



Vegetable Notes

For Vegetable Farmers in Massachusetts

Volume 13, Number 25
March

2003

This issue of **Vegetable Notes** highlights major label changes that have occurred in pest management products over the last year. There is also a report on a muskmelon variety trial that was conducted in Maine. I suggest placing this issue inside your current New England Vegetable Management Guide so that you can refer to these changes as you make your pest management and variety decisions for 2003. We are in the process of revising the Guide for 2004-2005. Always remember to read the current labels attached to the pesticide containers for complete inform, precautions, and directions. Best wishes for a great 2003 production and marketing season.

**DR. A. RICHARD BONANNO,
EDITOR**

Department of Plant & Soil Sciences,
University of Massachusetts, Amherst
Editor, Vegetable Notes, 3/03

IN THIS ISSUE...

2003 Vegetable & Berry Weed Management Update1

Fungicide Update for Vegetables 20034

Perimeter Trap Cropping Works & Project InvitationInsert

2002-2003 New England Vegetable Management Guide Available5

Insect Management Update for Veg. & Fruit Crops 2002-20036

Melon Variety Trials in Maine7

Exploring The Small Farm Dream: Is Staring an Agricultural Business Right for you?8

2003 VEGETABLE & BERRY WEED MANAGEMENT UPDATE

Dr. A. Richard Bonanno, Dept. of Plant & Soil Sciences, UMass Extension, Amherst

Bladex 4L(cyanazine) in Sweet Corn: The label, as well as the food tolerance for this product, have now expired as of December 31, 2002. This expiration also includes CyPro, a dry premix of atrazine and Bladex.

Sweet Corn Registrations: Prior writings have discussed two herbicides recently registered for sweet corn. These include Permit 75WSG (halosulfuron) and Prowl 3.3 EC (pendimethalin). In brief, Permit can be used for postemergence control of yellow nutsedge, velvetleaf, common ragweed, and many other problem weeds in sweet corn. Prowl, is applied to the soil surface after seeding and will provide good to excellent activity on triazine-resistant lambsquarters and velvetleaf. Each of these products has very specific instructions that must be followed to avoid crop injury. Both products were extensively used during 2002 and results were favorable.

2,4-D Formulation Change: Amine 4 is the new formulation of 2,4-D amine (salt) available for use in asparagus, sweet corn, and strawberry. Formula 40 will no longer be available. There are many ester and low-volatile ester formulations on the market for other uses of 2,4-D. Be certain to NEVER use ester or low-volatile ester formulation of 2,4-D on vegetable or fruit crops. Both ester and low-volatile ester formulations of 2,4-D can move from the target area after application under warm weather or low humidity conditions. They have the potential to damage crops far from the site of application and their movement is unpredictable.

Gramoxone (paraquat) Formulation Change: Gramoxone Max 3S has replaced Gramoxone Extra for all uses. Label rates are generally lower than the old formulation since Gramoxone Max contains more active ingredient per gallon. As with the old formulation, the use of a non-ionic surfactant is still required. With Gramoxone, always remember that better weed coverage through the use of more water per acre will result in better weed kill.

Dacthal 75WP (DCPA): Dacthal herbicide was back on the market during 2002 with all the previous labeling. The price of this product has more than doubled, however, rising to approximately \$14 per pound. Critical uses of this product are on newly transplanted strawberry and on direct-seeded onions. Because of the expense of this product, it will not be commonly used. Check the 2002-2003 New England Vegetable Management Guide for suggestions on possible replacements for Dacthal in other crops.

Strategy (ethalfluralin + clomazone): This label came out during 2002 and the product was extensively throughout New England. Strategy is a premix of Curbit (ethalfluralin) and Command (clomazone). It is intended for preemergence control of annual grasses and many broadleaf weeds in cucumber, melon, pumpkin, summer squash, winter squash, and watermelon. Broadleaf weeds controlled include, common lambsquarters, pigweed, common purslane, velvetleaf, common ragweed, and Pennsylvania smartweed. This product may be applied to the soil surface after direct seeding on bare ground. It may also be banded between plastic for both direct-seeded and transplanted crops. The formulation of Command contained in this product is the ME (microencapsulated) formulation which does not need to be incorporated. There are many precautions on the label including some replant precautions. For squash and pumpkin, this product will be the treatment of choice since it controls so many weed species. In cucumber and melon, however, Curbit tank-mixed with Alanap (naptalam) may still be a good option since most of the same weeds are controlled but the carryover concerns with clomazone are not present.

