

## Ohio Fruit ICM News

Editor: Ted W. Gastier, Extension Educator, Agriculture  
Ohio State University Extension, Huron County  
180 Milan Avenue, Norwalk, OH 44857 419-668-8219  
FAX: (419) 663-4233 E-mail: [gastier.1@osu.edu](mailto:gastier.1@osu.edu)  
Volume 9, No. 34 September 8, 2005

### In This Issue

#### Calendar

Raspberry High Tunnel Open House

Making Codling Moth Mating Disruption Work in Michigan

Pre-harvest Control of Third Generation Codling Moth

FDA Reminds Consumers that Untreated Juices May Pose Health Risk

Raspberry Fall Check-List

Strawberry Fall Check-List

Blueberry Fall Check-List

2005 Update on Asian Ladybeetle for Fruit Growers

Degree Day Accumulations for Ohio Sites - September 7, 2005

Fruit Observations and Trap Reports

Terminal Market Fruit Prices

#### Calendar

September 20-22: Farm Science Review, Molly Caren Agricultural Center, London, OH.  
Details at: <http://fsr.osu.edu>.

October 14-15: Highbush Blueberry Council (USHBC) Fall Meeting, Amway Grand Plaza Hotel, 187 Monroe NW, Grand Rapids, Michigan. Call 616-885-2000 for more information.

October 16: The Ohio Fruit Growers Society's (OFGS) 2005 Cider Contest, Easton Town Center, Columbus. See Issue 33 for entry deadline and details.

October 20: Raspberry High Tunnel Open House, Cornell's East Ithaca Farm. See following article for directions and contact person.

November 15: Ohio Ag and Hort Human Resource Managers Forum, Hilliard, OH. 10:00 am - 2:30 pm. Registration and fee requested by November 8. Contact Mid American Ag and Hort Services at 614-246-8286, [maahs@ofbf.org](mailto:maahs@ofbf.org), or visit [www.midamservices.org](http://www.midamservices.org) and click on Events for registration form and details.

December 6-8, 2005: Great Lakes Fruit, Vegetable, and Farm Market EXPO, DeVos Place Convention Center, Grand Rapids, Michigan. For additional information, visit [www.glexpo.com](http://www.glexpo.com).

January 16-18, 2006: Ohio Fruit and Vegetable Congress and Ohio Direct Marketing Conference, Columbus Convention Center. Watch for further details later.

#### Raspberry High Tunnel Open House

Source: Cathy Heidenreich, Cornell University's College of Agriculture and Life Sciences

Cornell University invites you to attend a Hi Tunnel Open House to observe raspberries growing and fruiting in late October well past the time when they are normally in season. Come by Cornell's East Ithaca farm on Thursday October 20 between 1:00 and 4:00 to meet with researchers, taste fruit, and study this new technology and market opportunity.

The East Ithaca Farm is located on Maple Ave., adjacent to the Cornell Campus. Coming from Rt. 79 east, turn right onto Pine Tree Rd., go through the stop light by East Hill Plaza, and take the next left onto Maple Ave. The research farm is on the right, past the cemetery.

Coming from Rt. 13 north, take Rt. 366 towards Ithaca. Turn left onto Pine Tree Road at the flashing red light, just past Cornell Orchards. Take the next right onto Maple Ave. The farm is on the right, past the cemetery.

Coming west on 79, or south on 96 or 89, take Rt. 79 east through Ithaca and up the hill. Midway up the hill, bear left onto Rt. 366. At the first stoplight, take a soft right onto Maple Ave. (not a hard right). The farm is at the top of the hill on the left. For more information contact Cathy Heidenreich, at e-mail [mcm4@cornell.edu](mailto:mcm4@cornell.edu) or call 315-787-2367

#### Making Codling Moth Mating Disruption Work in Michigan: Adopting An Area-wide Approach to Managing Codling Moth in Michigan Apple Production

Source: David Epstein, IPM Program, Peter McGhee and Larry Gut, Entomology, MSUE Fruit Crop Advisory Team Alert, September 6, 2005

Even in a good year, codling moth (CM) is a thorn in the side of apple growers everywhere. Unfortunately, growers have seen even more in the way of reduced pack-outs due to CM damage, and load rejections due to the detection of wormy fruit in the past few years, as traditional management programs based on applications of organophosphorous (OP) insecticides fail to gain control of CM.

