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Message from the Editor

Meetings, Meetings, Meetings: This is the time of year for meetings. Much of this issue of Berry Notes is dedicated to informing you of upcoming meetings and conferences. These meetings provide an important opportunity to learn what's new in berry growing, meet with other growers and compare notes on this season (what worked and what didn't), and get updated information on the changing landscape of pest control practices.

Strawberries

Future Strawberry Production Systems for Ohio

Richard C. Funt, Ohio State University

Dr. Marvin Pritts has written an excellent article about the future of strawberry production and takes a global view of issues facing researchers. High inputs of unsustainable practices of fumigation, plastic, and dependence on pesticides plus inconsistent fruit quality that is often unaffordable to low income segments of the population are a few items to be addressed (Pritts, 2001, IPM Update, Iowa State University). Dr. Pritts' plants, the idea that a redesign of strawberry production to meet profitability and environmental needs, and not cause harm to the local community is necessary.

Currently in the eastern U.S., growers are trying new systems of production indoors as hoop-houses and greenhouses, and outside with plasticulture systems. My former colleagues at the University of Maryland have written a ten year summary of strawberry plasticulture, which was completed at the Maryland Wye Research and Education Center (on the Eastern Shore). In

1996 and 1999 the site was under several freezes in March, which froze early blooms and buds. And in mid-May of 1999 temperatures turned to 90 degrees F and shut down some plants. Average planting date was early to mid September, but this area of Maryland can have more than 200 growing days per year as compared to 165 to 180 days in Ohio (Rouse, R.J., J. Bouwkamp and M. Newell, 2001. Ten year summary of strawberry plasticulture. The Maryland Orchardist. MD State Hort Society. Sept. 2001, pages 4-6).

General conclusions for strawberry plasticulture for Maryland Eastern Shore and Southern Maryland:

- Plug plants are preferred.
- Deer exclusion is a must.
- Frost protection is a must as we get blooms earlier than normal June bearing system.

- A high, well-formed bed is a must, along with good fertility and pest management spray programs.
- Row covers are needed for winter protection and for protection from cold, late winds. A real must for most seasons, heavier covers 0.9 to 1.5 ounce weight preferred.
- Plant in the ideal window for varieties grown. At the Wye this is usually early to mid-September (10th-20th) for Chandler. For Sweet Charlie, September 1. Each variety is a little different.
- Order your plants well in advance with your nursery or plug plant grower.
- Orient rows north to south rather than east to west, if possible.
- System requires both drip irrigation and overhead irrigation for success. Water management is critical, both for plant growth and frost protection.
- Plant tissue test for nitrogen and boron; fertigate according to recommendations.
- Practice good integrated pest management; stay on top of mites and gray mold.
- Make sure the fruit is ripe to the tip for local sales if you want flavor.
- Direct market your crop. Marketing is the key to success.
- Double crop or multiple crop your plastic beds.
- This is a high management-intensive system with input costs in the \$8,000 to \$10,000 per acre range. Start small, 1/4 acre or so to learn and be willing to pay tuition.
- Strawberry plasticulture is a continuous learning experience.

Recently in Ohio, more research is being done to overcome the issues listed in the Maryland report. Modifying the current strawberry plasticulture recommendations to Ohio is a challenge and will require considerable effort. However, exciting new numbered strawberry cultivars show promise as well as timing of planting plug plants. (*Source: Ohio Fruit ICM News, Volume 5, Issue 37, 2001*)

Raspberries

New Approaches to Dealing with Root Rot in Raspberry

Diane Kaufman, Oregon State University

Pete Bristow presented some interesting research on the potential of solarization for controlling root rot in raspberries at this year's Western Washington Hort Society Meeting. The experiment took place at the WSU-Vancouver Research and Extension Unit on a site naturally infested with *Phytophthora*. Plots to be solarized were covered with clear polyethylene film, which remained in place for 8 weeks (July 23 – Sept 23, 1998). The following spring varieties 'Skeena' and 'Qualicum' (both very susceptible to *Phytophthora* root rot) were planted on flat (not raised) beds. At the end of the first season, Qualicum plants in plots that had been solarized and/or treated with Ridomil Gold were larger than plants in untreated check plots. There were no differences in the growth of the Skeena plants. All canes were cut off in Nov. 1999.