Sandea 75WSG (halosulfuron): The new label covers cucurbits, tomatoes, fruiting vegetables, asparagus, dry beans, and snap & lima beans. Sandea provides preemergence and postemergence control of many weeds; however, common lambsquarters is controlled best by a preemergence application while yellow nutsedge is controlled best by a postemergence application. Postemergence applications require the use a non-ionic surfactant at a rate of 1 quart per 100 gallons spray mix. Heavy rains following preemergence applications can lead to severe crop injury. There is the

potential for crop stunting and a slight maturity delay with the use of Sandea over the top of the crop. Growers should limit their use of Sandea initially to gain experience. Use the correct amount of product per acre. The most common use rate will be ½ ounce per acre. If the directions are not followed, the potential for severe crop injury does exist. A brief summary of use directions follows. Consult the label for complete directions. Consider using Sandea only if current management strategies are not working or as a supplement to existing management strategies to control certain problem weeds. This herbicide may carryover to the following year and can cause severe injury in crucifers, greens, spinach, beets, carrots, onions, and other crops. See the label for details.

Please read the label entirely regarding application directions and precautions. Accurate measurement and application is essential to minimize crop stunting and delay. A plastic measuring cup should be included with the herbicide container. Results during 2002 in Massachusetts on winter squash, cucumbers, and pumpkins were generally favorable although some severe injury did exist. Crop stunting was common but plants, in most cases, recovered with only a slight yield delay.

Cucumbers: Apply Sandea 75WSG preemergence after seeding and before crop emerges. Can also be applied when a seeded crop has 2-5 true leaves but the potential for crop stunting and yield delay should limit postemergence use to areas where weed pressure is high and yield reductions due to weeds would be unacceptable. Can also be used between plastic mulch with direct-seeded or transplanted cucumbers. In cucumbers, with a shorter life cycle than most other cucurbits, it might make sense to use this product preemergence alone or in addition to Strategy, or Curbit, or Alanap.

Pumpkins and Winter Squash: Apply Sandea 75WSG postemergence when the seeded crop has 2 to 5 true leaves. Crop injury and some delay may result. Can also be used preemergence after seeding; however excess rainfall or irrigation may cause unacceptable crop stunting. Can also be used between plastic mulch with direct-seeded or

transplanted winter squash and pumpkins. Perhaps the best fit for this product in winter squash and pumpkins is for postemergence control after preemergence use of another product (Curbit, Strategy, Prefar, or Command). Sandea will provide postemergence control of yellow nutsedge, redroot pigweed, velvetleaf, common ragweed, and many other broadleaf weeds.

Summer Squash, Muskmelons, Watermelons: Apply Sandea 75WSG between rows of plastic mulch avoiding contact with the plastic and crop. May also be used in row middles without plastic; any crop contact or use in the crop row will cause injury.

Tomato: Apply Sandea 75WSG either over the top of transplanted tomatoes at least 14 days after transplanting, under plastic mulch, or in row middles. The greatest potential for crop injury occurs when the crop is contacted.

Pepper, Eggplant, Tomatillo: Apply Sandea 75WSG between rows of plastic mulch avoiding contact with the plastic and crop. May also be used in row middles without plastic; any crop contact or use in the crop row will cause injury. If a shielded sprayer is not available, consider applying Sandea to the row middles after the plastic is down but before the crop is transplanted.

Dry Beans, Lima Beans, Snap Beans: Apply Sandea 75WSG preemergence after seeding but before crop emerges. Use lower rates on lighter soils.

Asparagus: Sandea 75WSG may be used during the cutting season after a clear cut or after final harvest. If ferns are present, direct the application to the base of the ferns to avoid injury.

