



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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Ground-dwelling bees and wasps are the topic of one of our most common calls this summer.

Typically, people simply want to kill them, and gasoline has gotten too expensive to use frivolously for pest management. Since being promoted to full professor, however, I often feel an overwhelming urge to educate somebody instead of simply listing an insecticide. Caution, reading further may cause irreversible erosion of your ignorance.

My first question is “Why do you want to kill the bees or wasps? Typically, the response goes back to the primeval urge of humans to squash any organism that can be covered with one’s shoe, especially any kind of bee, wasp, or spider. It is difficult to overcome this impulse, but entomologists try to convince the public that insects (and spiders) are generally good guys.

Unless the bees/wasps represent a real threat, leave them alone. They are critical for pollination; they help control pests; and they are an important part of the natural ecosystem. Wasps/bees nesting in the ground may be a threat, or they may be harmless. It depends on the particular bee or wasp species.

The bees and wasps that the majority of people recognize (e.g., yellow jackets) live in social colonies that will aggressively attack any perceived threat, such as approaching their nest. However, most bees and wasps do not live in organized colonies, and they do not pose a significant threat to humans. Many of these solitary bees and wasps live in the ground, and a large number of them may live in the same area. Think of it as a neighborhood instead of a commune.

The females of nearly all bees and wasps can sting, but most of them are not aggressive. If a large person with a mask and a baseball bat shows up at my house in the evening, it causes me great concern because I fear they will be aggressive if I open the door. If my preacher shows up at the door with a baseball bat, I let him in. He could hurt me, but he is not likely to be aggressive.

Ironically, the males of solitary bees/wasps are often aggressive, but they cannot sting. Carpenter bees often dive at people that invade their territory near the house. Male solitary wasps can often be seen flying back and forth over the yard. Even if you grab one of these males in your hand, they will not sting because they have no stinger. The stinger is an adaptation of the ovipositor, which is used by the females to lay eggs. The fact that only females have stingers and that the males are all bluster is probably a profound statement about human society, but I won’t get it into that topic here.

You can easily determine if ground-dwelling bees/wasps are solitary or a potentially dangerous hive. Watch the insects from a safe distance; binoculars may be useful. If many bees/wasps are going in and out of the same hole, they are probably yellow jackets or bumblebees. The colony becomes larger and more aggressive as the summer passes. You may need to eliminate the nest if its location threatens your family. Usually, it is not difficult to eliminate a nest in the ground. This web site may help: [Public Health Insect Control Outdoors and Parasites of Man](#).



In the meantime, this picture may help you put your problems in perspective. This yellow jacket nest completely fills this Volkswagen down in SW Georgia. The driver said he noticed the interior seemed to be more crowded but thought he had just gained a little weight. He contacted the University for professional advice; we told him not to honk the horn or drive rapidly on rough roads.

BIOTECHNOLOGY

There was some debate about whether this story about genetically modified wine should be written in this section or “News You Can Use”. For some time, drinkers of red wine have had a ready excuse for the next day’s hangover. Certain chemicals that occur in red wine are reported to trigger headaches in some people. Since this discovery was made, millions of wine users have blamed their post-party headaches on these contaminants and not the alcohol. Scientists have genetically modified the yeast used to make red wine in an attempt to eliminate the chemicals believed to trigger the headaches. The first wines utilizing the new technology will probably be sold in the U.S. soon. Regulations in the U.S. do not require the wines to be identified as containing genetically modified components.

Of course, it would not be the world of wine without the whining. Some experts say the genetically modified yeast affects the flavor of the wine. The wines are not being sold in Europe, and Australia wine makers have taken an official stand against the modified yeast. (GMO Compass, August 2006)

In a related story, I saw my first genetically modified animal (in Walmart of all places). GloFish are the result of a zebra danio (a common aquarium fish) with a couple of jellyfish genes inserted. The resulting animal looks like a danio, but they have a fluorescent glow. After numerous hearings and copious debate, the fish can be sold in every state except California. In some cases, the states had no regulation to prevent the sales of the fish. Proponents say the fish cannot live in the wild and see no harm in creating a curiosity to increase profit in aquarium fish. Critics say that the GloFish opens the door for all kinds of tinkering, “And what’s to stop scientists from tinkering with the genes of dogs and cats, so that they bark less or cease shedding?” (I personally do not think this statement to be a persuasive argument against genetic engineering.)

