The University of Georgia
College of Agricultural and Environmental Sciences
Department of Entomology

THE GEORGIA PEST MANAGEMENT NEWSLETTER

Your source for pest management and pesticide news

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If you live around Early County (Blakely, Georgia), collect your unwanted pesticides and take them to Georgia Clean Day on January 10, 2007.
You will find the details and forms at
http://agr.georgia.gov/vgn/images/portal/cit_1210/0/7/70605027Georgia%20Clean%20Day%202006%20Early.pdf
The program is free to participants.

The Georgia Clean Day is one of the best examples of a cooperative environmental program that makes everyone look good. Special year-end kudos go to:

1) The Georgia General Assembly – funding to dispose of unwanted pesticides
2) The Ga. Dept. of Agriculture – using funds efficiently to dispose of pesticides
3) UGA Extension – making local arrangements and bringing in the farmers
4) CARE Environmental – collecting pesticides and safely disposing of them

Bah, humbug you may say. This program is just another waste of tax money.
The facts say otherwise.

☼Georgia Clean Day has safely disposed of **1.75 MILLION pounds of pesticides!** Keep in mind that many pesticides are used at rates of one ounce or less per acre.
☼Without Georgia Clean Day, no one would have disposed of these pesticides.
☼Thanks to Clean Day, Georgia ranks in the top ten states nationally in disposal of waste pesticides.
☼The cost of the program has been approximately $1/pound of pesticide. Georgia Clean Day is one of the best environmental bargains around.

If you live in Georgia, give your legislator, the Ga. Department of Agriculture, and your Extension agent a pat on the back. If your state does not have a pesticide disposal program, point out the advantages and the low costs. Preventing environmental contamination is a lot cheaper than cleaning it up.

BIOTECHNOLOGY

Researchers at the University of Florida have developed a genetically modified tobacco mosaic virus (TMV) that will kill insects that consume the virus. Ordinary TMV is a curse upon the lips of many growers; it can cause catastrophic losses in tobacco, tomatoes, peppers, eggplants, and potatoes. However, the genetically modified virus is nearly harmless to plants and produces trypsin-modulating oostatic factor (*practice saying it so you will be ready for your next dinner party)*. This chemical prevents insects from producing trypsin, a crucial digestive enzyme. Affected insects cannot obtain nutrients from their food, and they starve.

TMV was used because it is very well known; it was the first virus formally identified by scientists. Farmers had been well acquainted with the effects of the virus for many years. Additionally, it is relatively easy to insert genes into TMV.

The system is an attractive one because the virus replicates in plants, so only a small amount of virus is necessary to start the process. However, the virus cannot pass through the seed, so it must be reapplied each season. Harvested plants infected with the modified virus can be processed, and the trypsin-modulating oostatic factor can be used to control mosquitoes.

For the full news article visit http://news.ufl.edu/2006/12/12/virus.

MONEY

The USDA has $20 million for people with innovative ideas for conservation. Conservation Innovation Grants (CIG) is a voluntary program intended to stimulate the development and adoption of innovative conservation approaches and technologies while leveraging Federal investment in environmental enhancement and protection, in conjunction with agricultural production. Under CIG, Environmental Quality Incentives Program funds are used to award competitive grants to non-Federal governmental or non-governmental organizations, Tribes, or individuals. CIG enables NRCS to work with other public and private entities to accelerate technology transfer and adoption of promising technologies and approaches to address some of the Nation's most pressing natural resource concerns. CIG will benefit agricultural producers by providing more options for environmental enhancement and compliance with Federal, State, and local regulations.

All proposed CIG projects must involve EQIP-eligible producers. The deadline is February 2, 2007. You will find the details here http://www.nrcs.usda.gov/programs/cig/

The USDA Cooperative State, Research, Education, and Extension Service (CSREES) has announced the FY 2007 Request for Applications (RFA) for the Integrated Research, Education, and Extension Competitive Grants Program – Integrated Pest Management, which includes the Crops at Risk Program (CAR) and Risk Avoidance and Mitigation Program (RAMP).