As soon as primocanes began to emerge in spring, 2000, it became evident that plants in solarized plots were the most vigorous. By the end of the growing season, plants in the solarized plots had significantly more canes per plot and more cane height. Plants in the solarization + Ridomil Gold plots had similar vigor to plants in solarization only plots:

Impact of Soil Solarization and Ridomil Gold on primocanes in 2000.

Treatment	Qualicum	Skeena
Number of healthy canes/plot		
Untreated check	6.3 a	16.3 a
Ridomil Gold only	18.0 a	26.3a
Solarization only	41.8 b	53.5 ab
Solarization +Ridomil Gold	47.2 b	67.5 b
Length of healthy canes, cm		
Untreated check	63.4 a	68.7 a
Ridomil Gold only	78.5 a	84.6 b
Solarization only	107.4 b	90.6 bc
Solarization + Ridomil Gold	109.4 b	111.6 c

Based on these results, growers considering establishing new plantings of raspberries on root-rot prone ground may wish to consider solarizing the plots during the heat of the summer before planting. Since raised beds would probably increase the long-term health of the planting, it may be a good idea to form the beds first and place the plastic over the raised beds. For best results, soil should be moist prior to laying down the plastic. One additional advantage of soil solarization is that it also reduces populations of certain weed species.

The good news from Pat Moor is that WSU 1162 is apparently root rot resistant. The not-so-good-news is that the fruit

is medium sized, light colored, and more acidic than Meeker. (Source: Oregon Caneberry Newsletter, January 2000)

Editors Note: This article comes from the westcoast and the cultivars used are not ones that we can grow in New England. However, the general information is interesting and may prove useful in New England.

Grapes

Pierce's Disease Confirmed in Kentucky

Bruce Bordelon, Purdue University

There is potential bad news for Indiana grape growers from the state down under. Researchers in Kentucky have investigated and confirmed a case of Pierce's Disease in grapes near Owensboro in northwest Kentucky. PD normally is not found as far north as the Ohio River valley because it is not believed to be able to survive the cold temperatures. Infections may occur as leaf hoppers carrying the bacterium are moved northward with summer winds, but any bacteria that successfully infect plants die during the coming winter, effectively curing the vines of the infection. For some reason, this apparently has not happened in this case and the vines are showing typical symptoms of PD that occur 23 years after the initial infection. We don't know what to

expect, but we are urging any grape grower who has vines showing symptoms of PD to contact us so that we can have the plants sampled and evaluated for the pathogen. PD infected vines show marginal leaf necrosis, leaf drop leaving the petiole, and uneven maturation of the shoots. A good discussion can be found on the website at <http://www.cnr.berkeley.edu/xylella/>. A similar strain of the same pathogen causes leaf scorch on a number of shade trees in this region, so it is unclear why PD has not been found on grapes sooner. We'll keep you posted on what we find and hopefully have more information at the winter meetings. (Source: *Facts for Fancy Fruit*. FFF01-13, October, 17, 2001)

General

Summary of a Cover Crop Trial

Vern Grubinger, UVM Extension

Lee Stivers, Director of the New York Crops Research Facility, recently conducted a 10-acre trial of cover crops over 2 years in western NY with funding from the USDA Northeast Sustainable Agriculture Research and Education program. The soils in this field had been heavily cropped, primarily in turf, for many years. There was a standing crop of wheat in the field when the project started in March, 2000. Large (3/4 acre) plots were established with different combinations and timings of the following cover crops: frost-seeded mammoth red and medium red clover, sudangrass, buckwheat, yellow blossom sweet clover, rye, and hairy vetch. The findings:

Medium red clover survived the winter of 2000-2001 (relatively severe) better than mammoth red clover. Increasing the seeding rate of medium red clover from 10 lb per acre to 15 lb per acre increased dry matter production in both the first and second years. Spring frost-seeding of clovers into wheat was much more successful than fall seeding onto bare ground.

