listed'.

Pest control options change quickly, so we have decided to include some of the relevant updates in this newsletter. This month we will include herbicides, and in future issues we'll cover fungicides and insecticides.

Resistance Management

For each herbicide, resistant group numbers are now provided to indicate similar modes of action. Growers should rotate herbicides so that chemicals with the same mode of action are not used in successive years. Herbicide resistance does not occur as quickly as fungicide or insecticide resistance, but it does occur (ex. Triazine-resistant lambsquarters). For each herbicide listed by trade name below, the common name and resistance group follows. Trade names are used for identification only; no produce endorsement is implied. If the label conflicts with any of following information, follow the label!

Weed control options for new crops

For basil, okra, and sweetpotato, plasticulture can be used alone or in combination with stale bed weed control. Stale bed options include *Roundup* (glyphosate, 9), *Scythe* (pelargonic acid, 27), and flaming. Additional options include:

Okra – Soil-applied pre-plant: *Treflan* (trifluralin, 3).

Sweetpotato – Soil-applied pre-plant: *Command ME* (clomazone, 13), *Dacthal* (DCPA, 3), and *Devrinol* (napropamide, 15). Postemergence grass control: *Poast* (sethoxydim, 1), *Select* (clethodim, 1).

New weed control options for Sweet Corn: Callisto and Aim

Callisto (mesotrione, 28) can be used to supplement reduced rates of atrazine (5) and a grass herbicide. Callisto gives both pre-emergence and post-emergence control of velvetleaf and triazine-resistant lambsquarters.

Preemergence. The recommended rate is 6-7.7 ounces per acre alone or 5-6 oz/acre with atrazine. When used with Callisto, atrazine rate can be reduced from 1.5 qt/acre to 0.5 to 1 pint/acre. **Precautions:** may injure corn in cold soils

Postemergence. Early Postemergence rate is 3 oz/acre alone or combined with 0.5 pint of atrazine

For best results, weeds should be less than 3 inches, and a non-ionic surfactant should be used at rate of 0.25%.

Aim (carfentrazone, 14) gives postemergence control of annual broadleaves, including pigweed, lambsquarters, eastern black nightshade, and vel-vetleaf. The recommended rate is 0.33 to 0.67 lb/acre. It should be mixed with a non-ionic surfactant at 1 qt/100 gal. **Precautions:** Apply when the corn is less than 8" high or use drops. Some speckling of corn foliage may occur.

New Herbicides/Label Changes

Stinger 3S (clopyralid, 4) is labeled for Beets, Turnips, and Spinach. This gives post-emergence control of many weeds (Galinsoga, Rag-weed, Pineappleweed, Clover, Vetch Canada Thistle, Goldenrod, Aster, Chrysanthemum).

Asparagus is no longer on label.

Sandea 75WSG (halosulfuron, 2) is labeled for post-emergence control in Beans and Sweet Corn. *Permit* (also halosulfuron, 2) will soon be discontinued in New England.

Command 3ME (clomazone, 13) replaces Command EC, is surface applied, and has low/no volatilization compared to the EX formulation. This is labeled for Beans, Cabbage, Cucumbers, Melons, Peas, Peppers, Squash, and Sweetpotato. **Not registered for pumpkin.**

Solicam 80DF (norflurazon, 12) is now labeled for asparagus after cutting season. It controls grasses, many broadleaves, and nutsedge.

Goal 2XL (oxyfluorfen, 14) now labeled for garlic. **Precautions:** do not use with a surfactant, do not tank mix, and 2-3 days of sunny weather should precede application to direct-seeded garlic.

Pesticide Safety: To keep yourself, your family and your employees safe, ALL GROWERS, regardless of conventional/organic should:

Read and follow all label directions.

Follow the Worker Protection Standards

Know and follow the PHI (pre-harvest interval) and REI (restricted entry interval).

Keep accurate records.

Use the proper Personal Protective Equipment (PPE).

Adapted from presentation by A. Richard Bonanno, UMass Extension Weed Specialist

UPCOMING MEETINGS AND EVENTS

Tue Apr 4, 11 & 18. **Adventures in Vegetable Production Short Course.** 7-9PM each Tuesday, Lancaster NH. Topics include cover crops (4/4), mulches (4/11) and transplants (4/18). For more info, contact Steve Turaj at (603)788-4961. **V.**

Mon Apr 17. **NH Giant Pumpkin Growers' Meeting.** Goffstown, NH. Identification and management of insect pests of pumpkins. For more info, contact George Hamilton at (603) 641-6060. **V.**

Sat. Apr. 22. **Apple Pruning Demonstration,** Weeks State Park. Lancaster, NH. Contact: Steve Turaj, 603-788-4961. **TF, H.**

Tue Jun 6. **Small Fruit Twilight Meeting,** Sunnycrest Farm, Londonderry, NH. Topics will include blueberry, raspberry, strawberry management and pest monitoring. For more info, contact Nada Haddad at (603)679-5616. **SF, V, TF, PAT credits.**

Tue Jun 13. **Fruit & Vegetable Twilight Meeting,** Ledgewood Farms, Moultonboro, NH. Topics will include: season extension using rowcovers and tunnels, early and low-spray production and marketing of strawberries and mixed vegetables. For more info, contact Tina Savage at (603)539-3331. **SF, V, PAT credits.**

Wed Jun 14. **Tree Fruit Twilight Meeting,** Surowiec Farm, Sanbornton, NH. The NH Fruit Growers' Association is sponsoring this commercial tree fruit growers' twilight meeting. UNH Cooperative Extension Specialists will be discussing pest management options and orchard management. For more info, contact Amy Ouellette at (603)527-5475. **TF, PAT credits.**

Fri Jun 30. **High Tunnel Workshop,** UNH Woodman Horticultural Research Farm, Durham, NH. For more info, contact Becky Grube at (603)862-3203. **SF, V.**

Wed July 12. **Tree Fruit Twilight Meeting,** Windy Ridge Orchard, North Haverhill, NH. The NH Fruit Growers' Association is sponsoring this commercial tree fruit growers' twilight meeting with University of Vermont. UVM and UNH Cooperative Extension Specialists will be discussing pest management options and orchard management. For more info, contact **contact Tom Buob at (603)787-6944. TF, PAT credits.**

Thu July 20. **Fruit & Vegetable Twilight Meeting,** Perkins Farm, Plymouth, NH. For more info, contact Tom Buob at (603)787-6944. **V, PAT credits.**

Wed Aug 9. **Tree Fruit Twilight Meeting,** UNH Woodman Horticultural Research Farm, Durham, NH. Topics will include assessing damage for crop insurance claims and cultural practices to reduce risks. For more info, contact George Hamilton at (603)641-6060. **TF.**

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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