



Practical Monitoring of Insect Pests in Orchards

Dr. Greg Krawczyk, Penn State FREC Tree Fruit Entomologist

During the growing season, fruit in our orchards are continuously under pressure from multiple potential pests and diseases. The *2010-2011 Pennsylvania Tree Fruit Production Guide* (<http://agsci.psu.edu/tfpg>) describes 43 insect pest species that can potentially damage fruit. Different species cause different kinds of injuries or damage to plants, and if left unmanaged, almost each one of them could be responsible for serious losses in orchard productivity and economic trouble for growers. Wood boring insects (e.g., dogwood borer or peach tree borer), foliage destroying species (e.g., leafrollers, mites, or aphids), or pests feeding directly on fruit (e.g., codling moth, apple maggot, or plum curculio) are only a few of the most widely known examples of potential troublemakers.

In a well managed orchard, only rarely does any particular insect species become so abundant to require special control measures. Most of the time a balanced orchard system should be able to support a healthy population of beneficial insects (i.e., predators and parasitoids) to keep pest species at low, non-significant levels. Such a situation is especially true in relation to fruit pests that do not directly affect the quality of fruit. Historically, the best examples of effective biological control were achieved when the pest species fed on non-marketable parts of the plant. Even higher levels of pests such as aphids or mites will not destroy the fruit right away, and since it takes time for them to affect the quality of fruit, the natural enemies also have more time to find and effectively control them.



A different situation exists with pests that directly feed on the surface or inside the fruit. A single female moth, of either codling moth or Oriental fruit moth, is able to deposit more than one hundred eggs. Every single larvae hatched from deposited eggs, unless killed by natural causes, can be responsible for a wormy, unmarketable fruit. Therefore, proper monitoring and early pest detection systems are indispensable and very valuable tools for both commercial and enthusiast fruit growers.

The presence (or absence) of insect pest species in the orchard can be detected and monitored by a variety of methods, but the utilization of traps with an insect sex pheromone is probably the simplest and simultaneously one of the most accurate ways to monitor pests. Although there are multiple designs of traps that work best for various pests, the general principle of how the average trap functions is almost always the same. Each trap needs to have a source of pheromone (usually a rubber or plastic based lure/septa with incorporated sex pheromone), the means to capture visiting

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Growing Season Models and Alerts:

<http://frec.cas.psu.edu>

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moths (usually floor or liner coated with non-drying glue), and some kind of plastic or paper dome to protect the lure and floor.

Although multiple resources are available to help growers conduct their own monitoring of pest species on the farm, the general perception is that pest monitoring is either too difficult, too time consuming, or simply too confusing for an average person to do it properly. The following basic principles should be considered when using insect pest monitoring sex pheromone traps.

In Pennsylvania apple and pear orchards, sex pheromone-based monitoring for the most important pests should include detection of leafrollers (e.g., tufted apple bud moth (TABM) or obliquebanded leafroller (OBLR)), a complex of internal fruit feeders (e.g., Oriental fruit moth (OFM) and codling moth (CM)), and borers (e.g., dogwood borer (DWB)). Although not as crucial as for the above species, pheromone monitoring is also recommended for redbanded leafroller (RBLR), spotted tentiform leafminer, San Jose Scale, and other leafrollers.

Unfortunately, a number of pest species such as apple maggot, plum curculio, European apple sawfly, or various plant feeding bugs do not have a good pheromone based monitoring system. However, other trapping/monitoring methods using means such as visual clues or food odor can be utilized for detection of pests from this group.

In peach and nectarine orchards, the essential monitoring program should include traps for at least OFM, TABM, lesser peach tree borer (LPTB), peach tree borer (PTB), and some leafrollers.

Lures: A small amount of chemicals resembling an insect's sex pheromone is dispensed into rubber septa and will attract moths for a set period of time. In order to maintain reliable pest monitoring, the lure needs to be replaced before its attractiveness starts to deteriorate. Insect sex pheromones are species specific, and each species use a different, unique set of chemicals to attract individuals from the opposite gender.

Usually, the manufacturer provides the information for how long a lure should be active in the orchard, normally from 4 to 6 weeks. The specially formulated "long lasting" (L2) lures utilized for monitoring of codling moth and Oriental fruit moth should provide accurate estimates of CM or OFM presence for 8 to 12 weeks.