In a single year, Sudangrass can produce as much dry matter as a well established clover stand, but in less time. Sudangrass produced about as much biomass from July through September, 2000, as did red clover from March through October.

Over the course of the entire year and a half, no cover crop combination tested in this demonstration out-

produced a good stand of medium red clover. It took a combination of three annual cover crops, requiring considerably more tillage and planting passes, to equal the dry matter production of a good stand of medium red clover. Groundcover was constant with the frost-seeded clover plantings. Annual cover crops, while allowing more flexibility for integrating with cash crops, always required tillage and a period in which the soil was exposed.

Hairy vetch planted alone did not provide a great deal of groundcover over winter. However, it survived the tough winter very well and produced a considerable amount of spring re-growth. In this demonstration, the rye greatly out-competed the vetch when they were grown in combination. While vetch seedlings were quite evident in this plot in the fall, during the spring re-growth the rye greatly dominated the plot. This is surprising since the conventional wisdom is that in poorer soils, vetch will compete better with rye since it is not dependent on soil nitrogen.

It is extremely difficult to manage a rye cover crop if it has been allowed to head-out before incorporation. Even after bush-hogging the rye in late May, we were unable to get it properly incorporated into the soil well enough to plant anything back into the plot. The extreme lack of rainfall made the situation worse, and that section of the plot was left fallow over the summer of 2001.

Relying on a winter vetch cover crop and cultivation alone did not provide adequate weed control for sweet corn during the dry summer on this poor soil. Early in the season, weed control in the sweet corn looked very good considering there had been no herbicide applica-

tions. However, the lack of rainfall resulted in such poor sweet corn growth that weeds had gotten completely out of control by August. (*Source: Vermont Vegetable and Berry News, Oct. 15, 2001*)

Got an idea?

Sue Ellen Johnson, New England Small Farms Institute, Belchertown, MA

The Farmer Research Group Network provides organizational and scientific support to groups of three or more farmers interested in investigating ideas or practices to enhance their farms economic or environmental sustainability. The network helps farmers link up with other farmers who have similar interests and systematically research their ideas on their farms. It also provides small stipends to each participating farmer. The network is supported by the Universities of Connecticut and Massachusetts, Connecticut and Massachusetts NRCS, The New England Small Farm Institute, and the Northeast Sustainable Agriculture Research and Education (SARE) Program. Funds are available to cover research materials, lab fees, consultant expertise, communication and meeting costs as well as stipends which help pay for farmers time.

If you have a practice or an idea you are experimenting with on your farm and realize working with other farmers will result in more meaningful, conclusive results contact the Farmer Research Group Network through Sue Ellen Johnson (413-323-4531) or Tom Morris (860-486-0637). We're happy to talk with your organization about Farmer Research Groups and how they can contribute to the status and future of agriculture in southern New England.

As of October 1, Farmer Research Groups are planning research to evaluate: 1) Manure management alternatives, 2) A fall soil nitrogen test alternative to the presidedress nitrate test, 3) Fall manuring of rye cover crops, 4) Direct cut grass silage, 5) Perennial ryegrass varieties, 6) Methods for pasture reclamation

New Food Processing Center to Open in Western MA: October, 2001

Chris Wychorski, Federation of Massachusetts Farmers Markets

The Franklin County Community Development Corporation is very excited to announce the opening of a new commercial food-processing center in Massachusetts. "This shared use, commercial kitchen incubator is furnished with modern food processing equipment, walk-in cooler and freezer and dry storage areas. This State Board of Health approved Center is a valuable element in supporting [Massachusetts] agriculture by adding value to your farm products, generating new revenues and creating new business opportunities. This Center, unique for Massachusetts, is ideal for specialty food entrepreneurs, farmers, caterers, churches, schools, and civic organizations from all areas. Special services are available including business lending, technical assistance, office equipment and multiple resources to assist people on how to craft their products."

To use the Center, begin by calling Program Manager, Andrea Kohles and complete a user application (which is short - one page!). Next, set up an appointment with Andrea to tour the facility and attend orientation training.