Even though neither of these stories really concerns pest management, they show how pervasive biotechnology is becoming. Many people are unconcerned when biotechnology affects “someone else”, but they may be uncomfortable with genetic manipulation of wine or animals. Additionally, the GloFish tale illustrates how science can leapfrog past regulation. Science is moving very quickly in this area, and regulation is typically ponderous.

P.S. the jellyfish genes have also been used to create glowing mice, pigs, and at least one rabbit. You can easily find pictures if you surf through cyberspace.

NEWS YOU CAN USE

Repellents with the active ingredient picaridin are now available as an alternative to DEET products. Until recently, repellents containing DEET were the only very effective choice available in the U.S. Products with other active ingredients did not repel mosquitoes and other pests nearly as well as DEET. However, some people were concerned about the potential effects of applying DEET to the skin, and there are some atypical reports of injury. Additionally, DEET is off patent, and many companies sell products with this active ingredient. The situation presented an excellent opportunity for anyone that could introduce an alternative with comparable efficacy.

The Bayer Corporation developed picaridin, and it is now for sale in the U.S. Unlike other DEET competitors, this product is recognized as effective. The U.S. Centers for Disease Control recognize that products containing DEET or picaridin provide longer lasting protection than other products (<http://www.cdc.gov/ncidod/dybid/westnile/RepellentUpdates.htm>). Additionally, the EPA approved picaridin as a reduced-risk pesticide (<http://www.epa.gov/opprd001/factsheets/picaridin.pdf>).

The EPA is offering a variety of free materials to help growers comply with the Worker Protection Standard and to help protect workers against pesticide injuries. Many are available in multiple languages. We apologize for the odd formatting; the information was part of a forwarded e-mail with embedded formatting. Believe it or not, it looks a lot better than it did.

To Obtain Copies:

1. EPA Internet Sites. Many documents are available by downloading from the EPA web sites listed below. Those documents and links are indicated on this list.

2. EPA National Agriculture Compliance Assistance Center
1-888-663-2155,
901 N. 5th St.
Kansas City, KS 66101
Fax: 1-913-551-7270
E-Mail: agcenter@epa.gov

Materials for growers and states about compliance, personal protective equipment and other WPS-related issues are available to order from the Ag Center. Many can be downloaded at <http://www.epa.gov/agriculture/awor.html>.

3. EPA National Service Center for Environmental Publications (NSCEP) 1-800-490-9198,
U.S. EPA
P.O. Box 42419

Cincinnati, Ohio 45242-0419
Fax: 1-513-489-8695
E-Mail: ncepimal@one.net
Online ordering: <http://www.epa.gov/ncepihom/index.htm>

Farmworkers

Protect Yourself from Pesticides/Protejase de los Pesticidas. Poster. A 24 by 36 inch color, safety poster in English and Spanish. Illustrates the 9 basic health and safety messages required by the Federal Worker Protection Standard, including blank areas for listing emergency phone numbers and location of nearest medical facility. 1993. EPA 735-H-93-001.

Protect Yourself from Pesticides Guide for Agricultural Workers/Protejase de los Pesticidas-Guida para los Trabajadores Agrícolas. Handbook. 43-page bilingual, 8 ½ by 11 inch, illustrated handbook in English and Spanish. Presents all information required for training of workers under the Worker Protection Standard. 1993. EPA 735-B-93-002. Currently, limited Xerox copies available. Multiple reprinted copies available in 06. Download at:
<http://www.epa.gov/agriculture/awor.html>

Steps to Protect Yourself from Pesticides. Pocket guide. 23-page, 3 ½ by 5 inch booklet to provide basic pesticide safety information to agricultural workers before they receive full training and as a refresher after full training. 1995.