The goal of the Crops at Risk (CAR) program is to create or enhance integrated pest management (IPM) practices for individual food or fiber crops grown for commercial purposes. The CAR program will fund integrated multifunctional/multidisciplinary research, education, and extension projects for crops with high priority IPM needs as identified by stakeholders.
http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1081

The goal of the Risk Avoidance and Mitigation (RAMP) program is to enhance the development and implementation of innovative integrated pest management (IPM) strategies for (a) multi-crop food and fiber production systems; or (b) production systems on an area-wide or landscape scale. The primary emphasis of RAMP applications should be crop productivity and profitability while addressing critical environmental quality and human health issues. RAMP applications may address major acreage crop production systems, key fruit and vegetable production systems, or other agroecosystems where identified environmental quality or human health issues exist. The RAMP program will fund long-term projects that involve systems approaches.
http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1125

For both of these programs, it is important to show that you are working on a problem that has been identified by growers or other stakeholders.

The deadline to apply to either program is February 12, 2007

NEWS YOU CAN USE

Did you ever wish there was a comprehensive source for information concerning organic production and sustainable practices? Save that wish for great wealth or smaller thighs. The National Sustainable Agriculture Information Service has an enormous amount of information on a wide variety of topics. Funded through USDA, this site has a key element that many sustainable definitions seem to miss. No agriculture is sustainable unless it makes money. The goal of the Information Service is to help growers protect resources and show a profit.

The concept of sustainability came about when we realized that modern agricultural practices were threatening the key resources (i.e., soil and water) that make profitable agriculture possible. Whether you are a Birkenstock hoer or a nozzle head, you will find some useful information at http://attra.ncat.org/

Samsung Technology announced a new type of washing machine that uses sliver ions to kill germs in clothes. According to the manufacturer, the machine removes 99.99% of germs and prevents regrowth for 30 days. This washer falls into the Pest Management News because EPA will regulate it as a pesticide. Originally, the Agency considered the washer to be a device and not subject to EPA regulation. Because the machine releases silver ions into the clothes, however, the Agency will regulate the washer as a pesticide. Do not enquire about the machines yet; they are not available in the U.S. http://www.samsung.com/in/products/washingmachine/thesamsungwashingmachineadvantage/index.htm & http://www.epa.gov/oppad001/ion.htm

DON'T DO IT

I took this picture at my local grocery store just to make our less intelligent readers feel better about themselves. The picture is not staged. The grocery thought it was a good idea to display pesticide between Whitman's chocolates and stuffed animals.

To make matters worse, it was nearly impossible to convince them of their mistake. The first day I saw the display, I talked to an assistant junior manager. I explained to him what I do and why they were making a big mistake. He looked sincere, but nothing had changed by the next week. This time I called and talked to a more senior assistant (at least his voice had changed). He sounded sincere, but nothing changed. When I next visited the store, children had obviously been playing with the toys and had stuffed some of the animals among the pesticide bags. I quickly brought my children into the store, but I was not rewarded. As teenagers, they said they felt dumb playing with stuffed animals, and neither of them got sick. I bought my wife two boxes of chocolate, but she did not develop even a sniffle. Since my family would not cooperate with grounds for a lawsuit, I called an inspector with the Georgia Department of Agriculture instead. It was never my intention to squeal on the store, but they would not listen to an ordinary professor. I cannot wait to see what happens this spring.

FEDERAL NEWS

Companies that produce and sell conventional pesticides want EPA to make "natural pesticides" prove their efficacy. For chemicals that make a health claim, the Agency requires the manufacturer to prove that the pesticide really does "kill 99% of germs that cause grotesque oozing sores and bad manners in restaurants." However, the Agency does not hold other pesticides to that standard. To register an insecticide on corn, a company does not have to submit efficacy data to the EPA. The Agency feels that the marketplace will eliminate ineffective products, and companies will not spend a lot of money to register a pesticide that does not work.

