

Fruit Times

Events in the orchard that matter to you!

Horticulture, Entomology, and Plant Pathology Departments, The Pennsylvania State University

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August 26, 2008

Vol. 27, No. 8

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FEATURED ARTICLE –

Eastern Table Grapes: Is it time to build an industry?

Steve Bogash, Regional Horticulture Educator, PSU

The commercial production of Eastern Table Grapes and the subsequent development of supportive marketing has been proposed by many Land Grant University researchers and plant breeders (Fiola, 2001 & Reisch 2002) for at least 25 years. During this period many cultivars have been developed in New York, Arkansas, Michigan and Ontario. As has been the experience in every grape-growing region, specific cultivars have attributes that either identify them as appropriate and profitable to produce or of limited use. A grape that is successful in one region is often much less successful elsewhere based on climate, soil type, etc.

Huge increases in the cost to ship products from anywhere, but most especially California, coupled with the resurgence in demand for locally grown products may have shifted the balance in favor of increasing production of Eastern Table Grapes. Another factor worthy of consideration is the increasing diversification by traditional tree fruit growers in the Mid-Atlantic away from strictly apples and other tree fruits into a growing list of specialty crops including small fruit,

vegetables and cut flowers. Operations that formerly relied heavily on sales of processing apples have now broadened their focus to include a wide array of fresh

market and value-added products serving both the organic and traditional produce marketplaces.

The question I have posed with Dr. James Travis is: Is it time to develop an Eastern Table Grape Industry? There are now 2 plantings of the following grape cultivars installed in the Biglerville, PA area: Steuben, Einset, Himrod, Marquis, Mars, Reliance, Saturn, Vanessa, Jupiter, Venus, Glenora, and, Seneca. One planting is located at the PSU Biglerville Fruit Research and Extension Center (FREC), and the other at Beechwood Orchards. Planning for this project started in 2006 with the majority of the installation in 2007. Due to the extremely dry conditions in 2007, some plants required replacement in the spring of 2008.

Prior to this project, plantings using many of these same cultivars have been placed at the University of Maryland Western Maryland Research and Education Center as well as Cornell Finger Lakes facilities. As with any issue involving individual taste buds, there is substantial room for discussion when it comes to specific cultivars and their flavors. As a long time consumer of table grapes, I feel somewhat comfortable making the observation that in general, Eastern table grapes have stronger flavors than most of the grapes found in supermarkets when the source is Chile or our West Coast.

When shipping was inexpensive, it was very difficult to economically produce table grapes that were competitive with California. Many growers that I've visited over the years have small plantings of Concord, Himrod, Canadice, Lakemont and some other varieties that were managed as niche plantings, but with little commercial significance. The generally longer growing season and milder climate in California produces large yields of grape varieties that are all but impossible to grow here. High shipping costs, equally high labor costs, and the demand for locally grown products have changed the formula. These factors significantly change the balance, making it time to reconsider locally produced table grapes.

Many questions remain: What varieties will meet the demands of the marketplace? What are the best methods to manage these grapes including trellising and pest management? And, What are the economics of producing them? As these 2 plantings mature and come into production in 2009, we hope to begin answering these questions.

Funding for this project has been provided by the Pennsylvania Vegetable Growers Association, small fruit funds and the Pennsylvania Department of Agriculture.

ENTOMOLOGY

PHEROMONE TRAP COUNTS:

2008 season - weekly capture of adult moths in pheromone traps located at PSU FREC Biglerville, PA (Adams County):

Species	7/03	7/10	7/17	7/24	7/31	8/07	8/14	8/21
RBLR	22	16	3	2	18	18	15	39
STLM	663	1296	1823	2457	2498	1566	1256	1032
OFM	43	81	28	65	36	36	34	75
CM	14	7	76	82	67	40	29	23
TABM	0	0	0	8	7	15	15	13
OBLR	0	0	1	8	16	6	3	4
DWB	38	29	37	26	31	40	27	37

Key to acronyms: RBLR - redbanded leafroller; STLM - spotted tentiform leafminer; OFM - Oriental fruit moth; CM - codling moth; TABM - tufted apple bud moth; OBLR - obliquebanded leafroller; DWB - dogwood borer.