This training is designed to introduce you to any commercial equipment you may not have experience with and to discuss safety, sanitation and Good Manufacturing Practices (GMP). The training takes about two hours. Andrea will discuss the hourly rate with you at that time as well as address any questions you may have. The final step is to set up your desired block of time to cook up your jams, jellies or other value-added delight.

Andrea Kohles, who has an extensive background in food handling, will be available full-time (9-5) to assist you with questions or problems that may arise while using the center.

Funding for this endeavor comes from the MA Department of Food and Agriculture, USDA's Rural Development and the U.S. Department of Housing and Urban Development's Economic Development Initiative. (*Source: Massachusetts Marketeer, Fall 2001 via Massachusetts Vegetable Notes, Vol. 12, No. 19, Oct. 22, 2001*)

IPM Certification Grows Nationwide

THE FOOD ALLIANCE, a non-profit, IPM-based eco-label headquartered in Portland, OR has received a grant for \$810,374 from the Kellogg Foundation to continue its national expansion. The Food Alliance and affiliated Midwest Food Alliance have certified more than 100

farms and ranches for IPM, human resource management, and soil and water conservation practices. Funded project title: "Create a replicable model for organizations across the country interested in promoting market-based incentives for sustainable farming and ranching in their region."

See The Food Alliance <http://www.thefoodalliance> for more information on the Food Alliance, or Kellogg Foundation <http://www.wkcf.org/> for more information on the Kellogg Foundation.

Sixteen CORE VALUES NORTHEAST tree fruit farmers have been certified as IPM producers for 2001. Certification is managed by the IPM Institute. For more information on the program and how to contact certified growers, see CVN www.corevalues.org.

RED TOMATO, a non-profit broker for CORE Values Northeast and other IPM-produced fruit and vegetables, has received a two-year grant in the amount of \$56K to help further the marketing of local, ecologically grown product using integrated pest management (IPM) methods. The Environmental Protection Agency (EPA) Region I Office under the Agricultural Initiative grant program awarded the grant.

A new non-profit organization growing out of the Wisconsin Potato Collaboration is seeking an executive director. PROTECTED HARVEST is dedicated to the promotion of sustainable agriculture and enhancement of wildlife and the environment. The executive director will report to the Board of Directors and will be responsible for the organization's consistent achievement of its mis-

sion and financial objectives. The new position is funded by a grant from the Joyce Foundation. Contact Jeff Dlott CEO, Real Toolbox, 7600 Old Dominion Court, Apros, CA 95003. Phone: (831)684-9207, Fax: (831)684-9218, e-mail: jeff@realtoolbox.com.

The USDA Small Business Innovative Research (SBIR) Program has awarded IPM WORKS of Madison, WI a two-year \$271,000 grant to complete research and development on comprehensive IPM risk management for corn and cotton farmers. The ultimate goal of the project will be to provide financial risk management products to cover the risks farmers face when adopting IPM techniques. For example, corn farmers following a crop consultant's recommendation not to treat for corn rootworm (i.e., as a result of below-threshold visual or trap counts for beetles) currently bear significant economic risk if the consultant's advice is in error. New financial products such as insurance policies or warranties could compensate farmers for rare failures of IPM techniques, and thus reduce an important barrier to adoption. FMI: See the web site for project partner Agricultural Conservation Innovation Center ACIC www.agconserv.com. (Source: *IPM Institute News, IPM in the Marketplace, October 16, 2001, Volume 2, Issue No. 3*)

Meetings

New England Vegetable and Berry Growers All Day Meeting

November 3, 2001

New Location: New England Center @ University of New Hampshire, Durham, NH.

We announced this event in our last issue (September 20). Since that time the location of the meeting has been changed to the New England Center on Strafford Avenue on the campus of the University of New Hampshire in Durham, NH at the same time with the same events.

The morning program will focus on raspberry cultivation and the afternoon program will include talks on: Vegetable variety trials, a Crop Storage Practices Update, Control of Atrazine Resistant Weeds, and Greenhouse Tomato Culture. For more details see previous newsletter.