Sinbar 80 WP (terbacil): The supplemental label for strawberries has been revised to allow use during the transplant year as well as on soils with between 0.5% and 2% organic matter. During the planting year, Sinbar may be

applied at 2 to 3 ounces per acre after transplanting but before new runners start to root. If strawberry plants have developed any new foliage prior to application, irrigation or rainfall (0.5 to 1 inch) is required to wash the Sinbar off the strawberry plants. In late summer or early fall, a second application may be applied at 2 to 6 ounces per acre to control winter annual weeds. This application must also be followed by 0.5 to 1 inch of irrigation or rainfall to wash the Sinbar off the plants. A third application of 2 to 4 ounces per acre can be applied, as usual, after the strawberry plants are dormant and just prior to mulching.

For soils with at least 2% organic matter, there is no maximum amount per application; however, no more than 8 ounces of Sinbar can be applied per year. For soils with between 1 and 2% organic matter, a maximum of 4 ounces of Sinbar can be applied at any one time with an annual maximum of 8 ounces per acre. For soils with between 0.5 and 1% organic matter, a maximum of 3 ounces of Sinbar can be applied at any one time with an annual maximum of 6 ounces per acre.

Following the establishment year, applications can only be made just after renovation and just prior to mulching. Applications are now allowed, however, on soils with between 0.5% and 2% organic matter using the same guidelines for rates as above. As always, be careful with Sinbar in strawberries, especially with potential overlap of sprayer passes which will double the rate and increase the potential for injury in some varieties. Please consult the new supplemental label for additional information, rates, precautions, etc.

FUNGICIDE UPDATE FOR VEGETABLES 2003

Robert L. Wick, Department of Microbiology, UMass, Amherst

STROBILURINS: These are a new class of fungicides that have a relatively broad spectrum of activity. Strobilurins would be a good choice for Early Blight. Late Blight and Powdery Mildew are on several of the labels. Some are excellent for Powdery Mildew. Resistance development is a problem. If you use strobilurins, make sure you rotate with chemicals outside of this class.

NEW FUNGICIDE PRODUCTS

CLASS	TRADE NAME	COMMON NAME	MAJOR USES
Strobilurin	Quadris	azoxystrobin	Many vegetables, wide range of pathogens
	Sovran	kresoxim-methyl	Tree fruits
	Flint	trifloxystrobin	Cucurbits (Powdery Mildew), Tomato (Late & Early Blight) tree fruits
	Cabrio	pyraclostrobin	Cucurbits, tomato, pepper, onions, roots, berries
	Headline	pyraclostrobin	Potato
Miscellaneous chemistry			
Phenylpyrroles	Maxim	fludioxonil	Vegetables, Leaf Spots/Blight, Root Rot
Sterol Inhibitors	Nova	myclobutanil	Vegetables, tree + small fruits, Powdery Mildew
	Tilt	propiconazole	Corn, celery
Acetimide	Curzate	cymoxanil	Potato, Late Blight
Carbamate	Previcur	propamocarb	Potato, Late Blight
Cinnamic Acid	Acrobat	dimethomorph	Potato, Late Blight
(A mixture)	Switch	cyprodinil + fludioxonil	Botrytis, onions and strawberries

NOVEL CHEMISTRY/BIOLOGICALS:

Actigard, common name: acibenzolar-s-methyl, is a synthetic analogue of salicylic acid (active ingredient of aspirin). It is not toxic to microorganisms but it causes an induction of resistance in the plant. Currently the label is very short but it does include Bacterial Spot and Speck of tomato, and Downy Mildew and White Rust of spinach. Possibly result in reduced yield in tomato and yellowing in spinach.

Contans WG, a fungal biological control agent, *Coniothyrium minitans*. For control of *Sclerotinia sclerotiorum* (Sclerotinia Blight).

Messenger, common name: harpin. Like Actigard, Messenger stimulates defense mechanisms in plants. Messenger is a protein produced by a bacterium. There are a number of vegetable crops on the label. In addition to disease control the product is supposed to increase yield.