DEGREE-DAY TABLE: Accumulated degree-days base 43 F from Jan 01 for each reported year (courtesy of SkyBit, Inc.). The accumulated degree-days for the last date of the current year (Sep 01) mentioned in the table are based on the weather forecast.

Site/Date	7/28	8/04	8/11	8/18	8/25	9/01
Biglerville, 2008	2727	2955	3150	3335	3529	3710
Biglerville, 2007	2732	2974	3218	3433	3603	3819
Biglerville, 2006	2771	3043	3260	3458	3676	3880
Biglerville, 2005	2676	2898	3130	3370	3571	3777
Biglerville, 2004	2782	3013	3185	3367	3564	3782
Rock Springs, 2008	2324	2528	2696	2859	3034	3193
Rock Springs, 2007	2339	2596	2818	3011	3168	3360
Rock Springs, 2006	2391	2641	2837	3012	3203	3376
Rock Springs, 2005	2331	2551	2766	2986	3167	3347
Rock Springs, 2004	2419	2624	2772	2926	3102	3301

PRE-HARVEST INTERVALS (PHI) FOR COMMONLY USED INSECTICIDES: *Following our tradition from the last six years, we again place an updated version of this article to help you in deciding which compounds can be used at this time of the season, when harvest is just around the corner.*

There is a high probability that in some orchards additional insecticide treatments will still need to be applied later this season. In addition to choosing the most effective compound, it is very important to always check the legal pre-harvest intervals (PHI) before deciding which pesticide can be used at this time of the season. The following information is a reminder only, and the label on each insecticide has to be checked before any pesticide application.

Acetamiprid (IRAC Group 4A) (**Assail 30 SG**)— 7 day PHI on pome and stone fruit, no more than 32.0 oz of formulated product per acre per season.

Azinphos-methyl (IRAC Group 1B)(**Guthion**) – 14 day PHI on apples if applied less than 1 pounds of active ingredient (AI) per acre; 21 days on apples if more than 1 pound AI per acre; 14 days on pears. On apples and pears no more than 3.0 pounds/acre of AI can be applied during a season, on pears no more than 3 lbs of AI per season. Please check special regulations for the 'pick-your-own" or "U-pick" operations.

Carbaryl (IRAC Group 1A)(**Sevin**) – 3 day PHI on apples; 3 days on pears; 3 days on peaches and nectarines.

Clothianidin (IRAC Group 4A)(**Clutch**) – 7 days PHI on apples and pears; no more than 0.2 lb AI per acre/per season is allowed.

Codling moth granulosus virus (**Cyd-X, Carpovirusine**) – can be applied up to the day of harvest,

Cyfluthrin (IRAC Group 3)(**Baythroid, Tombstone**) – 7 day PHI on both pome and stone fruit; no more than 2.8 fl oz per acre/per season on pome fruit; no more than 5.6 fl oz per acre/per season on stone fruit

Deltamethrin (IRAC Group 3)(**Battalion, Decis, Delta Gold**) – 21 day PHI on pome fruit, do not apply more than 0.042 lb AI per acre per season.

Enamectin benzoate (IRAC Group 6)(**Proclaim**) – 14 day PHI on pome fruit; no more than 14.4 oz per acre/per season.

Esfenvalerate (IRAC Group 3)(**Asana**) – 21 day PHI on apples; 28 days on pears; 14 days on stone fruit. On apples no more than 0.525 lb of AI per acre/season is allowed.

Fenpropathrin(IRAC Group 3)(**Danitol**) – 14 day PHI on apples; 14 days PHI on pears. On both crops no more than 0.8 pound of AI is allowed per acre/season.

Gamma-cyhalothrin (IRAC Group 3)(**Proaxis**) – on pome fruit do not apply within 21 days of harvest, on stone fruit the PHI is 14 days; do not apply more than 0.1 lb AI per acre/per season.

Indoxacarb (IRAC Group 22)(**Avaunt**) – 14 day PHI on apples and stone fruit; 28 days on pears. On all three crops no more than 0.44 pound of AI is allowed per acre/season.