Currently, the only lure that actually attracts both male and female moths is utilized for monitoring codling moth and is called Pherocon CM/DA Combo lure. This CM DAC lure consists of both a dose of CM pheromone and pear ester kairomone, which makes it attractive to both sexes of CM. The CM DAC lure can be utilized in all apple orchards but it has proved to be the most effective lure for monitoring CM in orchards using CM mating disruption.

Liners: The floors or liners coated with non-drying glue are the mechanical catchers of the attracted moths. They need to be replaced regularly, especially if high numbers of moths are being collected regularly and/or the glue layer is no longer sufficient to capture moths. In contrast to lures, liners can be reused in traps. To do so, scrape clean the liner and apply a new coating of glue. It is very important that the reusable liners be used only in traps for the same species as they were used previously.

Traps: The lures and liners are housed and protected from adverse outside conditions by various kinds of plastic or paper domes. While traps come in a variety of shapes and sizes (e.g., wing traps, delta traps, dome traps), it is important to remember that a single trap can be used only for the monitoring of a single pest species. Various colors on the traps may also mechanically attract other insects by visual orientation, but the presence of other, non-target insect species in the trap will be mostly incidental and sporadic.

The more traps utilized per block/orchard, the better the representation of pest presence. In larger blocks, at least one trap per every 5 to 10 acres should be employed. It is important that traps within each block be placed in such locations that they will be able to provide accurate readings of moth pressure. Placing traps far away (or too close) from possible moth sources such as large bin piles or abandoned or neglected orchards may provide an inaccurate image of possible pest pressure. In orchards where only the absolute minimum trapping program is to be implemented and traps will be used only to provide information about the best timing for insecticide applications, at least two traps per species must be used per farm.

Trap placement: Pheromone traps should be placed no closer to the border of a block than on the second to third row/tree from the outside of the orchard. The optional height on the tree for trap placement is about 5 to 7 feet from above the ground for most species. Traps for codling moth have to be placed in the upper fourth of the tree height (the higher the better). For this higher placement, traps can be attached to bamboo poles and elevated into the upper part of the tree. All traps should be placed within a tree canopy, not on the outside of the tree. To make it easier for the person who will monitor traps during the season, traps for different pest species (trap station) can be located on adjacent trees. It also may be helpful if the trees and tree rows with the traps are marked with contrasting flagging tape.

Based on the biology of the monitored pest, pheromone traps should be deployed in the orchard at various times but always before the beginning of the first generation flight. For Pennsylvania orchards, the general recommendation for placing traps in orchards are as follow: redbanded leafroller – late March; spotted tentiform leafminer – late March; Oriental fruit moth – first week of April (before the bloom of peaches); codling moth, tufted apple bud moth, and lesser peach tree borer – late April (beginning of bloom on apples); obliquebanded leafroller, dogwood borer, and peach tree borer – mid May (within two weeks after apple bloom); apple maggot (red sphere or yellow sticky board mechanical traps) – early to mid June.

Reference for TRAP placement and LURE exchanges

All traps to be checked at a weekly interval

INSECT	LURE TYPE	LURE EXCHANGE	TRAP PLACEMENT
OFM	OFM LL/L2 <i>long lasting lure</i>	every 10 weeks	Before peach bloom; Early April
	OFM <i>Regular lure</i>	every 4 weeks	
CM	CM LL/L2 <i>long lasting lure</i>	every 10 weeks	Beginning apple bloom; Upper 1/4 of canopy
	CMDAC	every 8 weeks	
	CM <i>Regular lure</i>	every 4 weeks	
TABM	TABM <i>regular lure</i>	every 4 weeks	Beginning apple bloom
OBLR	OBLR <i>regular lure</i>	every 4 weeks	2 weeks post apple bloom; mid/late-May
AM	Yellow sticky or red sphere	Clean trap weekly, replace attractant as needed	First week of June

Penn State Tree Fruit Extension Entomology Program

continued from page 2, Monitoring

With the yearly estimated price of a monitoring system for one species (two traps, 10 lures, 10 liners) averaging around \$40 to \$70 (without labor), the traps should pay for themselves in no time. Elimination of one unnecessary insecticide application will more than pay back all costs associated with the seasonal price of monitoring. And more important, a vigilant monitoring system should help growers to avoid problems with an unexpected occurrence of pests in the orchard. Even if, as the result of pest monitoring, an additional insecticide application will be necessary to manage a detected problem, dealing with the infestation before actual fruit damage has occurred seems a much better approach than dealing with injured fruit at harvest.