Resistance bioassays conducted by the Tree Fruit Entomology lab (Larry Gut, Peter McGhee, and Mike Haas) at MSU have revealed high levels of CM resistance to azinphosmethyl in most production regions, with levels similar to those reported for populations in western United States fruit orchards where CM control failures have been attributed to azinphosmethyl resistance. The development of CM resistance to

azinphosmethyl means that controlling CM into the future may require the use of some innovative management programs to stay ahead of this perennial troublemaker.

In an attempt to explore viable control options, a cooperative effort between apple producers and MSU researchers and Extension personnel to establish an areawide CM management program began in 2004 in the Fruit Ridge area, north of Grand Rapids. This is a region where moths from some of the most resistant strains were identified. An area-wide approach to CM management involves the cooperative efforts of growers with plantings adjacent to one another in deploying strategies aimed at driving down CM population densities on all of the contiguous apple acreage located within a designated area.

Area-wide management programs have been conducted in many fruit production regions around the world. California, Oregon and Washington pioneered this approach for control of the codling moth in pome fruit orchards, and South Africa and Australia have successfully implemented programs targeting Oriental fruit moth in pome and stone fruit orchards. The backbone of area-wide management programs everywhere is the deployment of pheromone mating disruption.

Codling moth mating disruption was first introduced to Michigan apple growers around 12 years ago, but has not been widely adopted. Economics is one big hurdle to its wider use. Many growers are apprehensive about using these products, because the input costs of mating disruption products are often relatively expensive. Successful mating disruption is achieved by preventing pest populations from ever reaching damaging or easily detectable levels. Thus, costly pheromone products must be purchased and applied prior to knowing how much of a problem codling moth will be in any particular season.

Another impediment is that mating disruption programs are information intensive. Regular and accurate determination of the pests density and biological activity is necessary to decide if and when supplemental controls need to be applied. This means maintaining a thorough, weekly monitoring program using pheromone-baited traps along with visual inspection for damage throughout the disrupted area.

A third concern with the adoption of mating disruption is that researchers who have been working to implement pheromone disruption as a control tool for use by growers have recognized that this control strategy works best where it is deployed over large, contiguous plantings, rather than in small plots surrounded by other orchards. This approach makes it more difficult for male moths to move to pheromone-free air and locate mates, while minimizing the movement of mated females from orchards not treated with pheromone into the pheromone treated blocks.

The combination of large contiguous apple plantings and high levels of azinphosmethyl resistance, made the Fruit Ridge area a good candidate for testing the area-wide management approach under Michigan growing conditions. The 2004 Fruit Ridge Area-wide (AW) Codling Moth Management Project comprised approximately 800 contiguous acres along Fruit Ridge Avenue in Sparta. In 2005 additional funding was obtained, and

the project expanded to twenty growers on over 2300 acres, representing a nearly three-fold increase. The 2005 AW project acreage includes an expansion of the original 2004 AW group plus 2 new groupings of neighboring apple farms, all located within a few miles of the 2004 AW.

Mating disruption products are applied by growers prior to first adult emergence in the spring. Product selection is left up to the grower and their pest management consultant, and is purchased by the individual grower. The AW project also entails incorporating other new controls for codling moth into the growers IPM program, most notably codling moth granulosis virus and the selective insecticides Calypso®, Rimon®, and Assail®, while working with growers to optimize timing and coverage of materials in their spray program. Optimal use of the virus is against young larvae before they penetrate the fruit. The best way to target young larvae is to have the virus present on the surface of the eggs when they begin to hatch. Hatching CM larvae will ingest the virus as they consume their eggshells.

The MSU project team set up a grid of over 300 pheromone traps within the 800 acre 2004 AW project and monitored codling moth catches on a weekly basis. The monitoring grid grew to 960 traps placed throughout the three AW project regions in 2005. This information is being used to evaluate the impact of the pheromone treatments, and it is provided to growers and crop consultants to help in making management decisions. Orchards are also visually inspected for the presence of CM injured fruit throughout the first and second generations in an effort to minimize the risk of incurring a major control failure.

In addition to trap monitoring, the project team deployed cardboard tree bands for evaluation of Granulosis virus treatments on CM larvae collected in the bands in 18 blocks (both AW farms and farms outside the AW for comparative measure) for first and second generation CM. Virus products were used on approximately one-third of all project acreage. Preliminary analysis of first generation larvae in bands in 2005 indicates lowered CM larval densities in blocks treated with Granulosis virus.