Lambda-cyhalothrin (IRAC Group3) (**Warrior with Zeon Technology, Taiga Z**) – 21 day PHI on pome fruit, 14 day PHI on stone fruit.

Methomyl (IRAC Group 1A)(**Lannate**) – 14 day PHI on apples; 7 days on pears; 4 days on peaches; 1 day on nectarines (PA only). On apples no more than 4.5 pounds of AI/acre is allowed, on peaches no more than 5.4 pounds of AI per acre/season; on pears no more than 1.8 pounds of AI per acre/season.

Methoxyfenozide (IRAC Group 18)(**Intrepid**) – 14 day PHI on apples, 7 day PHI on peaches and nectarines. No more than 1.0 pound of AI allowed per acre/season. Novaluron (IRAC Group 15)(**Rimon**) – 14 day PHI on apples. The compound is not registered on any other fruit crop. No more than four applications is allowed per season, no more than 150 oz per season.

Phosmet (IRAC Group 1b)(**Imidan**) – 7 day PHI on apples; 14 days on peaches; 14 days on nectarines. On apples no more than 21 pounds of AI per acre/season is allowed, on peaches no more than 11.9 pounds of AI per acre/season.

Rynaxypyr (IRAC Group 28)(**Altacor**) – 14 day PHI on pome fruits, 10 days PHI on stone fruit.

Spinetoram (IRAC Group 5) (**Delegate**) – 7 day PHI on apples; 14 days on peaches; 1 day on nectarines. No more than 0.438 pound of AI is allowed per acre/season on registered fruit crops

Spinosad (IRAC Group 5)(**SpinTor**) – 7 day PHI on apples; 14 days on peaches; 1 day on nectarines (PA only). No more than 0.45 pound of AI is allowed per acre/season on registered fruit crops.

Thiacloprid (IRAC Group 4A)(**Calypso**) – 30 day PHI on apples and pears, no more than 16 fluid ounces per acre per year

Please always read the label before applying any pesticide.

WEEKLY INSECT BYTES ON FREC WEBSITE: Similarly as during previous years, starting in early June the PSU Fruit Research and Extension web site located at:

<http://frec.cas.psu.edu/> will again provide the *Weekly Insect Bytes*. In addition to our weekly traditional updates on pest captures

(<http://frec.cas.psu.edu/PheromoneTraps.html>) and insect developmental models

(<http://frec.cas.psu.edu/EggHatch.html>) this part of our web site will provide a short updates on current events and happenings related to the management of insect fruit pests.

(Submitted by G. Krawczyk and L. Hull, Dept. of Entomology, PSU)

PLANT PATHOLOGY

UNUSUALLY SEVERE CHERRY LEAF SPOT DISEASE MAY PUT NEXT YEAR'S CROP AT RISK: From a plant pathology perspective, this has been an excellent year for development of many fungal diseases that affect plant foliage. The frequent rains in May and early June

when leaves for many plants were tender provided the ideal conditions for infection and disease development. Not surprising therefore, we have an unusually high levels of cherry leaf spot disease in our orchards. Many of you may have noticed that cherry leaves turned yellow in late July to early August. At this time, most trees have already shed more than a half of their leaves---which is too early compared to 2006 and 2007 when most leaves were shed in mid to late September. A close inspection of the yellow leaves will reveal numerous spots caused by the cherry leaf spot fungus *Blumeriella jaapii*.

Why should we be concerned? There are two main reasons why we should be concerned about severe cherry leaf spot this year. First, everything being equal, we can expect more inoculum to overwinter and as a result a higher disease pressure next year. *Blumeriella jaapii* overwinters in infected leaf litter on the orchard floor. The more infected leaves there are that overwinter, and the more severe the levels of infection on those leaves, the more the spores to be produced early next spring.

Secondly, early defoliation is likely to affect the return yield in 2009. My own research and that of others indicates that defoliation occurring too early will not only limit the number of flower buds formed, it may predispose trees to winter injury. Within Pennsylvania, defoliation occurring any time in July leads to significant negative effects on return yield of tart cherries the following year. Defoliation before mid July can result in partial die-back of affect shoots.

