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# Newsletter Extension



# **Fruit ICM News**

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# Calendar

September 18 & 19: Sixth Annual Pawpaw Festival, Lake Snowden, near Albany, Ohio. For information contact pawpaw@frognet.net. The web site for the festival is: http://www.ohiopawpaw.org/pawpawfest.html.

September 21-23: Farm Science Review, Molly Caren Agricultural Center, London, Ohio. See 2,100 acres showcasing a dynamic Ohio agricultural industry. For information contact Chuck Gamble at 614-292-4278 or e-mail gamble.19@osu.edu. The web site for the Review is http://fsr.osu.edu.

February 16-19, 2005: North American Berry Conference, Nashville, Tennessee. Combined conference of North American Bramble Growers and North American Strawberry Growers. See the following article for more information.

# **North American Berry Conference Set**

The North American Bramble Growers Association (NABGA) invites you to the 2005 North American Berry Conference on February 16-19, 2005 in Nashville, Tennessee. This combined conference of NABGA and the North American Strawberry Growers Association (NASGA) will feature a full schedule of bramble-specific sessions, strawberry-specific sessions, and sessions of interest to growers of both fruits, along with an extensive trade show, a farm tour, a berry-product tasting, and lots of opportunities to learn and share with other growers.

What is NABGA? NABGA is a membership association of growers and professionals united in their interest in commercial bramble production and the advancement of the bramble industry. Members include both large and small blackberry and raspberry growers, nursery operators, extension workers, processors, marketers, breeders, researchers, educators, and suppliers across North America. NABGA's activities include a quarterly newsletter, funding of bramble-related research, this annual conference, regional events, and more -- and we welcome your suggestions about what would best help you.

**For more information:** To be added to the mailing list to receive more information about the conference, as well as information about joining the Bramble Growers Association and a sample newsletter, send your name and address (and email) to <a href="mailto:nabga@mindspring.com">nabga@mindspring.com</a> or 1138 Rock Rest Road, Pittsboro, NC 27312.

# **Eyespotted Bud Moth**

Source: Davidson and Lyon, Insect Pests of Farm, Garden, and Orchard

Scouts in north-central Ohio have occasionally observed non-target insects in spotted tentiform leafminer (STLM) traps. After an absence of several years, eyespotted bud moth adults have again been recently collected in STLM traps.

The eyespotted bud moth is said to have been imported from Europe over 100 years ago. It is now distributed in all the principal apple-producing sections of this continent, but it has been a serious pest only in the northeastern and northwestern states.

The moth is somewhat smaller than the codling moth, dark brown with a light-colored band which shows best when the wings are in a normal resting position. The fully grown larva is nearly 12mm in length, brown with a shiny black head and thoracic shield, and a paler mid-dorsal stripe.

Eggs are laid during the midsummer period, singly or in small groups on either upper or lower leaf surfaces. Several days later hatching takes place and the larvae feed on the leaves and silk. Cull apples result from occasional feeding on fruits that are in contact with the leaf shelters. Early in the fall, the partly grown larvae form silken hibernating shelters on twigs at the base of spurs or in crevices in the bark of larger branches. Here they remain inactive until spring, when activity is resumed as the first buds are swelling. They are often found feeding inside the buds or in rolled or twisted leaves. In shelters formed by crumpled leaves and silk, they transform to pupae in early summer, and new adults begin emerging by mid-June, thus completing the single-generation life cycle.

The cyclic nature of bud moth activity is caused by the 14 or more recorded parasites and predators and a nuclear polyhedrosis virus disease that play an important role in control, along with environmental forces (particularly, low temperatures). Winter temperatures of -21F (-29C) usually eliminate this insect.

# **Strawberry Fall Check-List**

Source: Sonia Schloemann, UMass Extension, Massachusetts Berry Briefs, Vol. 1, No. 6, Sept. 10, 2004

# General

Flower bud initiation deep in the crown of the plants is happening now, determining next year's yield. So maintaining good plant health into the fall is important. In addition to keeping up with the fertilizer

program, suppressing leaf diseases improves the ability of the plant to carry on photosynthesis and store starch in the crowns. Don't let leaf spot or powdery mildew get ahead of you. Narrow the rows to about 12" and cultivate the alleys in fruiting fields and new plantings for the last time before mulching. Plant winter rye in plowed down fields as soon as possible in order to get good establishment and growth before winter.