Growers and consultants are apprised of project results through an information kiosk that was established at the Peach Ridge Orchard Supply store in Sparta Michigan and at weekly breakfast meetings. A record of moth captures throughout the area-wide region is hung on a bulletin board at the kiosk and updated weekly. An aerial view map of the region is also provided. Orchards on the map are color coded according to the number of moths captured giving a visual representation of codling moth activity within the project area. Codling moth flight monitoring for 2005 is current, but catches in the original AW region (second year of AW disruption) have been significantly lower in all project blocks in 2005 as compared to 2004. The two regions new to the project in 2005 have similar patterns to what was seen in the original AW region during its first, 2004, season, moderate to high CM pressure with a few low pressure areas where mating disruption had been used on an individual grower basis in previous years. Much higher captures were recorded in blocks being monitored outside of the project, for comparison purposes, that were not treated with pheromone. Pre-harvest fruit injury in 2004 averaged 43% less in

the area-wide orchards compared to orchards outside of the program with no orchard sustaining injury greater than 1.5%. Pre-harvest evaluations for 2005 are on going.

The area-wide project team and growers hope that a variety of tactics and new approaches in implementation, such as area-wide cooperation among growers, will provide solutions for the ever-increasing pressure from the key insect pests of apple. The long-term goal of this area-wide effort is to bring codling moth numbers down over the next few years, and to sustain codling moth populations at very low levels through the continual use of pheromone-based mating disruption and judicious use of companion insecticide sprays. Previous area-wide programs have revealed that the overall sustainable benefit of regional mating disruption programs occurs gradually, needing 2, 3 or more years to come to fruition.

The legacy goal of this program is that growers will recognize the benefit of working cooperatively to manage codling moth and that mating disruption deployed on a regional basis is a core tactic for controlling this pest well into the future. The success of this program could lead to more cooperative pest management in the form of area-wide control of obliquebanded leafroller and oriental fruit moth. Several newly developed mating disruption dispensers target more than one species at a time by combining different pheromones into one product.

Adopting an area-wide approach to manage these pests may be one of the best ways for Michigan growers to address pest management in regions with contiguous plantings where traditional OP programs are not providing adequate control.

This project is supported through funding by various sources including the USDA, the EPA, American Farmland Trust, Gerber Products Company, Pacific Biocontrol Corporation, and Michigan State University. For more information, e-mail Peter McGhee at [mcghee@msu.edu](mailto:mcghee@msu.edu) or David Epstein at [epstei10@msu.edu](mailto:epstei10@msu.edu)

#### Pre-harvest Control of Third Generation Codling Moth

Source: David Epstein, MSU IPM Program; Carlos Garcia-Salazar, MSU Extension; John Wise and Larry Gut, MSU Entomology, MSUE Fruit Crop Advisory Team Alert, September 6, 2005

Questions persist on materials for third generation CM control, so we are re-printing the insecticide table from the CAT Alert article first printed on August 23, 2005. Important considerations for third generation codling moth (CM) control include predicted harvest dates for different cultivars and associated pre-harvest (PHI) and re-entry intervals (REI) for the different control materials (Table 1). Options for controlling CM include conventional broad-spectrum insecticides, like the organophosphate (OP) compounds, Guthion and Imidan, and a number of pyrethroid insecticides. These materials are applied primarily targeting CM egg hatch, beginning at 250 GDD post biofix.

Table 1. Insecticides for third generation CM control

Compound Trade Name	Life-stage Activity	Total Allowable product/acre/yr*	PreHarvest Interval*	Re-Entry Interval*
Guthion**	Eggs, Larvae, Adults	8 lbs	14 day	14 day
Danitol	Eggs, Larvae, Adults	42.6 oz	14 day	24 hr
Rimon	Eggs, Larvae	150 oz	14 day	12 hr
Intrepid	Eggs, Larvae	64 oz	14 day	4 hr
Imidan	Eggs, Larvae, Adults	30 lbs	7 day	24 hr
SpinTor	Eggs, Larvae	29 oz	7 day	12 hr
Assail	Eggs, Larvae, Adults	13.5 oz	7 day	12 hr
Clutch	Eggs, Larvae, Adults	6.4 oz	7 day	12 hr
Sevin	Adult, Larvae	15 lbs ai	3 day	12 hr
Granulosis virus	Larvae	Varies by product	4 hr	4 hr

\* for apples only; Gerber Products Co. restrictions may differ

\*\* 21 day PHI if more than 2 lb rate of Guthion 50W

### FDA Reminds Consumers that Untreated Juices May Pose Health Risk

Source: James R. Cranney, Jr., USApple

While juices provide many essential nutrients, the U.S. Food and Drug Administration (FDA) is reminding consumers about the dangers of drinking fruit and vegetable juices that have not been treated to kill harmful bacteria. FDA continues to receive reports of serious outbreaks of foodborne illness that have been traced to drinking untreated juices. While most peoples immune systems can usually fight off the effects of foodborne illness, children, the elderly, and people with weakened immune systems risk serious illnesses or even death from drinking untreated juices.

