

PLANT DISEASE AND INSECT ADVISORY



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Vol. 1, No. 8

Website: <http://plants.okstate.edu/Pddl/advisory.htm>

Apr 9, 2002

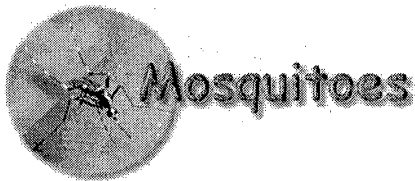
Alfalfa weevil populations continue to flourish Phil Mulder, Extension Entomologist

Alfalfa weevil populations continue to be a threat to the alfalfa crop. Early attempts to control weevil larvae have resulted in several cases of retreatment, simply because the populations were too great to overcome with one application. Some applicators and growers are complaining that the chemical they selected did not provide adequate control; however, several factors could contribute to lack of control. These factors include; heavy weevil populations, delayed /prolonged hatching of eggs, lack of growth of the alfalfa, too little liquid at application, etc. While the newer pyrethroid chemistries have shown a lot of promise for controlling weevils in alfalfa, most of the evaluations at Oklahoma State University have been with ground-rig applications using 20 gallons per acre of insecticide mixture. Under the type of conditions we have this year, and the slow growth of the alfalfa, controlling weevils is going to continue to be a challenge. With increased plant growth and foliage perhaps subsequent applications will be sufficient. Be patient with this type of production year, since these are still the highest weevil populations we have seen in four years. It is doubtful that many growers, particularly south of I-40 will get by with just one application for this pest. In addition, if conditions remain dry and mild, aphid populations will begin to flourish. While many of the pyrethroids perform admirably on alfalfa weevil they do lack some "kick" when aphids are the concern. This is particularly true for the spotted alfalfa aphid. A suggested strategy for this problem would be to tank-mix a pyrethroid with Lorsban. A pint of Lorsban 4E (½ lb. a.i./acre) should be more than enough, in combination with the pyrethroid, to control both aphids and weevils. Regardless of application method, growers should be encouraged to use a minimum of 2 gallons of liquid per acre by air and 10 -15 gallons per acre by ground.



New Mosquito Website

Richard Grantham, Director PDIDL



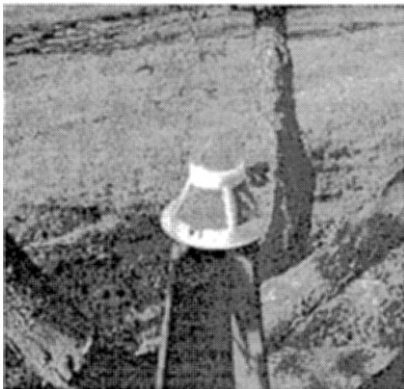
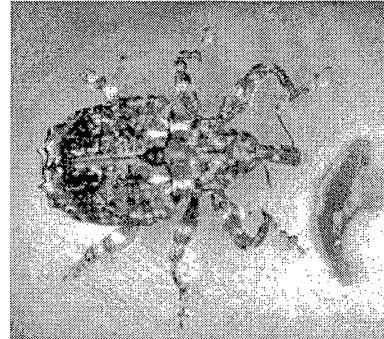
Did you know that Oklahoma is home to more than 60 species of mosquitoes? Did you know only female mosquitoes bite? The Department of Entomology and Plant Pathology now has a new website devoted to mosquitoes. Information on biology, general life cycle, methods of control, and chemicals approved for use in Oklahoma can be

found on the site. We have also included links to sites containing information on West Nile Virus which is transmitted by mosquitoes. Please check back often as new information, pictures, and links are posted.

Critical Timing For Insect Control In Peaches

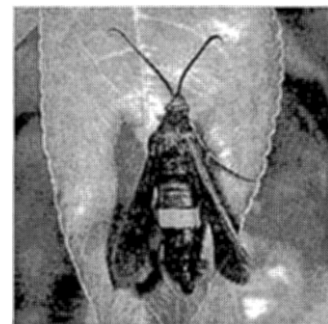
Phil Mulder, Extension Entomologist

The most critical time for controlling the two major pests of peaches in Oklahoma is upon us. Plum curculio populations typically peak in Oklahoma sometime around petal fall to first cover. This typically takes place from mid-April to mid May depending on location, variety and weather. Growers who are not routinely trapping and scouting for infestations should begin treatments sometime after petal fall, but timing is going to be difficult to pin down without trapping data. For growers that wish to trap for curculio, pyramid traps should be placed next to the trunk and monitored every other day. When the number of plum curculio reaches 0.06-0.1 weevils per trap per day, treatment is required to prevent significant damage. Additional information on trap design, utilization and weevil biology can be obtained in OSU Fact Sheet No. 7190 "Monitoring adult weevil populations in pecan and fruit trees in Oklahoma."