So what can we do about the situation? Obviously, the time to stem this year's epidemic is well past. However, I will let you into a little secret...I made an application of Indar on July, 2 which was soon after harvest; the treated trees still look green and have lost less than 10% of the leaves to date. It's about the best evidence I have for utility of post-harvest fungicide applications for this disease. Even if you did not make a post-harvest fungicide application, there are several sanitation practices that should help reduce overwintering inoculum. This include, removal of leaf litter through raking and shredding, and application of 2.5 to 5% urea in the fall to facilitate decomposition of the infected leaves thereby denying the fungus a refuge. This is about the time to think and start preparing yourself for such practices.

(Submitted by: Dr. Henry K. Ngugi, Penn State University, FREC)

OTHER

CONNECTING WITH THE 2008 FARM BILL: As you may have heard, the 2008 Farm Bill has allocated money specifically towards specialty crop production. How does this affect our industry here in Pennsylvania? Simply put, more people are trying to distribute more money and are eager to find new projects to fund across the state.

EQIP (Environmental Quality Initiatives Program) funding will increase from \$1.2 million to \$1.7 by the year 2012, and payment limitations will decrease to \$300,000 over a 6-year period. New to EQIP will be specific money designated to organic production and transition. Pest management programs, such as IPM, will continue to run as before. While the first-round of applications will be looked at as of August 29, 2008, please feel free to sign-up anytime. Remember that sign-up for EQIP is continuous, and by having an application on file with NRCS makes you eligible for the next round of selection.

A new program called the Conservation Stewardship Program (CSP) could be quite beneficial for specialty crop growers. CSP will reward growers for implementing new conservation practices and increasing their level of stewardship of the land. Where EQIP is technically specific, CSP is more broad and general. To be eligible you must already care for one priority resource concern on your land, and by the end of the contract you must meet one additional resource concern (such as soil and water, etc).

CIG (Conservation Innovation Grant) specifically denotes funding for specialty crops. WHIP (Wildlife Habitat Incentives Program) focuses more on private agricultural lands

and increased the funding for long-term agreements, capping at \$50,000 per fiscal year. AMA (Agricultural Management Assistance) made some progress by expanding to include 16 states, giving a greater chance for future programs to develop.

If you have an idea or project you would like to pursue, such as running irrigation or reducing pesticide use, the best first step you can take is to contact your local NRCS County Conservationist. The harvest season will soon be over, so take the time to learn of opportunities the new Farm Bill may have to offer. Opening a dialogue with your Conservationist will not only establish an ally for your farm but may keep you in the know of new funding opportunities in the future.

For more information: www.pa.nrcs.usda.gov

(Submitted by Maggie Reid, Mid-Atlantic Young Grower Alliance)

ANNOUNCEMENTS

Announcement for Chemical Company Reps or Distributors

2008 CHEMICAL EVALUATION FIELD DAYS PENNSYLVANIA - WEST VIRGINIA - VIRGINIA

TO: Pesticide Industry Representatives, Agricultural Research and Extension Personnel, and other interested persons

FROM: Faculty and Staff
The Pennsylvania State University
Fruit Research and Extension Center
P. O. Box 330, 290 University Dr.
Biglerville, PA 17307-0330
(717) 677-6116

Faculty and Staff
WVU Tree Fruit Research and Education Center
P. O. Box 609
Kearneysville, WV 25430
(304) 876-6353

Faculty and Staff
Virginia Polytechnic Institute and State University
Alson H. Smith Jr. Agricultural Research and Extension Center
595 Laurel Grove Rd.
Winchester, VA 22602
(540) 869-2560

As in the past, the Chemical Evaluation Field Days for Pennsylvania, West Virginia, and Virginia have been coordinated to make travel arrangements for those involved more satisfactory. Preliminary results will be presented from 2008 research projects involving acaricides, insecticides, fungicides, nematicides, herbicides, plant growth regulators, and other research materials.