## Nutrition

Nitrogen fertilizer should be applied to bearing beds in early September to bring your seasonal total up to 100-120 lbs/acre. Most growers apply about 70-80 lbs of nitrogen at renovation. The fall application should provide another 30-50 lbs (more on soils with low organic matter content). This stimulates good root growth in the fall and supplies nitrogen needed for flower bud initiation. New fields need to have a total of 80-100 lbs/acre of nitrogen with about 40 lbs applied in the fall. Ammonium nitrate (35% N) is a good fertilizer for the fall application. If your leaf tissue analysis shows deficiencies in magnesium or boron, early fall is a good time for foliar applications of Epsom salts (15lbs/100gal/acre for magnesium) and Solubor (3lbs/100gal/acre) for boron. Don't make these applications on hot humid days, however, or phytotoxicity could result. Read the labels.

## Weeds

Weed management in the early fall is limited to cultivation and hand weeding/hoeing. The only herbicide you should consider using is Poast for controlling grasses. Poast will only work on relatively small grasses. Big clumps of crabgrass will have to be pulled by hand. However, quackgrass can be knocked down by cultivation or mowing and then treated with Poast when new growth is less than 6" high. One note of caution: Poast, which is used with a crop oil surfactant, can injure strawberry foliage in cold weather.

I would recommend its use as a spot treatment at this time of year rather than a broadcast treatment of the whole field. Weed management later in the fall can include applications of preemergent materials such as Devrinol and Sinbar.

## **Diseases**

Clean up severe infections of leaf spot and powdery mildew. Nova® may be a good material for this use. Healthy leaves are important at this time of year to supply the plant with the energy to produce flower buds for next year's crop and to store energy in the roots for the first flush of growth next spring. Apply Ridomil Gold or Alliette in September or early October in areas where Red Stele has been identified. It is best to apply these materials when the soil is beginning to cool but before heavy fall rains begin. This should not be considered an alternative to good site selection for strawberries, though. But, we have had an unusually wet summer, so even good sites may have incidence of this disease.

#### **Insects**

Check fields for infestations of leafhopper or aphids. Generally, plants can take a fair amount of feeding by these insects, but heavy infestations can be a problem. And aphids, in particular, can vector virus diseases and should not be allowed to build up, especially when they are in the winged form and can disperse to other fields.

# **Raspberry Fall Check-List**

Source: Sonia Schloemann, UMass Extension, Massachusetts Berry Briefs, Vol. 1, No. 6, Sept. 10, 2004

## General

Encourage hardening off of canes in summer bearing varieties of red and black raspberries and blackberries by avoiding nitrogen fertilizers and supplemental watering at this time. Do not remove spent floricanes until later in the winter, unless they are significantly infected with disease. Fall bearing raspberries can still benefit from irrigation in dry weather to help maintain fruit size.

## Nutrition

Based on soil and tissue test results, apply non-nitrogen containing fertilizers and lime as needed. For example, Sul-Po-Mag or Epsom Salts can be applied now so that fall rains can help wash it into the root zone for the plants.

## Weeds

Now is a good time to do a weed survey and map of problem areas, so that you can use this information to develop an effective management strategy. A late fall application of Casoron (dichlobenil) for preemergent control of broadleaf weeds next spring should be made only when temperatures are below 40F, preferably just before rain or snow.

#### **Diseases**

Fall bearing raspberries can suffer fruit rot problems due to increased moisture present in the planting (more frequent precipitation, longer dew retention, longer nights) late in the growing season. The majority of this fruit-rot is Botrytis cinerea, gray mold. Captan 80 WDG is now labeled for use on brambles. Elevate®, Switch®, and Pristine® are additional materials available for this use. Frequent harvesting and cull harvesting are the best practices, but are expensive and impractical in many cases. Thinning canes in dense plantings can also help. Scout summer bearing brambles to look for powdery mildew and treat if necessary. See the *New England Small Fruit Pest Management Guide* for recommended materials and rates. If Phytophthora root rot has been identified in a field, treat the affected area with Ridomil Gold or Alliette in September or early October. This timing is important to get the material in place in the root zone before the onset of cool wet weather (and soil) in the fall.