Directions to the New England Center at UNH are: From Portsmouth Traffic Circle, go North on Spaulding Turnpike to exit for Route 4 West. Take a left at the 3rd traffic light and a right at the 1st stop sign. Finally take a left onto Strafford Ave.

For those who are not members of the NEVBGA, there is a \$10 registration fee. Pesticide applicator re-certification credit has been requested and will be reciprocal with all New England states. For more information contact Dom Marini at (508) 378-2546.

New England Vegetable and Berry Conference and Trade Show

December 11-13

Sturbridge Host Hotel, Sturbridge MA

Mark your calendars for December 11, 12 and 13, 2001! That's when the 12th New England Vegetable and Berry Conference and Trade show will take place, at the Sturbridge Host Hotel in Sturbridge, Massachusetts, near the junction of I-90 and I-84. This one-of-a-kind regional event should be attended by anyone with an interest in commercial horticulture.

The 3-day educational program offers 4 concurrent sessions each morning and afternoon. There will be a total of 120 individual presentations! On Tuesday, December 11: the sessions cover strawberries, cole crops, tomatoes, weed management, labor, biotechnology, and trickle irrigation. On Wednesday, December 12 the sessions are on blueberries, peppers, sweet corn, bedding plants, greenhouse tomatoes, brambles, and cover crops. The sessions on Thursday, December 13 discuss cucurbits, fall ornamentals, alliums, lettuce and greens, cut flowers, food safety, biological controls and organic production.

What makes this conference exceptional is the close collaboration of growers and Cooperative Extension in planning the program. We gather the best speakers from within our region and from other parts of the country to tell you about on the latest practices in vegetables and small fruit. Every session includes both farmers and researchers or Extension personnel, so you get the 'best of both worlds'.

The extensive and diverse Trade Show is open every day, and it includes over 100 exhibitors offering seeds, supplies, greenhouse equipment, field equipment, books, fertilizers, pest control materials, and more. In addition to commercial vendors, non-profit educational organizations will also be on hand to explain their services.

The cost of attending the conference and/or trade show is an exceptional value. If you pre-register before November 15, the price is just \$40 per person. Registering additional people from the same farm costs just \$20 per person. There is an additional \$10 charge per person for registrations mailed after November 15, or for registering at-the-door. The registration price is the same whether you attend for just one day or for all 3 days.

To request a printed program and registration form, contact Dr. Anne Carter at (413) 545-5216 or akcarter@pssci.umass.edu, For general information on the conference and trade show contact Dr. Vern Grubinger at (802) 257-7967 or vernon.grubinger@uvm.edu. Exhibitors interested in the Trade Show should call Dom Marini at (508) 378-2546. The entire program as well as registration forms are also available on the conference web site: www.nevbc.org.

A special lodging rate of \$69 for single rooms or \$77 for double rooms is being offered to conference attendees by the Sturbridge Host Hotel. In order to get this rate you must register directly with the hotel by November 15. Call (508) 347-7393.

Greenhouse and Garden Retailers Expo 2001

November 13, 14, 2001

Best Western Royal Plaza Hotel, Marlborough, MA

This is not your typical tradeshow! After listening to nationally recognized experts on various plant production and marketing topics, you will enter an exhibit hall with approximately forty exhibits designed to meet the needs of your business. Two concurrent educational sessions are planned from 9 am to 4:30 pm each day. An hour is scheduled between each session for time to meet with industry representatives.

This event is in place of the Fall Greenhouse Seminar Series which was held on the off year of the New England Greenhouse Conference. The Massachusetts Flower Growers Association and the University of Massachusetts Floriculture Extension Program have joined together to sponsor this new event.

You will have time to discuss solutions to problems with exhibitors and see new products designed to make your greenhouse and retail business more efficient and profitable. Bring your questions and get answers to problems facing you and others in the industry. **Contact:** Paul Lopes 508-295-2212 x24, Tina Smith 413-545-5306, Bob Luczai 978-952-0116

Northeast Community Supported Agriculture Conference III

December 7-9, 2001

Frost Valley Environmental Education Center, Claryville, New York

Community Supported Agriculture (CSA) is a rapidly growing approach to connecting consumers and farmers in a direct, season-long relationship. The Northeast CSA Conference III is designed for farmers, CSA members, extension and other agency personnel, representatives of non-profits, and anyone interested in CSA as part of a more secure and sustainable food system. The Northeast Sustainable Agriculture Working Group (NESAWG) is organizing this event, which will last from Friday noon through Sunday afternoon, December 7-9, 2001. The program will include interactive workshops, featured speakers, trouble-shooting with CSA experts, and a pre-conference mini-school.