Serenade is the trade name for a formulation of the bacterium *Bacillus subtilis*. Serenade has several vegetables on the label but has a short list of diseases (Powdery Mildew, Downy Mildew, Bacterial Spot of tomato).

Sonata, *Bacillus pumilus*, is produced by the same company that makes Serenade. Similar spectrum of activity.

T-22 is a formulated product of the fungus *Trichoderma harzianum*. *Trichoderma* is a common soil-inhabiting fungus that is relatively antagonistic toward plant pathogens. In addition to vegetables, it has herbs on the label. It is compatible with a number of common fungicides. T-22 is for the control of root diseases.

Fungicide Resistance Management in Vegetable Crops: (for both old and new materials) Fungicide selection is important.

Above all, you must know what pathogen you are trying to control. Next, you must select a material that will adequately control the pathogen. If you anticipate making several applications of a fungicide that may result in pathogen resistance, you should have

one or two appropriate fungicides to rotate with. The following table of fungicides tends to **result in resistance**. Avoid applying them twice in a row. You can rotate from class to class but do not rotate within the same class.

FUNGICIDES WITH HIGH RESISTANCE POTENTIAL

CLASS	TRADE NAME	COMMON NAME
Sterol Inhibitors	Folicur	tebuconazole
	Nova	myclobutanil
	Strike	triadimefon
	Tilt	propiconazole
Benzimidazoles	Benlate	benomyl
	Topsin-M	thiophanate methyl
Dicarboximides	Ronilan	vinclozolin
	Rovral	iprodione
Strobilurins	Flint	trifloxystrobin
	Quadris	azoxystrobin
	Sovran	kresoxim-methyl
	Cabrio	pyraclostrobin
	Headline	pyraclostrobin
Phenylamides	Ridomil Gold	mefenoxam*

*earlier formulations of Ridomil (metalaxyl) are chemically related to mefenoxam and should not be rotated with each other. However, combination products such as Ridomil/Bravo do not tend to result in resistance.

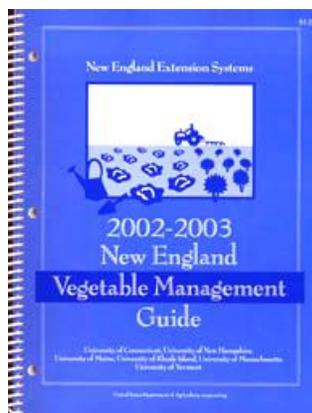
The following fungicides **do not tend to result in resistance**. They make good rotational partners for the above fungicides.

FUNGICIDES WITHOUT RESISTANCE POTENTIAL

CLASS	TRADE NAME	COMMON NAME
Dithiocarbamates	Maneb	maneb
	Mancozeb	mancozeb
	Penncozeb	mancozeb
Inorganics	Champ	copper hydroxide
	Basicop	basic copper sulfate
	Kocide	cupric hydroxide
Substituted benzenes	Bravo	chlorothalonil
	Daconil	chlorothalonil

2002-2003 NEW ENGLAND VEGETABLE MANAGEMENT GUIDE AVAILABLE

A comprehensive guide for commercial vegetable growers with information on current production and pest management techniques is available through our UMass Extension Bookstore. Each crop section in the Guide discusses cultural, weed, insect and disease management. An extensive introduction with on cultural practices, nutrient and soil management, and pesticide use now includes new sections on irrigation and on greenhouse transplant production. Recommendations include IPM and organic techniques. This manual is a compilation of input from the members of the New England Vegetable Working Group representing vegetable programs at the Universities of Maine, New Hampshire, Vermont, Connecticut, and Massachusetts. The Guide is designed to provide commercial growers with technical information on crop production, including cultural practices, nutrient and soil management, and pest management (weeds, diseases and insects).



For each crop, the Guide lists recommended cultural practices, fertilization, and information on management of important pests including pesticides, integrated pest management practices for monitoring, thresholds, organic recommendations and

alternatives to pesticides wherever possible. Because this is a publication written by professionals from throughout New England, that is rewritten every two years, it reflects the current collective knowledge for vegetable production for this region. Members of the New England Vegetable & Berry Growers Association receive one copy as part of membership.

