



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

April-May 2006

Volume 29, no. 4

If you have ever thought you could do a better job than the yahoos that run things (if they would only ask you), here is your chance to help set funding priorities for integrated pest management (IPM). The Southern Region IPM Center is responsible for supporting IPM and distributing federal funds for IPM projects. Each year, grants are awarded based on how well submitted proposals fit with IPM priorities. The Center is asking stakeholders in the Southern Region to help them set priorities for the upcoming cycle. They are committed to funding projects that help real people in the real world. You can submit your priorities at: <http://www.sripmc.org/Policy/Priorities/2006Priority.cfm>

In a class-action suit, growers took BASF to court for fraud regarding Poast and Poast-Plus herbicides. The company had registered both pesticides with EPA and included exactly the same use sites for both herbicides. Additionally, the two products contain the same active ingredient at the same concentration. However, BASF labeled the products differently, with only one product including a number of minor crops as use sites. The product that listed the minor crops was substantially more expensive. The suit also alleged that BASF deliberately kept minor-crop producers from finding out that the cheaper product was also registered for their uses. A jury determined that BASF violated consumer fraud regulations, and the court awarded more than \$52 million. The Minnesota Court of Appeals and the Minnesota Supreme Court upheld the ruling.

<http://www.extension.iastate.edu/agdm/articles/mceowen/McEowOthCourtsApr06.html>

The implications of this case go beyond the bucket of cash, however. The Federal Insecticide, Fungicide, and Rodenticide Act authorizes EPA to regulate pesticides; the EPA (a federal agency) approves labeling and orders changes as they see fit. In general, states have very limited authority to go beyond the federal regulations. People that are critical of this court decision say that the state court is going to force the company to change the pesticide labeling, usurping EPA's authority. Other people know that card sharks should be aware of the risks when they deal from the bottom of the deck.

BIOTECHNOLOGY

The Atlanta Journal-Constitution (5-14-06) reports that genetically modified (GM) crops were grown on more than 220 million acres worldwide in 2005. The U.S. has the greatest acreage, with 123 million acres of GM crops. Argentina, Brazil, Canada, China, Paraguay, India, and South Africa all have

more than one million acres planted to GM commodities. In total, GM crops are grown in at least 21 countries.

Three crops, corn, cotton, and soybeans, and two traits, herbicide resistance and pesticide production, account for nearly all of the acreage in GM crops. By far, the most commonly used herbicide resistance is called "RoundUp Ready"; these plants are tolerant of glyphosate, the active ingredient in the well-known herbicide. RoundUp Ready soybeans and cotton are widely grown. The other trait gives the plants the ability to make one or more proteins that are toxic to insects (primarily caterpillars). The gene for encoding the protein(s) comes from the bacterium *Bacillus thuringiensis*. It is most widely used in cotton and corn; the crops are commonly referred to as Bt cotton and Bt corn.

To this point, growers are the primary beneficiaries of the new technology, but the environment has benefited as well. Insecticide applications to manage insect pests are greatly reduced for Bt crops, and growers also realize greater advantage of biological controls that would be killed by ordinary insecticide applications. RoundUp Ready crops greatly increase the application of glyphosate herbicide, but other types of herbicide applications may be reduced. More importantly, the RoundUp Ready technology makes it easier to produce crops with minimal tillage. Reducing tillage greatly reduces erosion, which EPA calls the greatest environmental threat to surface water.

Critics of GM crops point out that herbicide-resistant crops increase the amount of herbicides being applied. Scientific studies have not made it clear whether or not overall herbicide use decreases with herbicide tolerant crops, although the type of herbicides applied are different. For some crops, like alfalfa, the technology may promote the use of herbicides on a crop that is typically grown with little herbicide input.

Many people are also concerned about GM commodities contaminating conventional crops through cross-pollination and/or during transportation, storage, and processing. In a well-known case, GM corn that was approved for human consumption was accidentally mixed with regular corn that was processed into a variety of products.