When fruits and vegetables are juiced, bacteria from the produce can become a part of the finished product. The juice may be contaminated unless the produce or the juice has been treated to destroy any harmful bacteria that may be present.

### Warning Label

Since 1999, FDA has required juice manufacturers to place warning information about the health risks of drinking untreated juice or cider on product containers. Only a small

portion of all fruit and vegetable juices sold in supermarkets is not treated to kill harmful bacteria. These products are required to carry the following warning label:

**WARNING:** This product has not been pasteurized and therefore, may contain harmful bacteria that can cause serious illness in children, the elderly, and persons with weakened immune systems.

FDA does not require warning labels for juices that are fresh-squeezed and sold by the glass, such as at farmers markets, at roadside stands, or in some juice bars.

#### Consumer Advice

Consumers can find pasteurized or otherwise treated products in the grocersrefrigerated sections, frozen food cases, or in nonrefrigerated shelf-stable containers, such as juice boxes, bottles, or cans.

Untreated juice is most likely to be sold in the refrigerated section of a grocery store - so look for the warning label. When unsure, FDA advises consumers to ask if a juice product is treated, especially for juices sold in refrigerated cases of grocery or health food stores or at cider mills or farm markets.

#### Foodborne Illness

Consuming dangerous foodborne bacteria will usually cause illness in one to three days after eating the contaminated food, and sickness can occur within 20 minutes or up to six weeks later. In addition, sometimes foodborne illness is confused with other types of illness. Symptoms of foodborne illness usually include:

" vomiting, diarrhea, and abdominal pain; or

" flu-like symptoms such as fever, headache, and body ache.

If foodborne illness symptoms occur, consult a doctor, who can properly diagnose the illness, identify the specific bacteria involved, and prescribe the best treatment. For more information on handling food safely, contact: The U.S. Food and Drug Administration Center for Food Safety and Applied Nutrition Food Information Line at 1-888-SAFEFOOD (toll-free), 24 hours a day. Or visit FDA's Food Safety Web site at: <http://www.cfsan.fda.gov>

#### Raspberry Fall Check-List

Sonia Schloemann, UMass Extension

Ö 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.

Ö 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.

Ö 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 40°F, preferably just before rain or snow.

Ö 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. In addition Elevate®, Switch®, 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.

Ö Insects: Now is the time to check plantings for crown borers. Adults of this pest look like very large yellowjacket, 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.

Strawberry Fall Check-List  
Sonia Schloemann, UMass Extension



Ö General: Flower bud initiation deep in the crown of the plants is happening now, determining next years' 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.

Ö 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 on 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.

Ö 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®. For more information on fall weed management, see related article in last week's issue.

Ö 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.

Ö 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.

#### Highbush Blueberry Fall Check-List

Sonia Schloemann, UMass Extension, UMass Berry Notes

Ö 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.

Ö 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.

Ö 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 that 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 40°F, preferably just before rain or snow.

Ö Diseases: Weak plants can easily be detected at 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 [www.umass.edu/fruitadvisor](http://www.umass.edu/fruitadvisor) for help diagnosing this disease.

Ö 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. More on this below.

In eastern areas of the state, growers are concerned about infestations of Winter Moth. Go to [http://www.umassgreeninfo.org/fact\\_sheets/defoliators/wm\\_id\\_man.html](http://www.umassgreeninfo.org/fact_sheets/defoliators/wm_id_man.html) for 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.

#### 2005 Update on Asian Ladybeetle for Fruit Growers

Rufus Isaacs, Michigan State University via Umass September Berry Notes

In recent years, harvesting of some fall Michigan fruit crops has been complicated by the presence of Multicolored Asian Ladybeetles (*Harmonia axyridis*). The adult beetles can damage fruit in the field, act as a contaminant of the harvest and can even bite pickers.

This growing season, the population of Asian ladybeetles is very high in soybean fields across southern Michigan, fueled by high populations of the new soybean aphid. The long, dry summer has also been good for aphids on other plants, including trees where these ladybeetles congregate. Because of this, the potential risk from Asian ladybeetles to fruit crops is high this year.

