"WHAT'S HAPPENING?"
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NOTICE OF RECEIPT OF REQUESTS TO TERMINATE USES AND VOLUNTARILY CANCEL PESTICIDE REGISTRATIONS OF GUTHION, COMMONLY KNOWN AS AZINOPHOS-METHYL

by Darrell Hensley

The Environmental Protection Agency (EPA) is issuing a notice of receipt of requests by the registrants to amend their registrations to terminate certain uses of products containing the pesticide azinphos-methyl (AZM) and to cancel their registrations by September 30, 2012. The requests would terminate AZM use on Brussels sprouts and nursery stock not sooner than the later of September 30, 2007 or 90 days from the date EPA approves draft labeling submitted by the registrants; terminate AZM use on walnuts, almonds, and pistachios by October 30, 2009; and cancel all AZM products by September 30, 2012. The cancellation requests would serve to terminate the five uses of AZM (apples, pears, cherries, blueberries and parsley) remaining in 2012. The registrants have conditioned these requests on EPA making certain determinations regarding AZM, including a determination, by not later than November 11, 2011, regarding the availability of AZM alternatives. EPA intends to grant these requests at the close of the comment period for this announcement unless the Agency receives substantive comments within the comment period that would merit its further review of the requests. Any sale, distribution, or use of products listed in this notice will be permitted only if such sale, distribution, or use is consistent with the terms as described in the final order acting upon these requests**.**

INSECT AND MITE PESTS OF MUMS

by Frank Hale

Since mum production starts in the summer, there are many types of insects that can readily attack mums in the summer and fall. Moths of caterpillars such as the black cutworm, corn earworm, and European corn borer fly at night. They are attracted to light and lay there eggs on or around the plants. Reduce the light around the greenhouse or outdoor growing areas during peak moth activity periods. Sodium lamps when used for lighting are less attractive to flying insects at night. European corn borers can tunnel into the plant and weaken stems and branches. Black cutworms can feed at the base of the plant, causing the main stem to break. Corn earworms can feed on flower buds and even opening flowers. Some growers use preventative sprays starting in July while others scout weekly and spray at the first sign of caterpillars and their feeding damage.

Hot, dry, dusty conditions should tell you to be on the lookout for twospotted spider mite infestations. They can go through a complete life cycle in as little as eight days during the heat of the summer. Look on the top of the leaf for tiny yellow (chlorotic) spots that look like stippling. This usually shows up first along either side of the midvein of the leaf but can quickly spread. Turn over the leaves and use a hand lens to look for the mites of all life stages including the round clear to white eggs and old shed skins and even some webbing. It is best to start any chemical control early before mite populations build and damage occurs.

Whiteflies can not reproduce as quickly as spider mites but they can sneak up on you if you are not scouting regularly. Whitefly eggs are often laid in a semicircle and are difficult to detect until they darken with maturity so that they look like tiny flakes of black pepper on the leaf. The immature whiteflies produce sticky honeydew. Once they hatch, the immature whiteflies are very small and clear. They appear as inconspicuous scale-like bumps that blend into the leaf color. The adult whiteflies are usually noticed first as they fly about the plant when disturbed. Whiteflies can move into the area from nearby vegetable crops such as tomatoes. Also, always inspect new plants that come into the greenhouse with a hand lens for the eggs and immature whiteflies. Infested plants should be either returned or treated immediately.

Thrips can fly to succulent greenhouse and nursery crops from nearby crops that are maturing. In these situations, thousands of thrips can move into the area and adequate control is very difficult if not impossible. Western flower thrips are vectors of tomato spotted wilt virus and impatiens necrotic spot virus. In general, it is good to use gravel around the greenhouse and for outdoor container growing areas. Flowering weeds should be eliminated in any surrounding well maintained grass areas.

Tarnished plant bugs will also move from senescing crops to nursery crops. They have a toxin in their saliva that can kill cells where they feed with their piercing-sucking mouthparts. They are especially troublesome on outdoor crops and their feeding can distort the growth of foliage and flowers. They can also cause flower bud drop and excessive branching

Fungus gnats are often an indication of excessive watering since the larvae do best in the potting media under those type conditions. The larvae feed on roots while the adults can be a nuisance pest in retail situations. While a reduction in watering can aid in control, chemical control targeting both the larvae in the potting media and the adults on and around the plants may be needed.