Traps baited with insect sex pheromones are an excellent tool for moth monitoring but will not provide pest control. Sex pheromones used to attract insects into the trap are the composition of chemicals that mimic the natural molecules actually released by one gender moths to attract the opposite sex individuals. Therefore, only one sex of moths (usually males) is attracted to the traps. In our specific orchard ecosystem, traps are competing with the female moths to attract male moths, but since normally there are a lot more wild moths than traps, there is still a strong possibility that mating will occur anyway, and female moths will still be able to deposit viable eggs.

The names and contact information of various trap and pheromone suppliers are listed in the *2010-2011 Pennsylvania Tree Fruit Production Guide* on page 83 and are also available at the TFPG web version at: <http://agsci.psu.edu/tfpg/part2/AGRS045-02-01.pdf/view>. If you need more detailed information about insect monitoring, please contact me at: gxxk13@psu.edu.

Insect Bytes

Drs. Greg Krawczyk and Larry Hull, Penn State FREC Entomologists

Early Spring Pear Psylla Control

According to observations in our Penn State FREC pear research plots, pear psylla (PP) adults have been active since mid-March and the number of eggs observed on twigs is significantly higher this year than observed at the same time during the 2009 season (LAH observations). Since no new insecticide products active against pear psylla (PP) were added to our assortment during the past year, in general this year's **recommendations for PP control** are similar to our suggestions from previous years. In the early spring, applications of oil and pyrethroids still remain the best (and probably the most economical) choices. In orchards with a history of pear psylla problems the first sprays should include oil in order to suppress egg deposition and an adulticide to eliminate overwintering adults. Depending on when you start your control program, use the following oil rates: 3% oil at dormant bud, 2% oil at budburst, and 1% up to white bud. You can make two applications of oil (plus pyrethroid), or replace the second application of oil with an application of Delegate at the green cluster bud to white bud stage. In our research programs, an application of Delegate at the rate of 6-7 oz/acre at about the green cluster bud or white bud stage has provided good control of pear psylla. At least 0.5-1.0 gal of oil should be added to the Delegate. We do not recommend more than a single application of Delegate before bloom on pears. Thorough coverage is required for good control of psylla during each application. Another option for PP control before bloom includes the use of Surround (multiple applications). It is crucial for effective PP control that each application of PP materials provide excellent coverage of trees.

Apple Bud Stages and Associated Critical Spring Temperatures (from <http://web1.msue.msu.edu/vanburen/crittemp.htm>)

Apple Bud Stage									
	Bud stages and critical temperatures for other fruit are also available at http://web1.msue.msu.edu/vanburen/crittemp.htm								
	Silver tip	Green Tip	½ inch green	Tight Cluster	First Pink	Full Pink	First Bloom	Full Bloom	Post Bloom
°F	Old temp—16 10% kill— 15 90% kill— 2	16 18 10	22 23 15	27 27 21	27 28 24	28 28 25	28 28 25	29 28 25	29 28 25

Rosy Apple Aphid Hatch

Rosy apple aphid (RAA) egg hatch occurs between silver tip and half-inch green on apples. The young, as soon as they hatch, seek out the opening buds of apple trees, seeming to prefer the fruit buds. The first young develop into stem mothers when apple trees are coming into the early pink stage. The production of young usually begins 2 or 3 days after the last molt and continues without interruption for over a month. A single female produces an average of about 185 live young. While searching for RAA please make sure that other aphids such as apple grain aphid (AGA) are not mistakenly identified as RAA. The AGA hatch about 7 to 10 days before RAA, just around silver tip on apples. The AGA nymphs are dark green with a light colored stripe running down the back, with antennae less than half the body in length and very short cornicles.

Optimum timing for early season control of rosy apple aphid is at the green tip to half-inch green stage. Two close-interval alternate row middle sprays or one complete spray should be applied by that time. When using Asana XL, Battalion, Baythroid, chlorpyrifos, Danitol, Decis, Esteem, permethrin, Proaxis, or Warrior in alternate row middle sprays, the first spray should be applied at green tip and the alternate row middle spray no later than half-inch green tissue. Only a gallon or less of oil per acre is needed when using these products for aphid control. However, this low rate of oil will not control European red mite and also please note that in most situations oil alone will not adequately prevent RAA injury.