Recent research in Ohio has found that ladybeetles start searching for overwintering sites, getting into houses and fruit crops during fall weather patterns. Beetle movement from their summer habitat happens when temperatures drop quickly followed by a sunny day, typically in mid- to late September. For growers of fall fruit crops concerned about ladybeetles, watching for this kind of weather and scouting fields regularly for the first signs of the beetle can provide peace of mind about whether the beetles have started their fall movement to overwintering sites.

If crops become infested with these ladybeetles prior to harvest, grower options are restricted by the need for materials with a very short PHI. Laboratory trials conducted at MSU last year found that Evergreen EC 60-6, an MGK Co. pyrethrum insecticide with a 12 hour reentry interval provided the best activity to flush beetles out of grape clusters.

While some of the beetles eventually recovered, this type of activity might help growers remove beetles from their crop and harvest the fruit with reduced potential for contamination.

The Asian Ladybeetle Fact Sheet For Fruit Growers can be found at:  
<http://www.ipm.msu.edu/beetleFruit.htm>

#### Degree Day Accumulations for Ohio Sites - September 7, 2005

Ohio	Degree Day Accumulations Base 50° F	
Location	Actual	Normal
Akron-		
Canton	2547	2413
Cincinnati	3196	3126
Cleveland	2643	2373
Columbus	3013	2704
Dayton	2810	2786
Kingsville	2374	2202
Mansfield	2480	2392
Norwalk	2596	2363
Piketon	3019	3031
Toledo	2695	2358
Wooster	2612	2242
Youngstown	2342	2191

#### Fruit Observations and Trap Reports

Site: Waterman Lab, Columbus  
Dr. Celeste Welty, OSU Extension Entomologist  
Apple: 9/1 to 9/7/05

Redbanded leafroller	14	down from 15
Spotted tentiform leafminer	154	up from 72
Codling moth (3 trap mean)	3.7	down from 4.0
Lesser appleworm	7	up from 5
Tufted apple budmoth	13	same as last week
Variegated leafroller	4	same as last week
Obliquebanded leafroller	3	down from 5
Apple maggot (sum of 3 traps)	1.3	down from 2.3

Site: East District; Erie and Lorain Counties  
Jim Mutchler, IPM Scout/Technician

Apple: 8/30 to 9/6/05

Codling moth (3 trap mean) 1.4 down from 2.1

Oriental fruit moth 4.2 down from 4.4

Redbanded leafroller 8.1 down from 16.1

San Jose scale 2.5 up from 0.0

Lesser appleworm 6.0 down from 11.0

Apple maggot (sum of 3 traps) 0.2 down from 2.9

Beneficials found: lacewings adults, native lady beetles, brown lacewing adults

Peach: 8/30 to 9/6/05

Redbanded leafroller 5.0 down from 16.0

Oriental fruit moth 0.7 down from 1.3

Lesser peachtree borer 9.0 down from 18.3

Peachtree borer 1.0 down from 1.3

Beneficials found: brown lacewing adults, native ladybeetle

Site: West District: Huron, Ottawa, Richland, and Sandusky Counties

Lowell Kreager, IPM Scout/Technician

Apple: 8/29 to 9/5/05

Codling moth (3 trap mean) 2.0 down from 0.3

Oriental fruit moth 3.0 down from 4.0

Redbanded leafroller 11.0 down from 13.0

San Jose scale 0.0 same as last wk.

Spotted tentiform leafminer 249 down from 2074

Lesser appleworm 12.8 down from 13.2

Apple maggot (sum of 3 traps) 0.0 same as last wk.

Beneficials found: lacewing & brown lacewing adults, banded thrips, native & Asian ladybeetles

Peach: 8/29 to 9/5/05

Redbanded leafroller 40.0 down from 43.0

Oriental fruit moth 13.0 up from 7.9

Lesser peachtree borer 9.6 down from 12.0

Peachtree borer 0.0 same as last week

Beneficials found: lacewing & brown lacewing adults, native & Asian ladybeetles

Wholesale Terminal Fruit Prices for September 8, 2005

Chicago: [http://www.ams.usda.gov/mnreports/HX\\_FV010.txt](http://www.ams.usda.gov/mnreports/HX_FV010.txt)

Blueberries; market about steady . Flats 12 1-pt cups with lids MI med 30.00, flats 12 6-oz cups with lids MI med 20.00

Grapes; market about steady. Cartons 12 1-qt baskets MI U.S. One Concord 21.00

Nectarines; market about steady. 25 lb cartons loose IL U.S. One Various Yellow Flesh Varieties 2 3/8" min 16.00-16.50