The USDA published a report about the first decade of GM crops in the U.S. Ten years ago, we had just four million acres of GM crops; now the U.S. has more than 120 million acres. Here are some of the conclusions offered by USDA.

Seed suppliers/technology providers gained from increased returns to research and investment incentives in crop biotechnology. More than 92 percent of applications for field-testing of GM products were approved by the USDA.

Farmers continue to adopt GE soybean, corn, and cotton, particularly herbicide-tolerant soybeans, herbicide-tolerant cotton, and insect-resistant cotton. They benefit from simplicity and flexibility of the technology, savings in time and additional income from off-farm activities, and lower pesticide use. Nearly 90% of the U.S. soybean acreage is planted to GM herbicide-resistant varieties. About 50% of U.S. cotton and 35% of corn acreage are planted with GM insect-resistant varieties.

Consumers have concerns about foods containing GE ingredients, but such concerns have not had a large impact on the market for these foods in the U.S. Relatively few products are advertised as "GM free." In contrast, stores in Europe carry very few products with GM ingredients. You can read the executive summary at http://www.ers.usda.gov/publications/eib11/eib11_reportsummary.pdf

According to scientists and farmers at a meeting in Spain, coexistence of genetically modified, conventional, and organic crops is feasible. The participants agreed that coexistence is possible as long as farmers use seed supplies of conventional crops in which the adventitious presence of GM seeds does not exceed 0.5%. In addition, the use of a buffer zone of 20 meters around biotech crops planted with the conventional variety is sufficient to assure coexistence. Dr. José Ignacio Cubero, professor in the Department of Genetics and Crop Improvement of the University of Córdoba, said that legislation measures on coexistence should be based on scientific knowledge, and that there is a tendency among European governments to ignore scientific evidence when deciding on the required separation distances.

More information (in Spanish) is available at <http://www.fundacion-antama.org/>
(Crop Biotech Update, 4-21-06)

NEWS YOU CAN USE

This site offers a wealth of information about pesticide common names, pesticide classification, molecular formulae, etc. <http://www.alanwood.net/pesticides/index.html>

Which of the following items do you think was most effective for trapping armadillos: nightcrawlers, chicken feed, whole eggs, bananas, marshmallows, sardines, or vanilla wafers? None of them. In a study by UGA researcher Mike Mengak, traps baited with these items caught zero armadillos. In fact, they were unable to find any bait that helped them to trap significantly more armadillos than an empty trap.

These findings suggests that if armadillos are to be captured, trap placement is much more important than attractant selection. Homeowners and others attempting to live trap armadillos should carefully select a trapping location. It is likely that a trap (even one without bait) with wings placed near an active burrow will be the most effective method for capturing individual nuisance animals. Homeowners and others can place traps near natural barriers or fences such as the walls of patios, edges of buildings or landscaping features; or near natural fences such as fallen trees. The use of baits and attractants does not appear to increase trap success.

Problems and complaints about armadillos have become much more important now they have moved into the area where I live. Armadillos do not eat plants around the house, but they will turn a yard into a mess as they dig for insects and worms. Controlling insects in the turf can help to control armadillo damage, but removal is often recommended. Here is Dr. Mengak's advice.

Armadillo can be controlled by trapping (adding baits seems unnecessary). Wire cage live traps measuring at least 10 x 12 x 32 inches are recommended. Use of wings, constructed of 1 x 6 inch lumber in various lengths and placed in a V-arrangement in front of the trap can help to "funnel" the armadillo into the trap. Setting traps along natural barriers like logs or the side of a building increases capture success. Placing the trap in front of a burrow entrance is better than random placement in the environment. No bait, lure or attractant has been shown to be effective in increasing capture success, although there are numerous reports of baits used with varying success. No repellents are registered for use with armadillo. No toxicants (poisons) are registered for use. Pesticide use to reduce insect populations in landscape settings may be effective. No fumigants are registered for use to control armadillo. Shooting is an effective control technique. Armadillos are not protected in Georgia. There are no season or harvest restrictions. Use a .22 caliber rifle in a safe and legal manner. Check city and county ordinances before discharging weapons. Always practice safe gun handling procedures.