To Order: call (413) 545-5538, or visit www.umass.edu/umext/bookstore. The Guide is Item #AG-VM04; cost is \$12.00 (plus shipping and handling, \$5 for the first item, \$1 for each additional item).

INSECT MANAGEMENT UPDATE FOR VEGETABLE & FRUIT CROPS 2002-2003

Celeste Welty, Extension Entomologist & Associate Professor OSU, Columbus

NEW PRODUCTS

Cruiser 5FS (thiamethoxam): Commercial seed treatment for sweet corn, for systemic control of corn flea beetle; made by Syngenta, registered October 2002.

Entrust 80WP (spinosad; same as A.I. as in SpinTor): New formulation that meets requirements of national organic program; made by Dow AgroSciences, registered August 2002.

Assail (acetamiprid), a neonicotinoid from Aventis/Bayer/Cerexagri: 70WP registered March 2002 for apple and pear to control aphids, leafminer, leafhoppers, codling moth, and psylla; and for tomato, pepper, eggplant, leafy veg., cole crops, collards, kale and mustard greens for aphid, whitefly, Colorado potato beetle control; 70WSP for grapes for leafhopper control (May 2002).

Acramite 50WS (bifenazate): For spider mite control on apple, pear, plum, peach, grape and strawberry; made by Uniroyal/Crompton, registered February 2002.

Courier Insect Growth Regulator 70WP (buprofezin): For use on lettuce, tomato, cucumber, melons, pumpkins and squash to control immature whiteflies; & **Applaud 70WP Insect growth Regulator** (buprofezin): For use on grapes to control leafhopper nymphs, also whiteflies, mealybugs, scales; made by Nichino America, registered January 2002.

REGISTRATION EXPANDED TO ADDITIONAL CROPS

Warrior T (lambda-cyhalothrin). Label expanded to include beans, peas, peppers, and eggplant.; expanded January 2003.

Esteem 35WP (pyriproxyfen): An insect growth regulator made by Valent, for scale and caterpillar control, new for stone fruit; registered November 2002.

Intrepid 2F (methoxyfenozide): An insect growth regulator made by Dow, for caterpillar control, new for grapes, sweet corn, pepper, tomato, eggplant, cole crops, greens, leaf lettuce & other leafy veg; registered on supplemental labels, September 2002. An improved version of Confirm (tebufenozide) registered since 1999 for cole crops, pepper, tomato and eggplant.

SpinTor 2SC (spinosad): New for brambles, grapes, radish, turnip, carrot and herbs (Sept. 2002); blueberries, beets (Jan. 2002); strawberries (Sept 2001); asparagus (July 2001); for control of caterpillars, dipteran leafminers, thrips, asparagus beetle; made by Dow.

Baythroid 2EC (cyfluthrin): A pyrethroid made by Bayer; new for cole crops, mustard greens, leaf and head lettuce, dry and southern peas; registered September 2002.

Avaunt 30DG (indoxacarb): For caterpillar control, new for Chinese cabbage (nappa), potato, eggplant; made by DuPont, registered July 2002.

Capture 2EC (bifenthrin): A pyrethroid made by FMC; new for caneberries (raspberries) for caterpillar and root weevil control; registered May 2002.

Fulfill 50WDG (pymetrozine): For aphid and whitefly control, new for cole crops, collards and other leafy brassica greens, leaf lettuce and other leafy vegetables, made by Syngenta, registered March 2002.

Mustang 1.5EW (zeta-cypermethrin): A pyrethroid made by FMC, for beetle and caterpillar control; new for tomato, pepper, eggplant, beans and peas; registered January 2002.

Surround (kaolin): New for bean, pea, potato, beet, radish, cole crops, collards, mustard greens, lettuce and other leafy vegetables; made by Englehard; registered March 2002. OMRI listed for organic farms.

Provado 1.6F & Admire 2F (imidacloprid): New for beans for aphid and whitefly control; made by Bayer; registered June 2001.