English/Spanish EPA 735-F-95-(002) <http://www.cdc.gov/nasd/docs/d000701-d000800/d000734/d000734.html>

English/Haitian Creole (003) <http://www.cdc.gov/nasd/docs/d000701-d000800/d000732/d000732.html>

English/Vietnamese (004) <http://www.cdc.gov/nasd/docs/d000701-d000800/d000735/d000735.html>

English/Cambodian (005) <http://www.cdc.gov/nasd/docs/d000701-d000800/d000731/d000731.html>

English/Laotian (006) <http://www.cdc.gov/nasd/docs/d000701-d000800/d000733/d000733.html>

Protect Yourself From Pesticides/Protejase de los Pesticidas. A 8 ½ by 14 inch, black and white, English and Spanish brochure for workers. Condensed version of the safety poster. Illustrates the 9 basic health and safety messages required by the Federal Worker Protection Standard, including blank areas for listing emergency phone numbers and location of nearest medical facility. 1994. EPA 735-F-94-001.

Chasing the Sun/Siguiendo El Sol. Video and CD. 36-minute video in English and Spanish covers basic information about pesticide exposure, regulation and personal protection required for training of workers under the Worker Protection Standard. 1994. Video EPA 735-V-96-002, CD EPA 305-C-04-001.

Chasing the Sun/Siguiendo El Sol with Pesticide Handlers and the Worker Protection Standard combination.

English/Spanish video covering basic information about pesticide exposure, regulation and personal protection required for training of workers, along with English and Spanish pesticide safety training for pesticide applicators, mixers, loaders and handlers of pesticides and equipment under the Worker Protection Standard. EPA 305-V-04-001

Controlling Heat Stress Made Simple/Maneras Sencillas de Controlar la Fatiga Causada por el Calor. Poster. 25 by 22 inch bilingual, color poster for managing heat stress for agricultural workers including, signs, symptoms and treatment of early heat illness to heat stress, program to prevent heat illnesses and how to tell the difference between heat illness and pesticide poisoning. 1995. EPA 750-H-93-001.

Controlling Heat Stress in Agriculture. Laminated pocket card, English. EPA 750-F-95-001. <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OPPTS:1164;&rank=4&template=epa>

Controlar la Fatiga Causada por el Calor en el Trabajo. Laminated pocket card, Spanish, EPA 750-F-95-002.

<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OPPTS:1165;&rank=4&template=epa>

Radio Pesticidas. Six audio tapes, with booklet on how to use this with radio stations and in educational outreach efforts. Mini dramas about key pesticide issues in the field and at home, approximately 2-3 minutes each for radio and educational outreach to farmworkers, Spanish. EPA 735-U-97-001. There will be a CD version of this available soon.

Pesticide Safety for Farmworkers. A CD of 21 one-minute messages for radio and educational outreach to farmworkers, in Spanish. EPA 735-C-02-900.

ESL Pesticide Farm Safety, Student Workbook. A workbook guide for workers designed to teach farmworkers about pesticide and farm safety and learn English. EPA 735-B-97-901.

<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OPPTS:0085;&rank=4&template=epa>

ESL Pesticide Farm Safety Guide for Teachers. A guide for teachers for teaching farmworkers about pesticide and farm safety and learn English. EPA 735-B-97-900.

<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OPPTS:0084;&rank=4&template=epa>

Pesticide Handlers

Protejase de los Pesticidas- Guia para los que Manejan Pesticidas. Handbook. 100-pages, 8 ½ by 11 inch, Spanish guide for training applicators, mixers, loaders and other pesticide handlers under the EPA Worker Protection Standard. 1994. EPA 735-B-94-001. Currently, limited Xerox copies available. Multiple reprinted copies available in 06. Download at: <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OPPTS:0082;&rank=4&template=epa>

Pesticide Handlers and the Worker Protection Standard. Video and CD. English/Spanish. Pesticide safety training for pesticide applicators, mixers, loaders and handlers of pesticides and equipment. Satisfies the training requirements of the Worker Protection Standard. Produced by Michigan State University Extension.

Spanish only video, EPA 735-V-96-001S.

English/Spanish video including the Spanish worker video, Chasing the Sun, EPA 305-V-04-001.