## **Insects**

Now is the time to check plantings for crown borers. The adults of this pest looks like a very large yellow jacket, but is actually a moth. They are active in the field in August and September laying eggs. Scout the fields for crown borer damage by looking for wilting canes. This symptom can also indicate Phytophthora root rot, so when you find a plant with a wilting cane (or two), dig up the plant and check the roots for brick red discoloration in the core of the roots (phytophthora) or the presence of a crown borer larvae in the crown. Rogue out infested crowns and eliminate wild bramble near the planting, since they will harbor more of this pest.

# **Highbush Blueberry Fall Check-List**

Source: Sonia Schloemann, UMass Extension, Massachusetts Berry Briefs, Vol. 1, No. 6, Sept. 10, 2004

#### General

Blueberry plants should be encouraged to harden off for the winter. This means no nitrogen fertilizer at this time. Flag bushes that show premature reddening of leaves compared to others of the same variety. This can be an indicator of infection with virus or other pathogens.

If you haven't done it already, make some notes on observations from this year that might be helpful in coming years (e.g., variety performance, sections of the field that did well or poorly, how well some practices worked, or didn't, etc.). Relying on memory isn't always accurate enough. Nothing can replace a detailed field history when trying to diagnose problems.

## Nutrition

Hold off on any nitrogen fertilizers. Based on leaf tissue tests and soil tests, sulfur, lime, and some fertilizers can be added now. Apply these before fall rains begin and also before adding any supplemental mulch to the plants.

## Weeds

As with other small fruit crops, now is a good time to do a weed survey and map the weed problems in your planting. This information will be very useful in tailoring your weed management plan so it is effective and not wasteful. A late fall application of Casoron (dichlobenil) for preemergent control of broadleaf weeds next spring should be made only when temperatures are below 40F, preferably just before rain or snow.

#### **Diseases**

Weak plants can easily be detected this time of year because they tend to turn red earlier than healthy bushes. Upon finding weakened bushes, try to determine the reason for weakness. Is the root system damaged? If so, is it likely from a disease infection or root damage by voles or grubs? If the roots are healthy, could a crown borer (Dogwood borer) be the culprit? Or is stunt disease the cause? Or Scorch?

Accurate diagnosis is the first step in resolving the problem and avoiding spread. Enlist the help of specialists if you have trouble determining the cause of problems. See factsheet on Blueberry Scorch at <a href="http://www.umass.edu/fruitadvisor">http://www.umass.edu/fruitadvisor</a> for help in diagnosing this disease.

#### **Insects**

The main worry now is for sharp-nosed leafhopper, which is the vector for stunt disease. If you have determined that you have bushes infected with stunt disease in your planting, an application of malathion to the infected bushes and any immediately surrounding bushes should be made to control leafhoppers *before* removing the infected bushes. Failing to do this will likely cause the spread of the disease to clean bushes, even after infected bushes have been removed.

In eastern areas of the state, growers are concerned about infestations of Winter Moth. The next issue of Berry Notes will contain more information on this alarming new pest. For now, growers should know that any moths seen flying in their plantings are likely *not* Winter Moth or Canker Worm moths. These moths do emerge and begin flight until November. Again, more on this next time.

# **Using ReTain® for Peaches Going into Storage**

I had the pleasure of sampling peaches from storage at the Eshleman Fruit Farm. The variety was

Summer Prince, and they were stored approximately 25 days. One sample was from trees sprayed with ReTain® 7 days prior to harvest. The other sample was from an untreated tree. The second sample was what I would expect from a peach stored for that period of time; it was rather dry and mealy. The peach treated with ReTain® was delicious and as juicy as the day it was picked.

The ReTain® label, which includes treatment of stone fruit (with the exception of cherries) notes enhanced storage potential. The label can be found at <a href="http://www.cdms.net/ldat/ld4CL001.pdf">http://www.cdms.net/ldat/ld4CL001.pdf</a>.

# **Peach & Nectarine Variety Trials**

Source: William Shane, Amy Iezzoni, & Mira Danilovich, Diedre Hulshof, Michigan State University

The above researchers conducted peach/nectarine evaluation programs in 2000-2003. The results are extensive and would be good sources for varietal information as you consider new plantings.