Good Spray Coverage Important for San Jose Scale Control

San Jose scale overwinters as immature blackcaps on the trunks and scaffolds of the tree. The nymphs remain dormant under their waxy covering until the sap begins to flow in the spring, and they continue to feed until bloom. Scales are especially difficult to control on large trees with rough bark. Growers who found fruit infested with scale last fall or who noticed scale infestations during winter pruning, should apply the appropriate measures during this time of the season. To provide successful control of nymphs, an application of oil with an insecticide (i.e., chlorpyrifos, Esteem) is necessary at the dormant or delayed dormant period. Similarly to early season mite or pear psylla control, the secret to good scale control is good coverage. Growers should use a minimum of 100 GPA or more depending on the size of their trees.

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 (March 31) mentioned in the table are based on the weather forecast.

Site/Date	3/03	3/10	3/17	3/24	3/31
Biglerville, 2010	16	37	73	155	182
Biglerville, 2009	38	83	101	124	157
Biglerville, 2008	59	81	104	120	137
Biglerville, 2007	70	73	116	146	213
Biglerville, 2006	80	99	155	156	198
Biglerville, 2005	57	69	70	83	106
Rock Spring, 2010	6	18	48	115	130
Rock Spring, 2009	19	61	78	99	116
Rock Spring, 2008	36	42	53	55	61
Rock Spring, 2007	35	36	64	83	145
Rock Spring, 2006	51	61	99	99	131
Rock Spring, 2005	29	34	34	40	59



Disease Situation

Drs. Henry Ngugi and Noemi Halbrendt, Penn State FREC Plant Pathologists

Apple Scab Primary Infections Three Weeks Early

The counts of mature ascospores of the apple scab fungus were high for March, being more typical of those observed by mid-April in most years. These findings indicate that scab primary infections are three weeks early in Southeastern Pennsylvania. Last week, we recommended that growers apply dormant copper sprays. However, we suspect that not everyone was able to get all their apple blocks covered. The present rains have certainly not helped. Starting Wednesday, temperatures are predicted to exceed 60°F for the remainder of the week. Our early cultivars (e.g., Gala) are in tight cluster while most others are past half-inch green. With temperatures at about 50°F the scab ascospores can still cause infection although disease development is slow. Above 65°F, as we expect from Wednesday, March 31, infection will progress faster and fewer wetness hours are required. Given the present rains, it is fair to assume hours of wetness requirements will be met in our region throughout this week. For more information on the apple scab life cycle and management strategies, please visit <http://agsci.psu.edu/tfpg/part2/AGRS045-02-02.pdf/view>.

Copper for Bacterial Spot Control on Stone Fruit

Stone fruit growers should apply dormant copper sprays for bacterial spot control up to the pink bud stage of bloom development.

Cooperators Needed for Surface Water Microbial Survey

Dr. Luke LaBorde, Penn State Department of Food Science

This summer the Penn State Department of Food Science would like to begin a microbial survey of Pennsylvania surface water used on fruit and vegetable crops, and we need your help. We are looking for growers who apply surface water to their crops for irrigation or for application of pesticides, nutrients, growth regulators, post harvest washing or for any other purpose. Each grower will receive the complete results at no cost. Names of growers will not be made public. If you are interested in participating in this study, please contact Luke LaBorde: Tele: 814-863-2298; Email: lf15@psu.edu; Penn State University Department of Food Science, 202 Food Science Building, University Park, PA 16802.

Invasive Fruit Fly on Soft Fruit —Spotted Wing Drosophila

Kathy Demchak, Penn State Department of Horticulture

With thanks to Greg Krawczyk for helpful input into this article



Drosophila suzukii male

Photography credit: G. Arakelian, Los Angeles County Agricultural Commissioner/Weights and Measures Department

Some of you have been hearing and reading about the spotted wing drosophila, most recently in the Spring 2010 newsletter from Nourse Farms. This has prompted some calls and caused some concern, so I'd like to follow up with some points.

First, a brief recap: Spotted wing drosophila (*Drosophila suzukii*) is an invasive fruit fly, previously called the "cherry vinegar fruit fly". It has been a pest in Japan since 1916, was first identified as a pest in California in 2008, and since has become a large problem along the West Coast from California to British Columbia. This pest was found in Florida in 2009. It can be a problem on any soft fruit, and has been problematic on strawberries, raspberries, cherries, blueberries, nectarines, etc. It is different from other fruit flies in that it lays its eggs under the skin of the fruit. Larvae can hatch very quickly – in as little as a day or two, depending on the temperature. The problem is similar to that of sap beetles – the direct damage to fruit is a problem, but the bigger problem is that the harvested fruit can have larvae in it.