Leafminers that attack mums are usually a type of small yellow and black color fly. They will prick the leaf with their ovipositor (egg laying structure) and drink from the tiny drop of sap that occurs. This feeding can leave many tiny, easy to detect chlorotic spots on the leaf. They lay their eggs in the leaf and the resulting larvae feed and develop within the leaf. The pupa drops to the ground or potting media. Leafminers have historically been difficult to control and overuse of insecticides has been known to lead to insecticide resistance problems.

Yellow sticky cards should be used to monitor for whitefly adults, leafminer adults, thrips adults, scale and mealybug adults, fungus gnat adults, winged adult aphids, and shore fly adults. Insects usually not captured on sticky cards include non-winged aphids, mites, mealybug and scale immatures and adult females, and the eggs, larvae/nymphs, and pupae of many greenhouse insect and mite pests.

NO SPECIAL REVIEW FOR 2, 4-D, 2, 4-DB AND 2, 4-DP

by Darrell Hensley

The Environmental Protection Agency's (EPA) decision not to initiate a Special Review for 2,4-D, 2,4-DB and 2,4-DP is based on extensive scientific review of many epidemiology and animal studies. The Agency finds that the weight of the evidence does not support a conclusion that 2,4-D, 2,4-DB and 2,4-DP are likely human carcinogens. The Agency has determined that the existing data do not support a conclusion that links human cancer to 2,4-D exposure. This conclusion applies to 2,4-DB and 2,4-DP because they were considered for Special Review based solely on their similarity to 2,4-D. In addition, because they are used significantly less than 2,4-D, their contribution to exposure is minimal relative to 2,4-D. Because the Agency has determined that the existing data do not support a conclusion that links human cancer to 2,4-D exposure, the Agency is not initiating a Special Review of 2,4-D, 2,4-DB and 2,4-DP. This decision was first proposed on March 23, 1988 (53 FR 9590).

NEW TENNESSEE PESTICIDE REGISTRATIONS

by Gene Burgess

<u>Insecticides and Insect Repellents</u>
Ensystex Inc
Isopthor Termite Bait, *diflubenzuron*
For the control of subterranean colonies

LG International
LambdaStar, *lambda-cyhalothrin*
Control a variety of insect pests

Novozymes
Tick-Ex EC, *metarhizium anisopliae* strain
For the control of ticks and grubs.

Rotam Agrochem Co.
Lada 2F, imidacloprid
For foliar and systemic insect control in turf grass & ornamentals.

<u>Herbicides & Plant Growth Regulators</u>
Basf
Arsenal Powerline, *isopropylamine salt*
For control of vegetation in pasture, rangeland and noncropland.

Dupont
CottonQuik, *urea sulfate*
Cotton harvest aid/defoliant

Etigra
TDZ E-AG 4SC, *thidiazuron*

Cotton defoliant for agricultural use only.

Monsanto
Roundup PowerMax, glyphosate
Control in roundup ready crops

UCPA, LLC
Cropsmart Clethodim, *clethodim*
Control of annual and perennial grasses.

Universal Crop
Mepiquat Chloride, *mepiquat Chloride*
Foliar plant regulator for use on cotton.

Syngenta
Prefix, *s-metolachlor*
Control of certain grasses and broadleaf weeds in soybeans.

Fungicides, Rodenticides and Other Pesticides
Chemsico
No-Pest Rat & Mouse Bait Packs, *bromethalin*
Control of Norway rats, roof rats & house mice.

Dupont
Super Boll, *ethephon*
Plant regulator

Eastman
Acetic Acid P, *acetic acid*, RUP
preservative for use on grain and hay.

Sepro
Renovate OTF, *triclopyr*
For control of emersed, submersed and floating aquatic plants.

Syngenta
Azotech, *azoxystrobin*
Formulation fungicide to inhibit growth associated with odors caused by mold.

TOBACCO FOLIAR DISEASE CONTROL

by Darrell Hensley

Several fungicide products are available for use on tobacco in 2007. Quadris received a full (Section 3) label in 2006 for control of frogeye leaf spot, target spot, and blue mold. Our results indicate that Quadris provides consistent and effective control of blue mold, target spot, and frogeye, and will help reduce losses of yield and quality associated with these diseases.