#### The 2000 results are at:

http://www.msue.msu.edu/swmrec/Publications/Annualreports/AnnRpt00/peach%20nect%20var%2000.PDF.

The 2001 results are at: <a href="http://www.msue.msu.edu/swmrec/Publications/Annualreports/2001%">http://www.msue.msu.edu/swmrec/Publications/Annualreports/2001%</a> 20Annual%20Report/fruit/peach nectarine%20variety.PDF

The 2002 results are at: <a href="http://www.msue.msu.edu/swmrec/Publications/Annualreports/ann%20rpt%2002/peach%20nect%20variety.PDF">http://www.msue.msu.edu/swmrec/Publications/Annualreports/ann%20rpt%2002/peach%20nect%20variety.PDF</a>.

The 2003 results are at: <a href="http://www.msue.msu.edu/swmrec/Publications/Annualreports/03annual%20rpt/peachnect%20variety.pdf">http://www.msue.msu.edu/swmrec/Publications/Annualreports/03annual%20rpt/peachnect%20variety.pdf</a>.

The 2004-2005 Pennsylvania Tree Fruit Production Guide has a table listing commercially grown and promising peach and nectarine cultivars for Pennsylvania. The table was developed based on peach evaluation work done by Jerry Frecon, Rutgers Cooperative Extension. This table is available at: <a href="http://tfpg.cas.psu.edu/tables/table1-22.htm">http://tfpg.cas.psu.edu/tables/table1-22.htm</a>.

# **Fruit Observations & Trap Reports**

## Insect Key

AM:

apple maggot CM: codling moth ESBM: eye-spotted budmoth LAW: lesser apple worm LPTB: 1esser peachtree borer OBLR: obliquebanded leafroller OFM: oriental fruit moth PTB: peachtree borer RBLR: redbanded leafroller SJS: San Jose scale

STLM: spotted tentiform leafminer TABM: tufted apple budmoth VLR: variegated leafroller

# Site: Waterman Lab, Columbus

Dr. Celeste Welty, OSU Extension Entomologist

Apple 0/1 to 0/9				
<b>Apple</b> 9/1 to 9/8				
Redbanded leafroller	35 up from 20			
Spotted tentiform leafminer	1945 down from 2473			
San Jose scale	14 up from 2			
Codling moth	7.0 up from 6.7			
Lesser appleworm	15 down from 19			
Tufted apple budmoth	3 up from 2			
Variegated leafroller	7 up from 8			
Obliquebanded leafroller	2 up from 0			
Apple maggot (sum of 3 traps)	35 up from 19			

# Site: Waterman Lab, Columbus

Dr. Celeste Welty, OSU Extension Entomologist

<b>Apple</b> 9/8 to 9/15		
Redbanded leafroller	21 down from 35	
Spotted tentiform leafminer	224 down from 1945	
San Jose scale	8 down from 14	

Codling moth	2.3 down from 7.0
Lesser appleworm	8 down from 15
Tufted apple budmoth	0 down from 3
Variegated leafroller	4 down from 7
Obliquebanded leafroller	2 same as last wk
Apple maggot (sum of 3 traps)	8 down from 35

# **Terminal Market Wholesale Fruit Prices September 15, 2004**

Source: Chicago <a href="http://www.ams.usda.gov/mnreports/HX">http://www.ams.usda.gov/mnreports/HX</a> FV010.txt

Detroit <a href="http://www.ams.usda.gov/mnreports/DU\_FV010.txt">http://www.ams.usda.gov/mnreports/DU\_FV010.txt</a> Pittsburgh <a href="http://www.ams.usda.gov/mnreports/PS\_FV010.txt">http://www.ams.usda.gov/mnreports/PS\_FV010.txt</a>