Marketing pesticides is more than simply controlling pests. In a nutshell, marketing is making the customer feel good about the purchase. Once, I was shopping in a warehouse club, and I saw a fellow examining a package of ultrasonic devices that claimed to control spiders. Being overcome with ego (a common occurrence with professors), I felt compelled to tell the man that the ultrasonic devices were worthless against spiders unless the spider was crushed between the gadget and the wall. He began to replace the items and stopped. "I believe you," he said, "but my wife has been hounding me to do something about the spiders in my house. If I buy these ultrasonic devices, she will think I have done something, and I will live in peace." I realized then that controlling pests might not be the key element for marketing a pesticide.

Many people are afraid of conventional pesticides. Media has pounded the public over the head with actual and perceived risks for years. The fear of pesticides, however, does not mean that people prefer insects to insecticides. This conundrum creates a niche for "natural" products marketed to control pests. These products are relatively inexpensive to bring to the market because some ingredients (referred as 25(b)) are exempt from FIFRA requirements. If you wanted to sell putrescent whole egg solids to control silverfish, the Agency is not going to require toxicity data. Additionally, you will not have to demonstrate that putrescent whole egg solids will control silverfish.

New companies are brewing potions of garlic, thyme, lemongrass, and other natural components and selling the products to control everything from termites to mosquitoes. Many people buy these products because they feel like they are doing something to control the pests without exposing themselves to pesticide risks. The sale of "natural" pesticides is hurting sales for the real thing, and the other companies are fighting back.

Companies that sell "conventional" pesticides want EPA to require efficacy data for the "natural" companies. Their complaint is not without merit, particularly when the "natural" product is supposed to protect the user from mosquitoes, ticks, or other disease vectors. As long as the "natural" company avoids specific health claims (e.g., protects you from West Nile virus), the EPA does not usually take any action. However, everyone knows that mosquitoes transmit West Nile virus and some other diseases. The buyer may conclude the product protects against West Nile even if the product label does not make that specific claim.

Texas Bug Juice is one product that combines natural products and claims to repel mosquitoes. Part of the marketing campaign is the risks associated with DEET (these products do have some risks, but they are highly effective against mosquitoes). From their web site, *"The fact that insects avoid DEET should be a clear indication that humans should also."* I found this statement odd since they claim that insects also avoid their product.

This debate is interesting and troubling. Because there are little or no scientific data, we have little foundation upon which to advise consumers. Just because a product is "natural" does not mean that it will not control pests. However, "natural" does not confer safety either. Cooking sprays are made from natural products, and they are very safe if used as directed. However, the spray can be deadly if used in other ways. It seems like a good idea to make both conventional and "natural" pesticide products demonstrate their efficacy and safety. You can read more at
http://www.palmbeachpost.com/business/content/business/epaper/2007/01/01/c1bz_pesticid_0101.html

You can find a list of 25(b) chemicals at
http://www.epa.gov/oppbppd1/biopesticides/regtools/25b_list.htm

The EPA has nearly completed its Label Review Manual. The purpose of the manual is to help people understand the labeling process and to provide consistency in pesticide labeling. Good job, EPA! It can be impossible to decipher the precise meaning of many pesticide labels. Unfortunately, misinterpretation of pesticide labeling can cause the user to inadvertently break the law by not following the label directions.

Although the manual was written primarily to instruct EPA employees, it will benefit anyone who deals with pesticide labeling. The guide will be particularly helpful to pesticide registrants as they prepare pesticide labeling for EPA approval.

You will find the Label Review Manual at http://www.epa.gov/oppfead1/labeling/lrm/

HEALTH AND THE ENVIRONMENT

When the topic turns to the brown recluse spider, grown men shudder and shake out their shoes. According to my colleague (Dr. Nancy Hinkle), Georgia residents are unlikely to encounter a brown recluse. In a five-year study, Dr. Hinkle asked people to send in spiders suspected of being the dreaded brown recluse. Approximately 500 spiders were submitted, but only 14 locations sent in brown recluse spiders. Dr. Hinkle and her coauthors combined their data with historical information and determined that only 26 counties (out of Georgia's 159) were documented to have brown recluse spiders.