Before we all go into a panic, there are some things I'd like to point out, and what we don't know is just as important as what we do know. First, there is concern that with fruit being shipped all over the country, the spread of spotted wing drosophila could be hastened. This is a valid concern – but at the same time, it also appears that the larvae and eggs can be killed by temperatures close to freezing for 4 days (at least for strains in Japan), and fruit shipped at cold temperatures may be less of a concern than fruit shipped at warmer temperatures. Also, while it's likely that this pest will show up here at some point (and it may already be here for all we know – we just may not have noticed yet), how well it will survive in our environment is not known. Climate could also play a role, as might man-made overwintering sites and beneficial predators as well – at least one species of parasitic wasp is reported to parasitize the larvae in Japan.

Now, what should you do, either as a precaution, or in case the "worst case scenario" is the one that happens? For now, keep using all the cultural controls you normally would to keep your plantings as clean as possible – as if you thought sap beetles could be a problem. Keep fruit as well-picked as possible, and destroy or bury unused fruit - don't just throw it in piles. Minimize the amount of old fruit that accumulates in the planting – any fruit that is left behind is a good place for problems to multiply. As far as chemical control goes, many insecticides will kill this pest, though not labeled specifically for spotted wing drosophila. If you spray anyway for other insects such as tarnished plant bugs, you may be affecting spotted wing drosophila as well. A big difference between various insecticides is how long they last, and unfortunately, the ones that are safe to use during harvest because they break down quickly don't have very long residual activity on the fruit flies either.

If you want to try to figure out if any of the fruit flies you have around are spotted wing drosophila, they are about the size of many other fruit flies, are tan or light brown, and have red eyes. The males have a spot at the tip of each wing – that last detail is what distinguishes them from other fruit flies. You probably won't be able to tell the females of these from any other fruit flies, but it's not necessary to know if you are looking at a male or female – you just need to know if any of the fruit flies' wings have a spot at the tip. If you want to make a trap, they are attracted to vinegar and ripe bananas, but you should place the trap away from your planting or market place, since you want to attract any fruit flies away from your planting, not to it. Also be aware that you will attract more than just the spotted wing drosophila.

Here are some Web sites with information on the spotted wing drosophila and additional details on the above topics:

U.C. Davis: <http://www.ipm.ucdavis.edu/EXOTIC/drosophila.html>; Oregon State University: <http://swd.hort.oregonstate.edu/documents>

The Florida Department of Agriculture and Consumer Services: http://www.doacs.state.fl.us/pi/enpp/ento/drosophila_suzukii.html

The European and Mediterranean Plant Protection Organization: http://www.eppo.org/QUARANTINE/Alert_List/insects/

Resources for Fruit Growers

Dr. Katie Ellis, Penn State Extension Specialty Crop Innovations Educator

Updated 2010 Spray Record Spreadsheet

The tree fruit spray materials record-keeping spreadsheet has been updated for 2010. Additional information is included for numerous products, including the maximum number of applications allowed, minimum number of days between applications, rate per acre, and IRAC and HRAC classes for herbicides and insecticides. The Excel file will be available at <http://adams.extension.psu.edu> after April 1.

Check the FREC Web Site for Pest Alerts

If you subscribe to the *Fruit Times* email list, you received a scab spore alert on March 25. For high-risk pest updates, we will be using the email list to warn of pest outbreaks or environmental conditions favorable to disease development. To subscribe to the *Fruit Times* listserv, email Fruit-Times-L-subscribe-request@lists.psu.edu (no subject line or message required). For more pest risk information throughout the growing season, be sure to continue checking the FREC Web site (<http://frec.cas.psu.edu/>) for weekly Insect Bytes updates, disease infection periods, and insect trap count data from the Penn State Fruit Research and Extension Center in Biglerville.

*Penn State Extension Announces
2010 Spring Orchard Meetings*



Schedule and pesticide license certification information available from contact person in each region.



State-Wide Spring Meetings for Fruit Growers

Thursday, April 22 —Franklin/Adams Counties at PSU-Fruit Research & Extension Center;
This first meeting is an open forum, so bring your questions for the fruit specialists!
Contact Tara Baugher, tab36@psu.edu

Tuesday, May 4 —Lancaster/York Counties; Contact Tim Elkner, tee2@psu.edu

Wednesday, May 5 —Adams County; Contact Tara Baugher, tab36@psu.edu

Thursday, May 6 —Franklin County; Contact Tara Baugher, tab36@psu.edu

Wednesday, May 12 —Southwest Region; Contact Bob Pollock, rcp3@psu.edu

Thursday, May 13 —Erie County; Contact Andy Muza, ajm4@psu.edu

Tuesday, May 18 —Susquehanna, Snyder County; Contact John Esslinger, cje2@psu.edu

Tuesday, May 25 —Appalachian Fruit Growers, Bedford County; Contact Tom Ford, tgf2@psu.edu

Thursday, May 27 —Southeast Region, Leesport; Contact Andy Beck, awb123@psu.edu

Thursday, June 3 —Franklin County/Western Maryland; Contact Tara Baugher, tab36@psu.edu

Program Highlights

- *Integrated Orchard Management Updates*
- *Targeted Crop Load Management*
- *Tours of Innovative Specialty Crop Enterprises*

This publication is available in alternative media upon request.