	Chicago	Detroit	Pittsburgh
Apples, cartons 12 3-lb film bags	IL U.S. Fancy Jonathan 21/4" up 14.00	MI U.S. ExFcy Earligold 2½" min 15-15.50 Gala 2½" min 13.50- 18.00 Ginger Gld 2¼"min 10.50-11 G. Delic 2½" min 11.50- 12 Honeycrisp 2½" min 12- 12.50 Paula Red 2½" min 13.50-14 R. Delic 2½" min 14- 14.50 NY McIntosh 2½" min 15-15.50 MI U.S. Fancy Gala 2½" 11.50-12.00 Ginger Gld 2¼" min 10.50-11 McIntosh 2½" min 12- 13.50 Paula Red 2½" min 11.50-12 2½" min 13.50-14	NY U.S. ExFcy McIntosh 2 <sup>1</sup> / <sub>4</sub> " 16.00 U.S. Comb ExFcy-Fcy McIntosh 2 <sup>1</sup> / <sub>4</sub> " up 14.00 U.S. Fancy Paula Red 2 <sup>1</sup> / <sub>2</sub> " up 13.00 WV No grade marks, no size marks Empire 14.25 Gala 16.75 Jonathan 14.25
Apples, cartons tray pack, U.S. ExFcy (unless		MI Jonamac 113s 17.00 138s 15.00	WV Comb ExFcy-Fcy G. Delic. & R. Delic 125's & 138's 16.75

noted)			
Apples, cartons cell pack		NY U.S. ExFcy Mcintosh 100s 21.00-22.00	ExFcy NY McIntosh 100s 21-22.00 Comb U.S. ExFcy- Fancy Paula Red 80s & 100s 17 U.S. Fancy Mcintosh 100s 18.00
Apples, bushel cartons loose U.S. Fancy (unless noted)	IL R. Delic 14.00	MI Gala 2¾" up 15, 2½" 12 G. Delicious 2¾" up 15.00 McIntosh 2¾" up 12.00 Cortland 2¾" up 15, 2½" 12	WV No grade, no size marks Empire 14.25 Gala 16.75
<b>Blueberries,</b> 12 4.4-oz cups/lids		MI med 22.00	MI med-lge 23.00
<b>Blueberries,</b> 12 6-oz cups/lids	MI 24.00-33.00	MI med 22.00-24.50	
<b>Blueberries,</b> 12 1-pt cups/lids		MI med 33.00-36.00	MI med-lge 35.75
Grapes, 3 8-qt baskets			NY Concord 24.75
<b>Grapes,</b> cartons 12 1-pt cont/lids		MI U.S. One Concord med 18	
Nectarines, ½ bu cartons loose, various yellow flesh varieties		MI Fantasia 2¼" up 10.00 2½" up 10.00, 2¾" up 10.00	
Peaches, 25 lb cartons loose, various yellow flesh varieties	MI 2 <sup>1</sup> / <sub>4</sub> " up 10-11.00	Pittsburgh - <b>WV</b> U.S. ExOne Redglobe 2½" up 12.75, 2¼" up 9.50, <b>NJ</b> ExOne 2¾" up 16.50, 2¼"up 14, 2" up 9.00	
Peaches, ½ bu cartons/crates U.S. ExOne various white		<b>NJ</b> 2¾" up 15.00	
Peaches, ½ bu cartons U.S. One various yellow flesh vr		MI U.S. One Redhaven 2½" up 14.50, 2¼"up 14.00-14.50	
Pears ½ bu cartons, U.S. One Magness		Pittsburgh - WV 2¾" up 11.50, 2¼"up 9.25	
<b>Prune Plums,</b> 30 lb cartons	MI Bluefire 1 <sup>1</sup> / <sub>4</sub> " up 12.00-12.50	MI U.S. One Stanley 11/4" min 14.00 - 16.00	U.S. One Stanley <b>MI</b> 1 <sup>1</sup> / <sub>4</sub> " min 14.75-15, <b>WV</b> 12.75

The intent of listing terminal market prices is to provide information available in the public domain. It is not intended for price setting, only to assist growers in evaluating the value of their crops. Producers need to remember that the prices listed are gross; consideration must be given to other marketing costs, i.e. commission, handling charge, gate fees, and possible lumper fees.

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Information presented above and where trade names are used, they are supplied with the understanding that no discrimination is intended and no endorsement by Ohio State University Extension is implied. Although every attempt is made to produce information that is complete, timely, and accurate, the pesticide user bears responsibility of consulting the pesticide label and adhering to those directions.

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