Nearly all of the brown recluse spiders were submitted from counties in the northwest to north-central regions of Georgia. Only one brown recluse was submitted from a county (Houston County) in the coastal plain region of Georgia. Because that spider seemed so out of place, the authors thought it might have been have transported to Houston County.

The range of the brown recluse spider in the U.S. is centered in the Missouri/Arkansas region. A person with some knowledge of spiders can usually win a $10 bet that he or she can find a brown recluse spider. Georgia is on the periphery of the spider's range, and you had better keep that $10 in your pocket. Individual houses may be heavily infested with brown recluse spiders, but the spiders are not common as they are in the heart of their range.

In the eleven years I have been with UGA Extension, many people have asked me to identify spiders because they were afraid they bore the curse of the brown recluse. Except for one sample, none of the spiders was a brown recluse. However, the homeowner that submitted the brown recluse had dozens of them. We told her to get help from a professional pest control operator. Infestations of brown recluse spiders can be difficult to eliminate, and it is hard to sleep comfortably dreaming of spiders.

The range of the brown recluse in Georgia has been greatly exaggerated by misdiagnoses. Brown recluse spiders can cause a tissue necrosis (the tissue dies around the bite area), although this symptom is not common. However, many other conditions can cause similar lesions. If a doctor cannot determine another cause, the lesion may be attributed to a spider bite. Since the spider is not around to testify, it is found guilty in absentia.

Do not stick your hands in places you cannot see, but try not to lose sleep over things that may creep slowly up the bedclothes at night when you lay sleeping. *If spiders still frighten you, buy some broad, flat shoes and some shoes with very pointy toes. That way, you can kill large numbers of spiders at once and get rid of the ones that retreat into corners.*

According to the World Health Organization (WHO), pesticides are commonly used to commit suicide. About 900,000 deaths worldwide each year are attributed to suicide. Pesticide poisoning causes about 250,000 deaths each year. Not all of them are suicides, but WHO estimates that 60% to 90% of

suicides in China, Malaysia, Sri Lanka, and Trinidad are due to pesticide ingestion.

The WHO also reports that the reduction in the availability of a toxic product is one of the best means for reducing suicides. In Samoa, suicide rates were around 5 per 100,000 till 1974. "Paraquat", a pesticide, was introduced around 1975 in the country. Suicide rates continued to rise, reaching a peak around the 1980s to the level of 50 per 100 000. During 1982, access to this toxic product was severely curtailed by public health measures. In the next few years, the rates drastically fell to about 10 per 100,000. These numbers do not prove that paraquat was the driver behind the suicide rate, but the trend is worth noting.
http://www.who.int/mediacentre/news/notes/2006/np24/en/
http://www.searo.who.int/en/Section1174/Section1199/Section1567/Section1824_8089.htm

If you use highly toxic pesticides, store them securely. No one can say whose life you might save.

You may not realize that we had a tragedy narrowly averted regarding pesticides and the Clean Water Act. The Clean Water Act prohibits any discharge of any pollutant into water unless the polluter has a permit through the National Pollutant Discharge Elimination System (NPDES) program. Some people consider any pesticide a pollutant and wanted EPA to require pesticide applicators to have a permit if their pesticide application would potentially contaminate water. However, many pesticides are labeled for use near water, and their effective use requires application near water. Some pesticides are even labeled for application to water in order to control particular pests.

The EPA has issued a final rule regarding this situation. The bottom line is that pesticides applied according to the label directions do not require a permit.

“EPA issued a final rule clarifying two specific circumstances in which a Clean Water Act (CWA) permit is not required to apply pesticides to or around water. They are: 1) the application of pesticides directly to water in order to control pests; and 2) the application of pesticides to control pests that are present over or near water, where a portion of the pesticides will unavoidably be deposited to the water in order to target the pests.