You can use this final interesting fact for a dinner party. Many cultures in South and Central America consider armadillo a delicacy. I have often heard them called “possum on the half-shell”, but I always thought it was just an expression.

Do you ever get sick of deer eating your landscape and garden plants? No matter where I move, it seems that the neighbor loves deer and even puts out food to attract them. It would not bother me, but the deer always seem to use my plants for an appetizer or dessert. If you have a similar problem, this [plant list](#) may help. It includes shrubs, trees, vines, groundcovers, and flowers that deer do not prefer to eat. You will note, “do not prefer.” As you probably know, deer will eat nearly any kind of plant if they cannot get something better, and deer will try a taste of anything new. The list is the most effective if you don’t let your neighbor see it.

DON'T DO IT

Here are four sad stories about four unnecessary deaths (Amer. J. of Emergency Medicine)

Case 199. A 49-year-old man in his barn reached for his coffee cup and took a sip. He had forgotten that he had just poured a paraquat herbicide into his cup because the herbicide bottle was deteriorating. The patient died on the 10th hospital day.

Case 193. A 3-year-old girl mixed unknown amounts of chlorophenoxy and glyphosate herbicides and carbaryl and pyrethroid insecticides found outdoors to make a “potion” and drank it. She became diaphoretic, agitated and short of breath at home and was transported to the hospital by private vehicle. She developed progressive cerebral edema and brain death.

Case 203. A two-year-old boy ingested a liquid pesticide that had been transferred to an unlabeled soda bottle and left temporarily on the kitchen counter. The child experienced multi-organ system failure and expired on the third hospital day.

Case 211. A 58-year-old man unintentionally ingested paraquat methosulfate from a soda can. He expired on the 18th hospital day.

My grandfather had a saying, “If you stay off of the train track, you won’t get hit by the train.” Please do not be foolish or careless with pesticides.

FEDERAL NEWS

The EPA signed an agreement that settles an endangered species case brought against the Agency by the Natural Resources Defense Council. The settlement establishes deadlines for the EPA to make determinations regarding the potential effects of the herbicide atrazine on 21 endangered/threatened species named in the lawsuit. The EPA must determine if its actions (1) have no effect on any of the named species; (2) may affect but are not likely to adversely affect any of the named species; or (3) may affect and are likely to adversely affect any of the named species. If the Agency finds that any of the species are likely to face an adverse effect, EPA will consult with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service. In return, NRDC agreed not to seek injunctions against the use of atrazine until EPA has a chance to make their determinations. You can read all about it at <http://www.epa.gov/espp/es-settlement-atrazine.pdf> along with a [fact sheet](#) about endangered species.

The EPA has decided not to register methyl iodide, a potential replacement for methyl bromide.

The use of methyl bromide has been greatly restricted because it may be breaking down ozone in the earth's protective atmospheric layer. Methyl bromide was a valuable agricultural tool because it is an excellent soil sterilant, and it dissipates from the soil quickly. Various chemicals and tactics can control the same pests, but none is as good as methyl bromide. Methyl iodide has a very similar chemical structure, but it does not degrade ozone. Many people felt that it could replace methyl bromide and be used in the same way. Unfortunately, there are concerns about methyl iodide as human carcinogen. The Agency will reconsider registration of methyl iodide in 2007 when the assessment of other soil fumigants is complete.

http://www.epa.gov/oppsrrd1/reregistration/soil_fumigants/

The EPA plans to revise data requirements for biochemical and microbial pesticides. Currently, these pesticides typically have waivers for some of the data required for the registration of conventional pesticides. As scientific knowledge increases and more of these pesticides are registered, it is important to have more precise definitions and requirements. The comment period closes June 6. See

<http://www.epa.gov/fedrgstr/EPA-PEST/2006/March/Day-08/p2185.htm> for more information.

