

Cooperative Extension Service
The University of Georgia College of Agricultural and Environmental Sciences



Georgia Pest Management Newsletter

Your source for pest management and pesticide news

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[Now, an interesting and true insect story.](#)

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HEALTH AND THE ENVIRONMENT

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We're back. We apologize for the lack of news, but there were delays with classes, a car accident, and trying to get promoted. Nearly everything is shipshape again, and you can expect the same useful information month after month.

As a gift of apology, here is a web site that will interest a great many people. From this time of year forward, you will start to see caterpillars of various shapes, sizes, and colors. We receive regular calls from interested clients who wish to identify their latest find, and we do our best. Believe it or not, however, very few entomologists can identify every caterpillar from memory. This web site <http://www.npwrc.usgs.gov/resource/insects/cateast/cateast.htm> is an excellent resource to identify many caterpillars that you will find in the East. The site includes color pictures and useful descriptive information. This resource has saved me from the old method of accidentally squashing the specimen and muttering “too bad” before having to admit that I could not identify the caterpillar in one hundred years. *If you click on the site map link, you will find other useful information, including “Earthworms of North Dakota .”*

Now, an interesting and true insect story. This insect is commonly referred to as a hummingbird moth (photo courtesy of the USGS web site referenced above) because of the moth’s ability to hover. As my brother sat in his swing, enjoying the outdoors at dusk, a hummingbird moth approached his face. He sat quite still to get a better look. To his surprise, the moth extended its proboscis and began to probe in my brother’s nose. After a moment, the moth left, apparently dissatisfied with the food source. However, the moth returned after a few minutes for another snort. I suggested biological control to my brother as an insecticidal application seemed impractical, but he declined this strategy.



Federal News

The EPA has issued an interpretive statement and a proposed rule regarding the Clean Water Act (CWA) and pesticide application to water made in accordance with the pesticide label. The Agency stated that a CWA permit is not required where application of a particular pesticide to or over water is consistent with requirements under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). However, the EPA reiterated the importance of applying pesticides in accordance with their label directions. The EPA expects to finalize the rule soon after review of public comments. (EPA Program Update, 2-08-05)

This controversy arose with lawsuits against pesticide applicators that were applying pesticides to water according to the pesticide label (e.g., pesticide applications to control mosquitoes). The complainants alleged that the applicators were violating the CWA because they did not have a permit to discharge a pollutant into U.S. waters.

If your business or livelihood depends on pesticides, be aware that pesticides are under greater scrutiny than ever before. **DO NOT** use pesticides illegally; do not provide pesticides to other people if you think they might use them improperly. If you know of applicators who are using pesticides illegally, talk to them. Illegal use of pesticides will result in their cancellation. Ironically, the boneheads who use pesticides improperly will not recognize that they are the cause.

News You Can Use

This web site leads to everything you need to know about soybean rust.
<http://www.ipmcenters.org/NewsAlerts/soybeanrust/>

Here are some web sites with useful information about spray technology. We are not recommending

any particular product, and we would like to know if we have left anyone off this list.

CP Products: <http://www.cproductsinc.com/>

Greenleaf Technologies: <http://www.turbodrop.com/>

Hypro: <http://www.hypropumps.com>

Micron Sprayers Limited: <http://www.micron.co.uk/index.html>

Spraying Systems: <http://www.teejet.com/ms/teejet/>

Wilger, Inc: <http://www.wilger.net/>

Biotechnology

Currently, all of the genetically modified crops grown commercially are approved for both animals and humans. This situation is largely due to some modified corn being accidentally introduced into the human food supply before being properly approved. Among non-modified crops, animal foods are not always suitable or approved for human consumption.

We are approaching a new decision point regarding animal foods and genetically modified crops. There are obvious, significant advantages to genetic modification of animal foods. The crops could be engineered to produce extra protein or other nutrients that make the animals grow better or make their meat/egg/milk products better tasting or more nutritious. We could engineer animal food crops to produce pharmaceuticals that make the animals grow better or faster; it is common practice now to include antibiotics in animal food.

As we advance in this field, there are at least three controversies brewing. Should genetically modified crops be approved for animal consumption if the crops are not approved for human consumption? The situation with StarLink corn a few years ago demonstrated that it is difficult (perhaps impossible) to guarantee that animal foods never mix with human foods. If we do not permit animal-feed-only approvals for some genetically modified crops, we will have to forgo some crop improvements that would be very helpful for animal production.



Scientists hope new technology will produce leaner (!) beef.

Would you consume meat/egg/milk products from animals that have eaten genetically modified crops not approved for human consumption? Currently, proteins that result from genetic engineering in crops do not appear in animal products. The animals break down the proteins as part of the normal digestive process. In my opinion, this scenario does not affect the status quo. Animals already eat many things that are not approved for human consumption and convert those proteins into something that humans eat

with gusto (and catsup). I don't really want to know everything a pig eats, but it does not stop me from eating a ham sandwich. However, the controversy shifts if the animal product has some novel protein as a result of the animal's diet of genetically modified foods. This situation is purely fiction for now, but that time may come.

Animal feeds that include antibiotics are controversial already. The situation may not change significantly if the antibiotics are produced from the food crops, although there may be greater potential for the development of drug-resistant bacteria.

You will find more information about biotechnology and animal feed at this web address.

<http://ucce.ucdavis.edu/files/filelibrary/5283/17273.pdf>

According to an EPA survey, a large majority of cotton and corn growers are meeting regulatory requirements to manage insect resistance. When Bt cotton and corn varieties were introduced, many people were concerned that insect pests would become resistant to the insecticidal protein that the plants produce. The EPA established regulations to address these concerns; growers are required to establish refugia that protect part of the insect population from exposure to the toxic proteins.