Quadris is the only labeled option for management of frogeye and target spot, two diseases that have become more of a problem over the past few years. Research over the past two years has shown that where target spot has been historically severe, 1-2 applications of Quadris made at 8-12 fl oz/A, beginning when plants are between 24-36 inches tall, will provide significant control of target spot. Early applications prevent buildup of the target spot pathogen, suppressing disease later in the season; however, a mid- to late-season application may be required to protect tobacco between topping and harvest. Greater levels of disease will require at least two applications of Quadris to get good control of disease and improved yield. Growers with recurring losses to target spot should consider applying Quadris to their crops.

Keep in mind that Quadris is a protectant fungicide, and has limited systemic activity. Good coverage is critical to getting good disease control with Quadris. Quadris can be applied up to the day of harvest, making this material a good option for post-topping control of leaf spotting diseases.

Other options for blue mold include Acrobat 50W or Forum, Dithane DF, Aliette WDG, and Actigard. BASF has introduced a liquid formulation of dimethomorph, the active ingredient found in Acrobat 50WP, called Forum. The liquid formulation should be easier to measure and mix than Acrobat 50WP. According to the Acrobat and Forum labels, these products must be tank-mixed with another blue mold fungicide (such as Dithane) for management of resistance. Actigard remains one of our best options for blue mold control. This is a systemic product that functions by inducing plant defenses and is thus not a true fungicide. Coverage is not as critical with Actigard as with other fungicides, so this product may be applied with standard “over-the-top” type equipment and will still give good control of blue mold. Activation of host defenses takes several days for full protection, so Actigard should be applied 3-5 days before tobacco is exposed to the blue mold pathogen. If infection threatens before the 3-5 day activation period, Actigard can be tank-mixed with another fungicide to protect plants during this critical time. A second application made 10 days after the first has been shown to provide good protection against blue mold up to topping time. Aliette WDG is another product available for use on tobacco for control of blue mold – this is the only disease of tobacco for which this product is labeled. For field use, apply 2.5-4 lb/A of Aliette in a minimum of 20 gal/A of water on newly transplanted tobacco. Increase the spray volume by 20 gal/A for each week of growth until 100 gal/A is reached. The first application of Aliette should be made immediately after transplanting and subsequent sprays can be made on a 7-to10-day schedule. Aliette should not be tank-mixed with copper compounds, surfactants or foliar fertilizers, and the pH of the spray solution should not be less than 6.0. My experience with Aliette limited, however in two previous demonstrations, higher rates of Aliette (3lbs/acre) showed excellent blue mold control when mixed with 0.5 lb rate of Dithane. Ridomil Gold applied to the soil (ppi) did reduce severity of blue mold in some fields, but in general this fungicide should not be relied upon to manage blue mold. Resistance to mefenoxam (Ridomil Gold and Ultra Flourish) is widespread in populations of the blue mold pathogen, making Ridomil a risky choice.

FIELD CROP UPDATE

by Russ Patrick

Corn:
Is drying down fairly rapidly. Corn earworms that are in the crop will emerge as moths and look for

other food crops. I would say cotton would be logical choice for them. Fall armyworms have not been reported damaging corn, at this time, nor have we caught any in our traps.

Soybeans:
There may still be Japanese beetles feeding in soybean. In order to see them you need to look down into the canapy. We know they feed on the foliage but may do more damage when feed on developing pods. This is where you will find fall armyworms as well. And don't forget corn earworms which will feed on pods.

Stored Grain Management
Producers who plan to store their corn in the coming weeks should take advantage of cleaning out the bins of any old grain matter, caked on walls, etc. to ready the bin for new uninfested grain. It is even better if you vacuum the grain out of the bin then add a bin protective such as Tempo. It comes in either a wp or liquid. Remember from our Stored Grain Workshop this week it doesnt take very long for insects to build up quickly in bins making it necessary to go to the task of fumigating. That is the last straw and a dangerous one. Also, you must have in place a Fumigation Management Plan.

OTHER UT NEWSLETTERS WITH PEST MANAGEMENT INFORMATION

Fruit Pest News
http://web.utk.edu/~extepp/fpn/fpn.htm

Tennessee Crop and Pest Management Newsletter
http://www.utextension.utk.edu/fieldCrops/cotton/cotton_insects/ipmnewsletters.htm

Tennessee Soybean Rust Hotline - 877-875-2326
USDA Soybean Rust Web Site http://www.sbrusa.net

This and other "What's Happening" issues can be found at
http://eppserver.ag.utk.edu/Whats/whatshap.htm

Precautionary Statement
To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label.

Disclaimer
This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

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