DEPARTMENT OF THE ARMY US ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE ABERDEEN PROVING GROUND, MD 21010-5403

PEST MANAGEMENT BULLETIN

The *Pest Management Bulletin*, a quarterly publication of the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) Entomological Sciences Program, is devoted to keeping installation pest management and preventive medicine personnel informed and up-to-date in the rapidly changing field of pest management.

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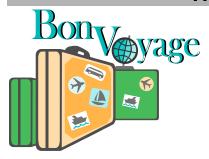
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This Bulletin is designed to keep you informed. Therefore, your comments and suggestions are welcome. If you have a problem, a solution, or a personal observation about any aspect of pest management, please send it to us. Write to the following address: Commander, US Army Center for Health Promotion and Preventive Medicine, ATTN: MCHB-TS-OEN (*Pest Management Bulletin*), 5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5403, or call us at DSN 584-3773 or commercial (410) 436-3773.

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http://chppm-www.apgea.army.mil/ento

THE END OF AN ERA



This issue of the Pest Management Bulletin is the last one that Ken Olds will be preparing and distributing. After a stellar 30-year career with the US Army Center for Health Promotion & Preventive Medicine (USACHPPM), Ken will be leaving us and heading to Santa Fe, New Mexico where he and his wife, Maria, have built a lovely new home.

It was in June of 1973 that Ken arrived bright-eyed and bushy-tailed, with a Master's Degree from California State University in Long Beach, California, and began his employment as an entomologist with USACHPPM, which at that time was called the Army Environmental Hygiene Agency (USAEHA). Ken's initial responsibilities consisted of conducting pesticide monitoring surveys and performing pesticide analysis of collected environmental samples.

In April of 1976, Ken's duties were expanded to include the preparation of environmental sampling plans, coding environmental sampling data for data processing, and coordinating the statistical analyses of this data.

From December 1981 to June 1984, Ken served as the Project Manager responsible for the compilation and reporting the results of air monitoring for pesticide concentrations from Army households resulting from past or recent termite treatments. Ken wrote computer programs in BASIC to manage the data and quickly became a recognized computer "guru" throughout the organization.

It was in June of 1984 that Ken was hired to replace me as the Pesticide Coordinator, with responsibilities to maintain the DoD Pesticide Hotline, and to prepare and distribute the quarterly Pest Management Bulletin. Ken quickly established himself as the subject matter expert for all questions related to pesticide use and disposition. Not only was he considered the expert within DoD, but he also became a tremendous source of information and assistance to other Federal agencies, to include the State Department, the National Park Service, and the Forest Service.

For the past 19 years, Ken has performed admirably as the voice of the DoD Pesticide Hotline. His extensive knowledge and strong customer-service attitude has made him an invaluable asset to pest management personnel throughout the world. This particular Bulletin will be the 76^{th} issue that Ken has prepared, a truly admirable accomplishment when you realize the wealth of information that Ken has provided over these many years.

There are no words that will adequately describe the positive impact that Ken has had on the activities of the Entomological Sciences Program for the past 30 years. Suffice it to say, that he has truly been a tremendous asset and his departure will create a

huge void to fill. We will be hiring a replacement for Ken in the near future. However, until that person is on board, please continue to call the Pesticide Hotline and we will do our best to answer those questions for you.

I know you join me in wishing Ken and his wife, HAPPY TRAILS and our best wishes for many happy, healthy, and productive years in Santa Fe.

Ed Evans

GOODBYE



I had a long article prepared about my impending retirement and the previous article that Dr. Evans wrote stole most of my thunder. Thank you Ed for such glowing remarks.

As Ed mentioned, I have spent these last 30 years here at CHPPM (formerly AEHA) and have spent 19 of those years with the DoD Pesticide Hotline. Over these years I have developed

wonderful friendships with many of you. I have had the privilege to work with some of you in person. Others of you I have established lasting friendships by our use of the phone and or e-mail. I look back with very fond memories over these past years and treasure these friendships. These years of being involved with the Hotline have proven to be a wonderful experience. I have learned so much in working with all of you, and I hope that over the years, I have been able to help you in some way as well. I will always have very pleasant memories of these last 30 years and of all of you. My best to each of you.