Soon, you will no longer be able to use propylene oxide (PPO) to fumigate chewing gum. This product is registered as an insecticidal fumigant for use with many products, including nuts, cosmetics, spices, etc. It could also be used to control stored product pests that get into gum during storage and shipping. The registrant has asked EPA to remove gum from the registration. If you already have PPO, you can continue to use it to fumigate gum. If you want to comment on this request, you have until June 23.

<http://www.epa.gov/fedrgstr/EPA-PEST/2006/May/Day-24/p7832.htm>

On a more serious note, the risk assessment for aldicarb is available, and EPA is asking for options to reduce risks. Aldicarb is in a tricky situation. It is an important production tool for pecans, cotton, and other crops. On the other hand, it is highly toxic, and people commonly use aldicarb illegally to kill dogs, coyotes, and other nuisance animals. It has also been implicated in human poisonings and groundwater contamination. Review the risk assessment and submit comments at this web site by July 17.

<http://www.epa.gov/fedrgstr/EPA-PEST/2006/May/Day-17/p7496.htm>.

HEALTH AND THE ENVIRONMENT

These links will help you keep insects and other arthropods from joining your party as you frolic in the summertime outdoors.

[Control mosquitoes](#)

[Protect your family from ticks](#)

[Protect yourself from bites and stings](#)

[Managing fire ants](#)

This is only a fraction of the information at your fingertips from the University of Georgia Cooperative Extension and other universities across the United States. The big advantage of getting information from us is that we are not trying to sell you anything. You can count on information from Cooperative Extension to be unbiased information based on the latest research. You can find your local Extension office [here](#). This website is a [gateway](#) that will help you find Extension information on the Internet.

The EPA has a new Hispanic environmental health page that focuses on reducing risks of pesticides (<http://www.epa.gov/espanol/pesticidas.htm>). The new page discusses health and environmental issues associated with the proper use of pesticides and informational resources in Spanish and English. This Hispanic web site is part of the agency's continuing expansion of outreach to the Hispanic community in the United States and Puerto Rico.

What pesticide is the absolute worst of all time for human health and the environment? Most people would quickly answer “DDT,” but most people would be wrong. DDT has been one of the most effective weapons to help control malaria. Malaria kills more than a million people in Africa each year, mostly young children and pregnant women.

Because of DDT's bad reputation, however, developed countries have discouraged its use and even threatened to sanction African countries that want to use DDT to protect their citizens from malaria. The DDT is not sprayed into the environment; it is applied to indoor walls to kill adult mosquitoes that alight there.

The U.S. government seems to be changing its mind about DDT. The U.S. Agency for International Development recently endorsed using DDT in the indoor spray program and will help fund the program in sub-Saharan Africa. The Agency reported that more than one million people would be protected. (FoxNews.com, 5-4-06)

Unfortunately, nothing in life is as simple as we would like. Emotion is not helpful when we try to make decisions about pesticides. We must examine both the risks and the benefits using the best available science. We rarely have every piece of data we would like to have, but blind decisions are risky. As children, we recognized nearly everything as “good” (e.g., Grandma) or “bad” (e.g., spitting). As we grew older, however, we realized that even Grandma might have a dip of snuff now and then.

People for the Ethical Treatment of Animals (PETA) has launched an offensive against the use of animals in tests of pesticides and other chemicals for human carcinogenicity. Often, I consider PETA views extreme, but I had to admit the organization had some valid points in this case. Many human cancers take decades to develop; the most common laboratory animals, rats and mice, only live for a couple of years at most. Typically, the animals are exposed to large amounts of the chemical so that any negative effect might be revealed during their relatively short lives. If a rat pumped with pesticide gets cancer, what are the chances that you would see the same effect in a human exposed repeatedly, but to a much lower dose? In most cases, no one can answer that question. With ambiguous data, it is not difficult to argue for or against the chemical. You can read further at their web site. <http://www.stopanimaltests.com/u-ntp.asp>

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://pubs.caes.uga.edu/caespubs/entomology/pestnewsletter/newsarchive.html>

Sincerely:



Dr. Paul Guillebeau, Professor & Extension Entomologist