The resistance management plan depends on grower cooperation, and EPA requires an annual survey to evaluate grower compliance. In 2004, survey data indicate that 91 percent of growers met refuge size requirements, and 96 percent met refuge distance requirements. Earlier surveys have shown similar compliance over the past 5 years.

Get more information on the web at <http://www.ncga.com/news/notd/2005/january/010605b.htm>

According to the International Service for the Acquisition of Agri-Biotech Applications (<http://www.isaaa.org/>), biotech crops are growing by leaps and bounds.

- In 2004, the global area of biotech crops increased 20 percent.
- The estimated global area of biotech crops for 2004 was 200 million acres.
- In 2004, biotech crops occupied 5 percent of all global cultivable cropland.
- 8.25 million farmers in 17 countries grew biotech crops in 2004.
- In 2004, there were 14 countries growing 125,000 acres, or more, of biotech crops: United States, Argentina, Canada, Brazil, China, Paraguay, India, South Africa, Uruguay, Australia, Romania, Mexico, Spain and the Philippines.
- In the near term, the one single event that is likely to have the greatest impact is the approval and adoption of Bt rice in China, which is considered to be likely in the near term, probably in 2005. The adoption of biotech rice by China not only involves the most important food crop in the world, but the culture of Asia as well. It will provide the stimulus that will have a major impact on the acceptance of biotech rice in Asia and, more generally, on the acceptance of biotech food, feed and fiber crops worldwide. Taking all factors into account, the outlook for 2010 points to continued growth in the global hectareage of biotech crops, up to 150 million hectares (375 million acres), with about 15 million farmers growing biotech crops in up to 30 countries.

An activist group has accused China of producing and selling genetically modified rice that has not been approved for human consumption. Allegedly, the rice has been genetically modified with a gene from *Bacillus thuringiensis*. The bacterial gene, widely used in corn and cotton, allows the plant to produce protein that is toxic to caterpillars. ([BBC News, UK](#))

This news could hurt Chinese growers even if it is not true. Rice is a major export for China, and Japan

is an import buyer. Japan has been adamantly against the importation of genetically modified foods. Additionally, the relationship between the two countries has been unsettled for several weeks due to other reasons. If Japan decides that Chinese rice is possibly contaminated, trade and diplomatic relations between the two nations could suffer.

On a broader scale, this issue could provide additional ammunition for groups that want to slow or halt the production of genetically modified food crops. After all, it is not possible to distinguish Bt rice from other rice without sophisticated analysis. If Chinese farmers were growing modified rice illegally, it may be impossible to keep the rice out of the channels of ordinary trade.

Health and the Environment

How old does a person need to be to safely apply pesticides — 12 years old, 14, 18, 78? How about if the applicator is using or supervising the use of a restricted-use pesticide (RUP)? By definition, an RUP is more hazardous to human health and/or the environment, and federal/state regulations require training and certification for RUP application. Nearly 80 percent of states in the United States have no regulations regarding a minimum age for RUP applicators. Technically, I guess you could send your toddler out to spray paraquat in the yard if you don't mind big dead patches of plants all over.

The Certification and Training Assessment Group (assembled by EPA) has been discussing the situation and offers the following recommendations. The group recommends a minimum age of 18 for commercial applicators and 16 for private applicators, with possible exceptions in the case of hardship. *Maybe the family is facing a plague of locusts, and the only possibility of salvation is a 14 year-old with a spray gun.* In Georgia, a private applicator can apply or supervise the application of RUP on their property (or rental property or property of an employer) for the purpose of producing a commodity. A commercial applicator is anyone else that applies or supervises the application of an RUP. Other states have similar laws.

Of course, writing useful regulations is always difficult. If states adopt these minimum ages, is the state required to certify the ages of RUP applicators or supervisors? How much liability would a state face if they accidentally issued a license to a person below the minimum age, and the applicator was injured by an RUP? How would the new regulations fit with other existing laws regarding child labor?

If you want to make things more complicated, take a close look at a pesticide label. Every label requires that the pesticide be kept out of the reach of children, and pesticide label instructions carry the weight of federal and state regulations. The next time you stop for groceries or drop into your favorite lawn and garden store, look at the pesticides on sale and decide if they are out of the reach of children. In many cases, the answer is a definite "no."

However, there is more (I warned you it was complicated). When does a person move from "child" status to "adult"? *I know that real answer is "never" for many people, but we need a legal definition.* Appropriate ages to define an "adult" could be 21 years old, or 18, or even 16. Unfortunately, if you place pesticides out of the reach of every 16 year-old, many adults would not be able reach them.

Here is the moral of the story. Eventually, the courts will decide the issue during a case that involves a child being injured by pesticides in a store. You do not want to be the store in that situation.



1. At a minimum, store DANGER pesticides away from smaller children. Depending on product sales, a business may decide not to sell DANGER pesticides at all.
2. Use a display that only allows access to grown-up sized people.
3. Copy the tobacco restrictions practiced by some stores. A clerk retrieves the product from storage for the customer. Mock pesticide containers could line the shelves, so customers can read the labels while making a selection.
4. Consider a warning sign in the pesticide section of the store to warn parents of potential risks.
5. Do not display pesticides near toys or other children's items.
6. Never display or store pesticides near food.

I realize rules 5) and 6) sound awfully simplistic, but a local grocery had a prominent pesticide display sandwiched between a display of chocolates and a display of stuffed animals.



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.

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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:

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