Ken Olds

FORCE HEALTH PROTECTION CONFERENCE



The Sixth Annual Force Health Protection Conference, hosted by the U.S. Army Center for Health Promotion and Preventive Medicine, will be held 11 - 17 August 2003, at the Convention Center in Albuquerque, New Mexico. The theme for the conference is Force Health Protection – A Military Imperative. The core conference will consist of 9 specialty tracks: VA Veterans' Health, Ergonomics, Environmental Sciences,

Advanced Sciences, Occupational and Preventive Medicine, Health Physics and Radiological Sciences, Industrial Hygiene, Population Health and Well-being, and Behavioral Health. There is no registration fee, however, attendees are responsible for their travel and per diem costs. Information on the conference can be found on the FHP website at: http://chppm-www.apgea.army.mil/fhp.

CHILDREN AND INSECT REPELLENTS

We have received numerous inquiries about the use of insect repellents on children. Ms. Sandra Evans of this office, compiled the following information that may assist parents in deciding what to do concerning this issue.

The American Academy of Pediatrics (AAP) provides guidance on the use of DEET on children. The Academy has published three articles. They may be found at the following websites:

http://www.aap.org/family/wnv-aug01.htm

http://www.aap.org/family/wnv%2Dsept02.htm

http://www.aap.org/family/wnv%2Dexcerpt.htm

Here is an excerpt from the article they published in August 2001:

• "Do not apply to infants under 2 months of age (skin permeability becomes similar to adult values by the second month of life)."

"...studies indicate that products with lower concentrations of DEET are not necessarily safer for children than those with higher concentrations. Therefore, the EPA no longer allows claims that products are specifically indicated for children. A product's ability to repel pests also is a consideration. Data indicate that DEET products with concentrations of about 30% are more protective than lower concentration products. In addition, concentrations higher than 30% do not confer much additional protection but last longer, e.g., eight to 12 hours.

It would seem appropriate, therefore, to use products with concentrations around 30% for adults and children. Products with lower concentrations (10% to 15%) can be used for children, if families are concerned about the potential risks of DEET and there is little or no concern about the transmission of malaria, encephalitis or other major vector-borne diseases."

This article is similar, dated Sept 2002. Here are some excerpts:

• "Do not apply to infants under 2 months of age."

"Studies show insect repellents with a DEET concentration of 30% are more protective than lower concentrations, but that concentrations higher than 30% do not provide more protection. They simply last longer. In response to these findings, the Academy says a

30% concentration is safe for adults and children, but that 10% can be used for children if parents are concerned about the potential risks or if the threat of disease-carrying mosquitoes is small."

This is slightly older information *Excerpted from AAP Handbook of Pediatric Environmental Health, First Edition; "Pesticides" chapter;* 1999; pages 208-211.

"Q: Is an insect repellent containing DEET safe for use on my children?

A: DEET is the active ingredient in most insect repellents. While it is generally used without any problems, there have been rare reports of side effects. Usually, these problems have occurred with excessive use. DEET should be used in areas where there is concern about illness from insect bites. It can also be used when insects are likely to be a nuisance such as at barbecues or at the beach.

No definitive studies exist in the scientific literature about what concentration of DEET is safe for children. The efficacy of DEET plateaus at a concentration of 30%. A cautious approach is to use a low concentration, 10% or less, on children. "

You may also want to visit the following CDC website: http://www.cdc.gov/ncidod/dvbid/westnile/qa/insect_repellent.htm

Finally, the following excerpt is from the "2001 International Travel Health Guide" by Stuart Rose, M.D.at http://www.travmed.com/thg/travel_health_guide.htm

"What Should the Traveler Do?