Agri-Mek 0.15 EC (abamectin): New for grapes for mite control; made by Syngenta, registered March 2001.

MODIFIED USES

Fulfill 50WDG (pymetrozine): Pre-harvest interval shortened from 14 days to 0 days for cucurbits, tomato, pepper and eggplant.

DISCONTINUED USES

Guthion (azinphosmethyl): Cancelled on beans, broccoli, cabbage, cauliflower, celery, cukes, eggplant, melons, onions, peppers, spinach and tomatoes (Sept 2002).

Actara (thiamethoxam): To be cancelled on tomato, eggplant, cucurbits in USA; & apple in OH.

Di-Syston 15G (disulfoton): Cancelled on tomato; still ok for cole crops, pepper and potato.

Monitor (methamidophos): Cancelled on cole crops, now use only on potato and fresh tomato.

DISCONTINUED PRODUCTS

Methoxychlor: Tolerance revoked October 2002; products suspended from manufacture and sale since June 2000.

MELON VARIETY TRIALS IN MAINE

This article was published in The University of Maine Cooperative Extension Vegetable & Berry News, dated January, 2003. Written by: David T. Handley, Vegetable & Small Fruit Specialist, Mark Hutton, Vegetable Specialist, Highmoor Farm, University of Maine Cooperative Extension.

Melons are a profitable crop for both the retail and wholesale markets. Although the trend in recent years has been away from melons having course netting and deep sutures to the Western type melon, consumers at local farm stands and farmer's markets continue to demand Eastern type melons. In this study, we grew several of the newer melon varieties to evaluate their performance in northern Maine.

Materials and Methods: Ten melon varieties were selected for evaluation in this trial (Table 1), including Athena, Earliqueen, Eclipse, Fastbreak, Minerva, RML 8793, Starfire, Starship, Starsweet and Sugar Bowl. Four plots of each variety were planted in a randomized design and the data from the plots combined for statistical analysis. Plants were started in the greenhouse on May 17, 2002 and transplanted on June 10, 2002 into raised beds covered with black plastic mulch. Each plot contained eight plants planted 18" apart within rows that were spaced six feet apart. Prior to planting, 10-10-10 was incorporated into the soil at a rate equal to 500 lb. per acre. Transplants received 500 ml of 16-32-16 transplanting solution just after planting. The rows were covered with floating row cover and remained covered until flowering began. No supplemental irrigation was provided. Harvest began on August 19, 2002 and continued on a 3 to 4 day schedule until September 12, 2002. Fruit were harvested at the half-slip stage, counted and weighed. Five fruit of each variety were randomly selected and evaluated for brix (sugar content), flesh thickness, flesh color, fruit length and width.

**Table 1
Melon Variety Trial, Highmoor Farm, Monmouth, Maine, 2002**

VARIETY	BRIX	FRUIT WEIGHT (LBS)	EARLY YIELD /PLOT ^Z (LBS)	TOTAL YIELD /PLOT (LBS)	FRUIT NUMBER/PLOT	COMMENTS
Athena	11.28	4.03	1.28	77.55	19.25	Slightly oblong, green tint to rind, medium netting, little suture, bland flavor
Earliqueen	11.46	2.79	36.01	60.17	21.50	Oval, deep suture, small cavity, good flavor
Eclipse	11.44	3.83	0.73	72.69	19.00	Variable netting, no suture, great interior color, poor flavor
Fastbreak	9.97	2.64	30.07	64.24	24.25	Round to oval, similar to Earliqueen, soft flesh, good flavor
Minerva	n.a.	4.38	3.98	36.12	8.25	Large and late
RML 8793	10.42	4.51	10.63	60.90	13.50	Large fruit, medium course netting, light suture, large cavity pale flesh
Starfire	10.08	3.17	13.29	67.10	20.40	Fair suture, course net, soft flesh, musky, good flavor
Starship	11.38	2.90	7.08	66.09	22.75	Similar to Starfire, not as sutured, good flesh color, good flavor
Starsweet	11.33	3.15	0.00	81.95	26.00	Attractive shape, deep suture, course net, soft flesh, bland
Sugar Bowl	12.78	2.64	4.27	54.69	20.75	Slightly oblong, deep suture, great flavor and flesh color, small cavity.
LSD ^Y		0.77	13.95	27.04	7.58	

^Z Each plot contained eight plants planted 18" apart within rows that were six feet apart. Plants were started in the greenhouse on May 17, 2002 and transplanted into beds covered with black plastic much. Each variety was replicated four times in a randomized complete block. Numbers within columns with differences greater than the LSD value are significantly different (95% confidence level).