English/Spanish CD not including Chasing the Sun, EPA 305-C-04-002.

A Guide to Heat Stress in Agriculture. Handbook. English. 56 pages, 8 ½ by 11 inch. 1993. EPA 750-B-92-001.

<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OPPTS:1163;&rank=4&template=epa>

Danger Pesticides- Keep Out/ Peligro Pesticidas- No Entre. English/Spanish 14 by 16 inch plastic sign. EPA 735-H-94-001.

Protect Yourself from Pesticides - Guide for Pesticide Handlers. Handbook. 100 pages, 8 ½ by 11 inch, English guide for training applicators, mixers, loaders and other pesticide handlers under the EPA Worker Protection Standard. 1993. EPA 735-B-93-003. Currently, limited Xerox copies available. Multiple reprinted copies available in 06. Download at:

<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OPPTS:0080;&rank=4&template=epa>

Health Providers

Recognition and Management of Pesticide Poisoning. Manual. English. 236 pages, 8 ½ by 11 inch. Guide for health professionals on the health hazards of pesticides and recommendations for treatment of poisonings and injuries (primarily acute effects) of pesticides. 1999, Fifth Edition. EPA 735-R-98-003.

<http://www.epa.gov/pesticides/safety/healthcare/handbook/handbook.htm>

Reconocimiento y Manejo de los Envenenamientos por Pesticidas. Manual. Spanish. 251 pages, 8 ½ by 11 inch.

Guide for health professionals on the health hazards of pesticides and recommendations for treatment of poisonings and injuries (primarily acute effects) of pesticides. 1999, Fifth Edition. EPA 735-R-98-003.

<http://www.epa.gov/pesticides/safety/spanish/healthcare/handbook/handbook.htm>

Compliance Guides to the Worker Protection Standards

Quick Reference Guide to the Worker Protection Standard (WPS). Guide. English. 2 pages. 8 1/2 by 11 inches, Guide for Growers and others interested in provisions of Worker Protection Standard, including all revisions through 2005. November 2005. EPA 305-F-05-005

<http://www.epa.gov/agriculture/qrg.html>

How to Comply With the Worker Protection Standard For Agricultural Pesticides, What Employers Need to Know, Manual. 140 pages, 8 ½ by 11 inch. Revised September 2005. Limit 1 copy per order. EPA 735-B-05 002. <http://www.epa.gov/agriculture/htc.html>

How to Comply With the Worker Protection Standard For Agricultural Pesticides, What Employers Need to Know and Additional Resources, CD-ROM. The CD-ROM version of the revised WPS How to Comply Manual contains several additional compliance assistance tools not available with the printed version including:

- § EPA's WPS Worker Training Handbook (in English/Spanish);
- § EPA's WPS Handler Training Handbooks (in English/Spanish);
- § 13 Additional WPS fact sheets;
- § EPA's Recognition and Management of Pesticide Poisonings Handbook;
- § Several other related references.

November 2005. Limit 1 copy per order. EPA 305-C-05-001.

<http://www.epa.gov/agriculture/awor.html>

The Sustainable Agriculture Network has released “Manage Insects on Your Farm: A Guide to Ecological Strategies”. This primer is designed to help growers make greater use of natural controls. Although different farms face different challenges, some ecological principles can be applied to many situations. The Guide includes these topics.

- ❖ Increasing on-farm diversity above and below ground
- ❖ Encouraging beneficial insects to attack their worst pests
- ❖ Enhancing plants' natural defenses against pests

You can download a copy for free at www.sare.org/publications/insect.htm. If you decide to order, the Guide costs (\$15.95 plus \$5.95 s/h) visit www.sare.org/WebStore, call 301/374-9696 or send check or money order to Sustainable Agriculture Publications, PO Box 753, Waldorf, Maryland 20604-0753. (Please specify title requested when ordering by mail.) Discounts are available on orders of 10 or more.

DON'T DO IT

Recently, a school reported that they planned to use a dust formulation of carbaryl (Sevin) in an attempt to control fleas after other pesticide treatments had failed. The plan was to apply the dust over the weekend and hire professionals to clean up the residue before the children appeared the following Monday. Unfortunately, the Sevin product label does not include indoor applications. In the worst-case scenario, a newspaper headline would scream “Hundreds of Grade-School Children Exposed to Illegal Pesticide Application”. No doubt, someone’s job would be sacrificed.