The *HealthGuide* believes that travelers (including children) who are visiting areas where insect-transmitted infectious and tropical diseases are found should use a repellent with a DEET concentration of 20%–35%. Under conditions of high temperatures or humidity, which increases loss of repellent from the skin surface, or when there is intense insectbiting activity, higher concentrations of DEET may be justified. Choosing a controlled-release formulation of DEET (Ultrathon or Sawyer's Controlled Release) is another way to prolong the efficacy of a repellent without requiring the use of DEET concentrations over 35%. There is no convincing evidence that infants and children are harmed by DEET if the repellent is used according to the label. If parents choose to use a low concentration DEET repellent on their children, additional measures of protection, like permethrin-treated clothing, mosquito nets, and elimination of indoor insects, should be used."

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TICK AND FLEA COLLARS NOT FOR HUMANS



The recent conflict in Iraq revitalized the issue of troops wearing tick and flea collars to help control "sand fleas." The use of these collars for this purpose is not in accordance with label instructions and therefore illegal. Also, using these collars in this manner can cause skin damage. We have prepared a Fact Sheet about the use of these collars. It is available at:

http://usachppm.apgea.army.mil/ento/FACTS/FleaNtickCollars.doc.

Also, the Armed Forces Pest Management Board has issued a press release on the collars. This may be found at:

http://usachppm.apgea.army.mil/ento/FleaNtickCollarPressRelease.doc

IT'S IN THE NEWS

Bug trap catches fire

Third occurrence in Chapel Hill

By AISLING SWIFT, Staff Writer

CHAPEL HILL -- A leak from a propane-powered mosquito trap caused a fire at a Pinehurst Drive home Tuesday, but only the trap was destroyed, firefighters said.

It was the third time since spring 2002 that Chapel Hill firefighters have responded to a fire caused by a Coleman Mosquito Deleto, said Chief Barry McLamb. In this case, the trap was a modified version manufactured after a July recall of 136,000 units -- a recall McLamb said was prompted by a Chapel Hill home being destroyed by fire last year. "People need to be really, really careful with these products," he said. "You're turning on a propane-filled heating element, and it's supposed to sit out all month, 24 hours a day. It obviously has many problems."

Firefighters were called to the home at 1109 Pinehurst Drive at 1:30 p.m. and arrived to find the mosquito trap in flames, said Capt. Norman Clark. "It appears to have been off, and it malfunctioned," he said. "The fire was confined to the unit."

The homeowner, whose name was not released, was not at home.

McLamb said the homeowner had purchased a modified version of the recalled product and followed directions, which caution homeowners to keep the unit away from houses. He said the unit was placed far from the home, near a wooded area.

On June 4, a house on the 2400 block of Honeysuckle Road in the Booker Creek neighborhood burned to the ground after a Mosquito Deleto caught fire, which spread to nearby items and to the home. "We ended up losing the house," McLamb said. "It was so far ahead of us before we got a report that it was beyond us when we arrived. That was one of the ones that caused a recall."

McLamb said Coleman sent investigators to probe the blaze, which followed another that spring in which a play structure in a back yard was reduced to a charred mass when a Mosquito Deleto was placed under it.

Last July, after receiving 28 reports of traps melting or catching fire, Kansas-based Coleman Co. recalled about 136,000 Mosquito Deletos under the names "Portable System" and the "Back Home System." They had discovered their regulators can leak propane or allow an overflow of propane, posing a fire hazard. Also, a fuel hose attachment sold with the Back Home System can become damaged and leak propane.

The recalled versions, which cost \$170 to \$200, were sold from March 2002 to July 2002 and had model numbers 2950-800 and 2950-801. The roughly 2-foot-high traps have a green or gray base and top and a black center, and their hoses are attached to 1-pound or 20-pound propane cylinders. The traps burn propane to generate heat and carbon dioxide, which attracts mosquitoes that get caught on an adhesive paper strip.

The federal Consumer Product Safety Commission said consumers should stop using the mosquito traps and propane hoses and contact Coleman at (800) 257-5299 to find out whether their traps need to be replaced or repaired. The Consumer Product Safety Commission does not list any recalls for the modified units.

For more information, go to www.cpsc.gov/cpscpub/prerel/ prhtml02/02200.html.

Praying mantis wreaks havoc

08 May 2003 By CHRIS SCHULZ

A small praying mantis caused a shattering car accident when it crawled on to the face of a young driver on Tuesday.