^Y

Results: Most of the varieties performed well under very hot and dry conditions that characterized the 2002 growing season in Maine. The one exception was Minerva, which had very low yields and may be too late for the short growing season in Maine. Earliqueen and Fastbreak were the earliest of the varieties evaluated and share many of the same characteristics: small size, deep suture, fairly course net and good flavor. Perhaps the greatest drawback of these two varieties is the relative speed with which they pick-out. These are truly, first-early melons and need to be sequentially planted or followed with a main season variety. Starfire was the next earliest melon in our trial and was in the middle of the range for total yield. The fruit quality was very good with a pleasant musky scent and good flavor. Starship was similar to Starfire. Starsweet was one of the most attractive melons in this trial. It had good fruit size and the greatest yield in the trial. However, the flesh was soft and the flavor bland. Athena, Minerva, Eclipse and RML 8793 are best classified as Eastern shipper type melons and, in general, lack the suture or musky aroma of a true muskmelon. Athena was uniform with high yields and good fruit quality. RML 8793 had the largest fruit size of any variety in our trial. In fact, RML 8793 may be too large for many roadside markets. Eclipse was the most variable variety in this trial. There was a vast range in the degree of netting on the fruits of this variety. Although the flesh color was deep orange, the flavor in this trial was poor. Sugar Bowl was judged to have the best overall fruit quality but, the fruit size was small and total yields were average.

Conclusions: Based on this study, there are several new melon varieties available that offer good fruit quality and high production for local retail and wholesale markets. Earliqueen and Fastbreak are good choices for the early market while the Star series and Sugar Bowl are excellent choices as main season varieties. Crop performance will vary depending on local growing conditions, season, and crop management. Always test new varieties on your farm in small trials and compare them to your current favorite. I would like to thank all the seed companies that provided seed for this trial, including Harris Seeds, Johnny's Selected Seeds, Seedway and Seigers Seeds.

EXPLORING THE SMALL FARM DREAM: IS STARTING AN AGRICULTURAL BUSINESS RIGHT FOR YOU?

The New England Small Farm Institute has developed this four-session course and workbook for people who are actively considering starting a farm. Participants will set goals, assess available resources, determine if farming *as a business* is right for them, and develop action plans to guide next steps. They will take a close look at what it takes to own and manage a successful farming venture—the realities of working for yourself, including the particulars of operating a farm. For those who cannot schedule participation in an “Explorer” course, the workbook is available for self-guided study.

The class meets at the New England Small Farm Institute located at 275 Jackson St, Belchertown, MA, over the course of four consecutive Tuesdays: April 1, 8, 15, and 22 evenings, from 6-9pm each night. The class size is limited to 12 enterprises. Up to four enterprises may register two participants. The fee is \$60 for one individual; \$90 for two people working on the same business idea. Fee includes one workbook per enterprise and additional handout materials.

To apply: Contact the New England Small Farm Institute at (413) 323-4531 or rozc@smallfarm.org to receive further information and application materials.

Vegetable Notes is a publication of the University of Massachusetts Extension Vegetable Program, which provides research-based information on integrated management of soils, crops, pest, and marketing on Massachusetts's farms.

Subscriptions to **Vegetable Notes** include the **IPM Newsletter**, published weekly during the growing season.

For subscription information, call Marilyn Kuzmeskus at 413-577-0712, or visit our website at www.umassvegetable.org. For more information about the Vegetable Team's research and UMass Extension programs, call Ruth Hazzard at (413) 545-3696