In good conscience, school officials reported that the label did not prohibit such an application. Until then, it had not occurred to me that other people misinterpret pesticide labels in that manner. After all, many non-pesticidal products state precautions in the negative (“do not use this charcoal grill indoors”).

In the end, the school was reprimanded, and everything returned to normal. The school had made an honest, though foolish, mistake, and they had hired professionals to clean up the residue.

There are two lessons to be learned. 1) Always follow the pesticide label directions; be especially careful around children. 2) Get professional advice from your University Extension Service. Experts are as close as the telephone.

FEDERAL NEWS

Heads up on MSMA, DSMA, CAMA, and cacodylic acid. These herbicides are referred to as organic arsenicals because of their chemical makeup; they are not approved for use in organic production. The EPA is concerned that the arsenic in these herbicides could be converted into an inorganic form after application and be transported to drinking water.

There are two additional problems as well. Simply the word “arsenic” causes people to worry; combine it with “drinking water”, and people are ready to cancel all uses with no additional questions asked. Furthermore, the patents expired on these products years ago, so there is no great economic incentive for any chemical company to fight to maintain the uses of these chemicals.

The Agency has issued a reregistration eligibility document for the organic arsenical herbicides. They are widely used in turf and cotton. If you would like to maintain the use of these chemicals, you can find out how to comment via this website.

<http://www.epa.gov/fedrgstr/EPA-PEST/2006/August/Day-09/p12905.htm>

The above web address is a notice that the RED is available and that comments are due October 10. To find the RED, you need to visit <http://www.regulations.gov> and search for MSMA. It is a little cumbersome, but you can wade through. We will ask EPA if they could link to the supporting documents more directly.

FQPA/REREGISTRATION

The EPA has determined that permethrin products are eligible for reregistration if risk mitigation measures are adopted according to the reregistration eligibility document (RED). Permethrin tolerances (amounts that can legally remain in food/feed) have been found to meet Food Quality Protection Act (FQPA) standards. However, the Agency had other concerns that can be mitigated through label changes. Discontinuing or restricting certain application methods and reducing some application rates addressed residential risks. Occupational handler risks have been mitigated through personal protective equipment or engineering control requirements. Buffer zone requirements and label modifications addressed ecological risks concerns. <http://www.epa.gov/fedrgstr/EPA-PEST/2006/June/Day-28/p5853.htm>. More information on permethrin - <http://www.epa.gov/oppsrrd1/reregistration/permethrin/>.

Permethrin is an insecticide in the pyrethroid group. Pyrethroids are synthetic analogs of pyrethrins (natural products from chrysanthemums). Many of the pyrethroids can be recognized by the “-thrin” at the end of the common name. Permethrin is registered for many commercial and home uses, including food/feed crops, mosquito abatement, pets, and clothing. The EPA is gathering data to perform a cumulative risk assessment for the pyrethroids. When the analysis is complete, the Agency may require additional risk mitigation for permethrin.

PLOWING THE INTERNET

Sometimes people ask me what web sites I bookmark for regular use. You may find some of them useful.

<http://www.cdms.net/manuf/manuf.asp>

You can find many pesticide labels and MSDS here.

<http://muextension.missouri.edu/xplor/agguides/pests/ipm1012.htm>

This site has the most complete information about pesticide storage available.

<http://www.epa.gov/agriculture/>

The EPA ag compliance center is a one-stop shop for a wide range of regulations concerning agriculture.

<http://www.npwrc.usgs.gov/resource/insects/cateast/index.htm>

Caterpillars of the Eastern forests.

<http://extoxnet.orst.edu/>

You can search for nearly any pesticide and get information about human risks, environmental risks, persistence, etc.

<http://www.pestmanagement.rutgers.edu/NJinPAS/postings/EPAcancerevalchem704.pdf>

Information about pesticides that have been investigated for links with human cancers.

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.

Or write us:

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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