We have found that using the pyramid traps works best for our smaller peach trees as opposed to the screen (circle) traps for larger trees. In addition, early-season trapping should be conducted near the edge of the orchard on peach trees nearest to woodlot areas or other potential overwintering sites. During the majority of the growing season, traps can be placed anywhere in the orchard, but still next to a tree trunk. Careful monitoring of traps will help growers determine the optimal time to treat and give them some indication of how serious plum curculio are in their individual orchards. Don't rely on what a neighbor may be catching to make treatment decisions, since insect numbers in individual orchards will vary just simply across a single road or pasture.

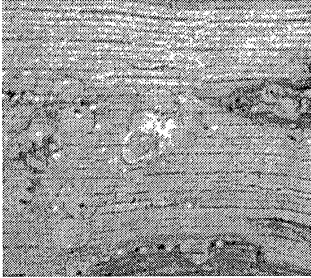
The early part of the season (May) is also a great time to control peachtree borer and lesser peachtree borer problems. Treatment with Lorsban, one time in mid-May should provide adequate management of borer problems. If borers have been a serious problem then subsequent treatments with Asana can also provide some control. This treatment is often more useful in September for lesser peachtree borer; however, it can also be used to combat peachtree borer. For growers putting in new trees, consider a preplant application for nonbearing trees at the equivalent application rate of 3 quarts/100 gallons of water. Dip trees several inches above the grafting bud scar and plant immediately.



Grape Insects To Watch For Early In The Season

Phil Mulder, Extension Entomologist

Grape Scale - Most growers should be finishing up their pruning about this time and should have



checked the canes for evidence of scale insects on the old canes. The scale-like bumps that appear on the cane are evidence of last years problem and of those things yet to come. During the pruning operation, growers should be encouraged to flag or mark scale-infested canes and even prune out heavily infested areas. Grape scales overwinter on the cane and under loose bark. Crawlers from the first generation become evident in May. These insects can be monitored using double-sticky tape on infested canes. In addition, if old scale is evident, growers can monitor the old scale for activity by the young

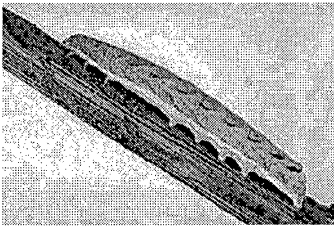
or crawler stage. Simply use a sewing pin to gently lift the old scale up and glance underneath. This should be conducted about twice per week until nymphs are seen. If crawler activity has begun then apply a delayed dormant spray of superior oil to the canes. Just before the buds begin to show green is when treatment for this pest and European red mite can take place.

Grape Flea Beetle - Another pest of grapes during the early growing season is the grape flea



beetle. This insect is a metallic blue green color and is only about $\frac{1}{4}$ of an inch in length. The adults eat holes in buds during the daylight hours while the larvae will feed on the foliage and flower clusters. Generally, the larvae are not the greatest concern because of management of grape berry moth after post bloom, but tender buds cannot sustain much damage from the adult stage of this insect.

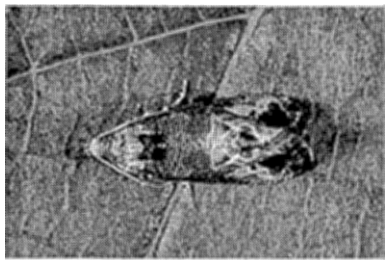
Climbing Cutworms - Several species of cutworms are common in Oklahoma and most of them



are not significant pests of grapes; however, some significant damage on early bud development can occur if a large population of cutworms is evident. Climbing cutworms are a primary problem in the early season (through May) and generally subside when other primary pests are managed well. Cutworms can become very large caterpillars (up to $1\frac{1}{2}$ - 2 inches in length) that are sometimes difficult to control once they obtain a larger size.

Control of Flea beetles and cutworms - Problems with these insects early in the season can often coincide. Simple inspection during bud swell can help identify a problem. If bud damage has been evident in the past in certain areas of the vineyard inspect those areas first. Check 100 vines for any evidence of insects or bud damage and record the number of hits. Insecticide treatment should be limited to those sites where more than 1% of the new buds are damaged. Sevin insecticide is a common treatment for both of these problems.