Registration

September 9 (8:00-8:30 AM) - PA Fruit Res. and Ext. Center

September 10 (8:00-8:30 AM) - WVU Tree Fruit Res. and Education Center

September 11 (8:00-8:30 AM) - VA Tech Agric. Res. and Ext. Center

Lunch - Arrangements have been made for lunch at Biglerville and Winchester. Please make your lunch reservations with Biglerville or Winchester **so they arrive no later**

than September 3 using the attached form. **NOTE: A CHECK MUST accompany your reservation form to guarantee your meal. Cash will not be accepted at the Registration Table in Biglerville or VA Tech. We must have a check or money order. No Cash accepted.**

Pennsylvania: Cost \$12.00 (**Check payable to Penn State University**)

Virginia: Cost \$20.00 (**Check payable to VA Tech Foundation**)
Reservation(s) must be received no later than September 3, 2008.

APPALACHIA STRAWBERRY FIELD DAY Oakland, MD -September 18, 2008 5:30 PM
(adapted from an announcement by Willie Lantz, Univ. of MD; submitted by K. Demchak)

(Folks – this event will be of value to anyone considering or in day-neutral production, especially growers in cooler areas of the state such as central and northern PA, and southwestern and southcentral PA. Oakland, MD is located in western MD, Garrett Co. Please see below. – KD)

Join us for an evening field day that will feature research being conducted for a three year Northeast SARE Research and Education Grant entitled "An Integrated Approach to Developing a Day-Neutral Strawberry Production Industry". Research conducted through the grant has focused on propagation and production of day neutral strawberries in an annual system. The system is designed to produce fruit during the summer months when local fruit is typically not available. The production system is a great fit for growers in cooler areas of the region as strawberries require cool summer temperatures. The goal of the project is to develop a system of propagating, growing and marketing high quality fruit throughout the summer months.

Topics:

- Variety Trial – Participants will be able to view one of two variety trials with 13 different day neutral varieties.
- Plastic Mulch Colors for Day Neutral Strawberries
- Post Planting Flower Removal
- Spring versus Fall Planting of Day Neutral Strawberries
- Production on 2nd Year Plantings
- Fertilization of Day Neutral Strawberries
- High Tunnel Production with June Bearing Plants

Speakers:

Dr. Harry Swartz, Associate Professor – Horticulture, University of Maryland
Kathy Demchak, Sr Extension Associate – Horticulture, Penn State University
Dr. Lewis Jett, Extension Specialist – Horticulture, West Virginia University
Willie Lantz, Extension Educator, Maryland Cooperative Extension
Sherry Frick, Extension Program Assistant, Maryland Cooperative Extension

Location:

The field day will be held at the newly established farm of Dr. Harry Swartz. The farm is located south of Oakland along Rt. 560 and the address is 4771 Gorman Road, Oakland, MD 21550.

Registration:

The cost of the field day is free and includes a barbeque meal afterwards. If you are planning on attending please call the Garrett Co. extension office to register at 301-334-6960.

(Submitted by Kathy Demchak, Dept. of Horticulture, PSU)

NOTE FROM THE FTN COORDINATOR. Based on the request from the county-based extension educators, during the 2008 season the Fruit Times Newsletter will be available only once per month (last Tuesday of each month except for special exceptions, see below).

Ms. Karen Weaver will be compiling the FTN and distributing it to our electronic subscribers. Karen can be contacted by phone (717) 677-6116 ext. 0 or by e-mail: ksw5@psu.edu.

Listed below are the dates remaining for the year 2008 FTN schedule:

September 30, 2008
October 28, 2008
November 25, 2008
December – no Fruit Times due to Holiday closing

Please send all materials to be included in the newsletter to Karen no later than the day of publication at 10:00 AM. Your assistance in meeting this deadline is highly appreciated.

If you have any questions or suggestions for the newsletter please feel free to contact me.

Thank you.

Greg Krawczyk, Fruit Times Coordinator

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This publication is available in alternative media upon request.

You might also want to visit our Fruit Research and Extension Center (Biglerville) Web Site at <http://frec.cas.psu.edu/>

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