Cost for registration which includes six meals and two nights of on-site lodging will range from \$150 to \$280, depending on the style of lodging, which you choose.

For more information contact Beth Holtzman at 802-229-1441 or Ann at 413-323-4531, or e-mail csaconference@together.net. Updated conference information will be posted at: <http://www.csacenter.org/conference.html>

MSU Bramble School 2002

Thursday, January 10, 2002

Holiday Inn Kalamazoo West in Kalamazoo, Michigan

The MSU Bramble School 2002 will be held Thursday, January 10, 2002. The school will be held at the Holiday Inn Kalamazoo West in Kalamazoo, Michigan. This intensive one-day school is designed to help anyone interested in brambles learn more about all aspects of bramble production and pest control. Educational notebooks and a lunch will be provided.

Dr. Marvin Pritts, Department of Horticulture, Cornell University will be the featured speaker for this school. Dr. Pritts will be joined by several MSU experts in presenting a comprehensive educational program. Topics that will be covered include physiology; varieties; nutrition; postharvest disease susceptibility; control of insects, diseases, and weeds; and marketing.

Dr. Pritts will also present a half-day workshop on Friday, January 11, 2002 at the same location as the MSU Bramble School. He will discuss his findings as to the feasibility of producing raspberries in the greenhouse in the winter.

Detailed information and a registration packet will be available in late October. For more information on this school or to be added to the mailing list contact: Al Gaus, 616-944-4126 (gausa@msue.msu.edu); Bob Tritten (tritten@msue.msu.edu), 810-732-2177; or Gary Thornton (thornton@msue.msu.edu), 231-946-1510.

Grower Q & A:

Q: Anybody! As I today surveyed my vines in my 0.2 acre glasshouse, I despaired for the 4th or 5th day to see hundreds of wasps progressively destroying my crop. It occurred to me that this pool of expertise [], might be just the place to seek help.

Has anybody got experience of effective ways to trap/kill wasps quickly? Finding nests is not an option for me as there is so much thicket in the vicinity of the glasshouse. The wasps have just discovered my early varieties, and will work progressively through my whole assortment as they ripen over the next 2 months. I am trying various jam/juice traps, with little success. I have heard one can cause them to poison their nests by laying poison with a fish or jam bait. Has anybody got details of such a solution??? I would be very grateful for any help. Thanks. - David L

A: Lon/David, We have lots of wasps on Vancouver Island too. I have never had problems with the wasps attacking my grapes because I also have apples. We just kick a few windfalls into the grape rows, and the wasps seem to prefer apples to grapes.

Others around here who don't have apples get the wasp scouts early by nailing wasp traps made out of plastic pop bottles to the perimeter posts. To make a trap, cut the top off of the bottle at the shoulder, invert the top section and drop it into the bottom section. The top section will hang up part way into the bottom section. The wasps can walk down and through the narrow opening, but can't get back up and out. Use an ordinary paper punch to make a hole near the upper edge of the trap and nail through the hole into the post. Put an inch of two or pop in the trap and you will catch a lot of scouts. Some say beer is better than pop.

Apparently the theory is that wasps are like bees and they depend on scouts to advise the others where the food is. Not sure if that's true, but there are certainly a lot of drowned wasps in the traps. Good luck, Fraser S. - Vancouver Island

(*Source: Viticulture discussion group: viticulture discussion group at VITICULTURE@listserv.tamu.edu*)

Massachusetts Berry Notes is a publication of the University of Massachusetts Extension Fruit Program which provides research based information on integrated management of soils, crops, pests and marketing on Massachusetts Farms. No product endorsements over like products are intended or implied.