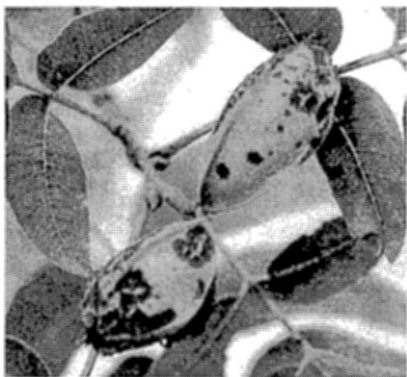
Grape berry moth (GBM) - Now is the time to begin monitoring for grape berry moth activity. High risk areas (vineyard sites with woodlots around more than 25% of the perimeter) should be



the first sites monitored. Three pheromone traps can be used at those sites to indicate the arrival of the first moths. Traps should be placed in the adjacent wooded area, particularly where native grapes are present. First generation larvae will web the fruit together in May and June and 2nd through 4th generation larvae will tunnel in several berries. When one moth is captured in traps, then growers can start accumulating degree days (base 55° F). After 400 degree days, check 100 clusters in the edge row for larval activity. By mid-May the three traps can be moved inside the orchard on the top wire. From 1200 degree days on check 50 clusters along the edge and 50 clusters about 10 rows in from the edge. If more than 1% of the clusters are infested spray the perimeter from 400-700 degree days. Applications to control 2nd and 3rd generation GBM can be made across the entire vineyard at 1200-1600 degree days and 2400-2700 degree days, respectively. Synthetic insecticides such as Guthion, Imidan and Sevin may be used; however, safer, biological choices are available that do an effective job. These latter materials include formulations of *Bacillus thuringiensis* sold under the trade names of Agree®, Dipel® or Javelin®. Mating disruption of GBM using Isomate-GBM pheromone has resulted in successful suppression of this insect for up to 90 days in some warm, southern states; however, this technology has not been thoroughly tested in Oklahoma. In addition, this latter strategy is likely very costly and may not fit in an area that has a relatively new industry and probably very little pressure from insect pests. Only time will tell how useful this strategy may turn out to be for Oklahoma grape growers.

Get the Maximum Return on Pecan Scab Fungicide Costs

Sharon L. von Broembsen, Extension Plant Pathologist



Low profit margins for native pecans definitely force growers to think carefully about what investments are essential to achieve a profit. Native pecan groves which have good air movement around trees and from which heavily scabbing trees have been eliminated should require minimal inputs to control pecan scab. Native pecan growers need only think about applying fungicides once nut set indicates that there will be a crop worth protecting. This evaluation can be done at the same time that scouting for pecan nut casebearer takes place. If active scab lesions are observed on foliage and a moderate to good crop is indicated, a fungicide should be put on at this time. Scab lesions which occur on young nut shucks during the first 5-6 weeks after nut set cause the greatest economic loss. This first application can be combined with a pecan nut casebearer treatment to minimize application costs. A second fungicide application should be made 2 ½ to 3 weeks after the first one. These two applications will protect the crop at its most vulnerable stage and will be sufficient to get good scab control in most seasons. In some seasons sufficient wet weather may occur in July to consider a third application. Growers can consult the OSU Pecan Scab Model (see web link below) to see if disease conducive weather is occurring and a third application is warranted.



For moderately to highly susceptible paper shell cultivars, a more intensive program will be needed to assure that crop loss and quality degradation are not significant and that the overall investment in the crop is protected. Although fungicide application costs are more easily recovered from higher selling prices received for paper shells, keeping fungicide costs low will result in more profit. The most economical way to apply fungicides to control pecan scab on these cultivars is to use the web-based OSU Pecan Scab Model. When the model is used, fungicides will be applied every time they are needed to prevent crop losses and will only be applied when needed. Therefore, the nut crop is protected and the cost of unnecessary fungicide applications is eliminated. The model can be reached by a link from the Oklahoma Pecan Management Home Page located at <http://www.hortla.okstate.edu/pecan/>. Information on how the model works, weather data for your location, the susceptibility of various cultivars, and fungicide application rates are all given at the model site. If you need help getting started, email me at svonbro@okstate.edu.

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Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Samuel E. Curl, Director of Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Dean of Agricultural Sciences and Natural Resources.