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Locations for Southeast Pennsylvania Orchard Meetings



Thursday, April 22, 5:30 to 7:30 pm—Penn State Fruit Research and Extension Center—this first meeting of the season is an open forum, so bring your questions for the fruit specialists! A light meal will be provided (290 University Dr., Biglerville, PA; <http://frec.cas.psu.edu/>)

Drs. Henry Ngugi, Greg Krawczyk, Larry Hull, Jim Schupp, John Halbrecht (2 Core credits)

Wednesday, May 5, 3:30 to 5:30 pm—ACN Orchards

(Meet at orchard on Cranberry Rd (near intersections with Funt Rd. and Old Carlisle Rd, Aspers, PA; <http://www.acnursery.com/>) (1 Core credit; 1 Category credit)

Orchard tour featuring mature high density orchard systems, young Honeycrisp, and GPS-guided planting—*Hosted by the Baugher family*

Seasonal IPM Updates on Insect Control—*Dr. Larry Hull*

Targeting Crop Load with Your Thinning Program—*Dr. Jim Schupp*

Thursday, May 6, 6:00 to 8:00 pm—Tracey's Orchard (12483 Hollowell Church Road, Greencastle, PA)

Orchard tour featuring young plantings of new varieties and successful growing and marketing strategies—*Hosted by the Tracey family*

Seasonal IPM Updates on Insect Control—*Dr. Greg Krawczyk*

Pesticide Safety —*Abbie Clark, PDA* (1 Core credit; 1 Category credit)

Thursday, June 3, 3:30 to 5:30 pm—Allenberg Orchards (23319 Barth Spring Lane, Smithsburg, MD) (2 category credits)

Orchard tour featuring low profile quad V peaches, diversified production for metropolitan farm markets, Apogee for fire blight control—*Hosted by Henry Allenberg*

Current Disease Situation and a Look Ahead—*Dr. Alan Biggs*

Orchard Monitoring and Insect Pest Management—*Greg Krawczyk*

The Latest on Strawberry Cultivars—*Joe Fiola*

Horticultural Best Management Practices—*Dr. Rob Crassweller*

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Upcoming Events

Wednesday, March 31—Good Agricultural Practices Meeting hosted by Rice Fruit Company

Contact Lee Showalter, lee.showalter@ricefruit.com

Thursday, April 22 —Franklin/Adams Counties at PSU -Fruit Research & Extension Center

This first meeting is an open forum, so bring your questions for the fruit specialists!

Contact Tara Baugher, tab36@psu.edu

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Contact Bob Pollock, rcp3@psu.edu

Thursday, May 13 —Erie County

Contact Andy Muza, ajm4@psu.edu

Free and Safe Disposal of Old Pesticide Materials

CHEMSWEEP is back! The Pennsylvania Department of Agriculture has reinstated the CHEMSWEEP waste pesticide disposal program to help agricultural producers safely dispose of cancelled, suspended, or unwanted pesticide products.

Growers, pesticide applicators, and licensed pesticide businesses in selected Pennsylvania counties are eligible for CHEMSWEEP each year. In 2010, these counties include Allegheny, Beaver, Bedford, Berks, Blair, Carbon, Centre, Chester, Columbia, Delaware, Elk, Jefferson, Lancaster, Montgomery, Montour, Northumberland, Snyder, Sullivan, Union, Washington, and York.

Collections will start this summer, and the program covers the disposal cost of chemicals up to 2,000 lbs. To participate, download a registration form available at <http://www.pested.psu.edu/pdaprog/chemsweep>. Registration deadline is June 15, 2010.

If you have any questions about the CHEMSWEEP program, call your nearest Pennsylvania Department of Agriculture Regional Office. (Dr. Katie Ellis, Penn State Extension Specialty Crop Innovations Educator)

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<http://fruittimes.cas.psu.edu>

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