The action puts into effect a rule that confirms EPA's past operating approach that pesticides legally registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) for application to or near aquatic environments, and legally applied to control pests at those sites, are not subject to NPDES permit requirements.”
The Agency did the right thing. Remember that the next time you criticize them. You can find the details at http://cfpub.epa.gov/npdes/home.cfm?program_id=41#water_transfer

FQPA/REREGISTRATION

The EPA has received requests to cancel a number of registrations for diazinon, namely granular diazinon products in or on beets (red and table), broccoli, Brussels sprouts, cabbage, carrots, cauliflower, collards, endive (escarole), ginseng, kale, melons, mustard, onions (bulb and green), radishes, spinach, sugar beets, sweet corn, and tomatoes, and use of liquid or wettable powder diazinon products in or on Chinese broccoli, Chinese cabbage, Chinese mustard, Chinese radish, corn, grapes, hops, mushroom houses, sugar beets, and walnuts, or as a seed treatment. The requests would not terminate the last diazinon products registered for use in the U.S. Unless the Agency is swayed by comments, EPA plans to grant the requests to cancel these registrations.
http://www.epa.gov/fedrgstr/EPA-PEST/2006/December/Day-06/p20429.htm

The revised risk assessment for aldicarb is available for comment. Risks of concern associated with the use of aldicarb are: risks from rural drinking water wells in peanut/cotton growing regions in the southern coastal plain (Alabama, Georgia, South Carolina), ecological risks to mammals, birds, fish, and aquatic invertebrates. The EPA is particularly interested in ideas to reduce risks. Aldicarb is an important pesticide for a number of crops, but it has some troubling risks as well. If the risks cannot be reduced, the days may be numbered for aldicarb.

In the meantime, do not use aldicarb illegally or give it to anyone else. Undoubtedly, the ecological risks of aldicarb have been exaggerated because there is a long history of aldicarb users diverting the product to kill stray dogs and other nuisance animals.
The deadline for comments is January 16, 2007. http://www.epa.gov/fedrgstr/EPA-PEST/2006/November/Day-15/p19360.htm

It is the end of the line for azinphos-methyl. The EPA has announced plans to phase out the remaining uses over the next few years.

* Brussels sprouts and nursery stock will be phased out by September 30, 2007;
* Almonds, pistachios and walnuts by October 30, 2009;
* Apples, blueberries, cherries, parsley, and pears by September 30, 2012.

http://www.epa.gov/oppsrrd1/op/azm/phaseout_fs.htm

The Reregistration Eligibility Document for malathion is available for comments until January 29, 2007. The EPA has some proposed label changes that are intended to resolve the risks of concern.
♦For drinking water and residential bystander risks, application rates (pounds per acre or numbers of applications) were reduced.
♦Occupational risks were mitigated with PPE or engineering control requirements on the labels and extending restricted-entry intervals (REIs) for some sites.
♦Ecological risks were addressed by adding buffer zone and spray drift requirements to the labels and by lowering application rates for many uses.
http://www.epa.gov/fedrgstr/EPA-PEST/2006/November/Day-29/p20150.htm

The appearance of any trade name in this newsletter is not intended to endorse that product nor convey negative implications of unmentioned products.

Dear Readers:

The Georgia Pest Management Newsletter is a monthly journal for Extension agents, Extension specialists, and others interested in pest management news. It provides information on legislation, regulations, and other issues affecting pest management in Georgia.

Do not regard the information in this newsletter as pest management recommendations. Consult the Georgia Pest Management Handbook, other Extension publications, or appropriate specialists for this information.

Your input in this newsletter is encouraged.

If you wish to be added to the mailing list, just call us at 706-542-9035.

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Or visit us on the Web. You will find all the back issues there and other useful information.
http://www.ent.uga.edu/GPMN_archive.htm

Sincerely:

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