Peaches market about steady; 25 lb cartons loose IL U.S. ExOne Various Yellow Flesh Varieties 2 1/2" up 18.00 U.S. One Various White Flesh Varieties 2 1/2" min 18.00 MI U.S. One Redhaven 2 1/2" up 16.50 2 1/4" up 14.00 NJ U.S. ExOne Various Yellow Flesh Varieties 2 1/2" up 19.00

Detroit: [http://www.ams.usda.gov/mnreports/DU\\_FV010.txt](http://www.ams.usda.gov/mnreports/DU_FV010.txt)

Apples; market about steady. Cartons 12 3-lb film bags MI U.S. ExFcy Royal Gala 2 1/2" min 13.50-14.00 McIntosh 2 1/2" min 16.00-16.50 Ginger Gold 2 1/2" min 14.00-14.50 Gold Supreme 2 1/2" min 12.50-13.00 few 13.50 Paula Red 2 1/2" min 12.00-13.50 some best 14.00-14.50 U.S. Fcy Ginger Gold 2 1/4" min 13.50-14.00 Paula Red 2 1/4" min 11.50-12.00, bushel cartons loose MI No Grade Marks Gala 2 3/4" up 19.50-20.00 2 1/2" up 15.50-16.50 McIntosh 2 3/4" up 15.50-16.00 Ginger Gold 2 3/4" up 13.50-14.50 Gold Supreme 2 3/4" up 14.50-15.00 Paula Red 2 3/4" up 13.50-14.00 some 14.50 2 1/2" up 11.50-12.00

Blueberries; pints higher, rest steady. Flats 12 1-pt cups with lids MI med-lge 28.00-29.00 med 28.00-30.00 few 32.00 flats 12 4.4-oz cups with lids MI med-lge 19.50-20.00 med 19.00-19.50 sml-med 19.00-19.50

Grapes; market about steady. Cartons 12 1-pt containers MI U.S. One Concord med-lge 18.00

Nectarines; market about steady. 1/2 bushel cartons loose NJ U.S. ExOne Various Yellow Flesh Varieties 2 3/4" up 21.00-22.00

Peaches; Michigan market much lower, rest about steady. 1/2 bushel cartons MI No Grade Marks Various Yellow Flesh Varieties 3" up 20.50-21.00 NJ U.S. ExOne Various Yellow Flesh Varieties 2 3/4" up 16.00-18.00 2 1/2" up 13.00-14.00 Various White Flesh Varieties 2 3/4" up 14.00 WV U.S. ExOne Various Yellow Flesh Varieties 2 3/4" up 15.00-15.50 2 1/2" up 13.00-13.50, 38 lb cartons WV U.S. Two Various Yellow Flesh Varieties no sz marked 12.00

Prune plums; market steady. 30 lb cartons MI U.S. One Stanley 1 1/4" min 18.00-19.00, WV U.S. One Stanley 1 1/4" min 17.00

Pittsburgh [http://www.ams.usda.gov/mnreports/PS\\_FV010.txt](http://www.ams.usda.gov/mnreports/PS_FV010.txt)

Apples; market about steady. Cartons tray pack PA U.S. ExFcy McIntosh 100s 21.00-24.00 Honeycrisp 88s 52.00 100s 52.00, cartons 12 3-lb film bags NY U.S. ExFcy Jonamac 2 1/4" up 18.00-18.50 2 1/4" min 18.00-18.50 PA U.S. ExFcy McIntosh 2 1/2"

min 17.00-18.00 Paula Red 2 1/2" min 15.00-16.00, bushel cartons loose WV U.S. ExFcy  
Golden Delicious 2 1/2" min 16.25 Gala 2 1/2" min 18.50

Blueberries; offerings light. Flats 12 4.4-oz cups with lids MI med-lge 18.00

Grapes; market steady. Cartons 2 8-qt baskets/cartons PA Concord med 20.00

Nectarines; market about steady. 25 lb cartons loose NJ U.S. ExOne Various Yellow  
Flesh Varieties 2 3/4" up 21.00 2 1/2"min 21.00, PA Various Yellow Flesh Varieties  
23.00

Peaches; market about steady. 25 lb cartons loose NJ U.S. ExOne Various Yellow Flesh  
Varieties 2 1/2"up 15.00-15.50, PA U.S. Fcy Various Yellow Flesh Varieties 2 1/2"min  
16.50-17.00

Prune plums; offerings light. 1/2 bushel cartons MI U.S. One Stanley 18.75-22.00