In attempting to swat the insect away, the woman swerved into the path of an oncoming van, fully loaded with glass panes, a Fire Service spokesman says.

Police later found the praying mantis sitting on the dashboard of the woman's car and took photographs of it.

The two vehicles crashed head on, spewing glass across East Coast Rd.

The glass van, belonging to the Auckland Glass Company, rolled and landed on a grass verge while the woman's Mazda Familia came to rest in the middle of the road.

East Coast Bays firefighters arrived to find chaos. Broken glass was everywhere, a man was trapped in an upside-down van and a bloodied and bruised woman was wandering around.

Traffic was also banking up along the busy main road.

Station officer Steve Callagher says the woman smacked her nose on the steering wheel during the accident, causing cuts and bruises. She was treated by ambulance officers at the scene before being taken to North Shore Hospital.

Two die from poisoned noodles

05may03

TWO children were killed and five others left ill in northern Gansu province after eating a packet of instant noodles laced with rat poison, state press said.

Police in Weiyuan county were investigating how the rat poison got into the noodles, including the possibility that one of the children may be responsible, the China Daily reported.

A three-year-old girl was still in a critical condition while the other four surviving children were out of danger, the report said.

The package of Huaxiang noodles was purchased in Zhangjiawan village on May 1 by a 10-year old girl who was also poisoned after sharing the noodles with her playmates.

The report did not say if she was one of the fatalities.

After showing symptoms of poisoning, such as vomiting, twitching and dizziness, the children were rushed to the county hospital where emergency doctors discovered the poison in the stomachs of all seven of them.

Police have discounted the possibility that the noodles had been laced with poison at the factory because no other cases linked to Huaxiang noodles have been discovered, the report said.

Rat poison is readily available in China and has featured in a series of recent criminal poisonings.

In one of the worst cases, 42 people died last September in the eastern city of Nanjing after buying a rat poison laced breakfast from a snack shop.

In that case, the envious owner of a rival shop was executed after police said he confessed to contaminating the food.

New York Sues Dow for Calling Dursban Safe

PANUPS

Pesticide Action Network Updates Service

April 18, 2003

Dow Agrosciences is the target of legal action by the state of New York for falsely advertising the pesticide Dursban as "safe."

In early April 2003, New York's state attorney announced that he will sue the pesticide producing subsidiary of Dow Chemical Company for breaching a 1994 agreement against false advertising. The lawsuit, to be filed in the New York Supreme Court, will seek a court order directing the company to stop deceptive advertising. The state is also seeking monetary damages in the range of "tens of millions" of dollars. Dow maintains that the charges are unwarranted.

Labels for Dursban continue to claim the safety of the product despite the documented toxicity of its active ingredient, chlorpyrifos. Exposure to chlorpyrifos can lead to a range of symptoms, including excessive salivation and tearing, uncontrolled urination, weakness, nausea, vomiting, diarrhea, headaches, pinpoint pupils, confusion and dizziness. Tremors, convulsions or respiratory paralysis may occur at higher doses, sometimes leading to coma and death. These neurological effects of exposure are caused by the chemicals ability to block the function of cholinesterase, an enzyme necessary for the proper transmission of nerve impulses.

According to New York State Attorney Eliot Spitzer, the state's 1994 agreement with Dow specified that the company was to stop making public claims that Dursban was "safe." Spitzer notes that such unsubstantiated safety claims are also prohibited by state and federal law.

Chlorpyrifos is a suspected endocrine disruptor, with potential to interfere with the natural function of estrogen, androgen and thyroid hormones. There are no data suggesting that chlorpyrifos is a human carcinogen or reproductive toxicant.

Chlorpyrifos is an insecticide used on agricultural crops, livestock and until very recently for home pest control as well (primarily as a termiticide and in pet flea collars). The U.S. Environmental Protection Agency estimates that about 20 million pounds of chlorpyrifos were applied in the U.S. in the year 2000, about half for agricultural uses and half for residential uses. Approximately half of all agricultural applications are in corn production.

Home use products containing chlorpyrifos are being phased out, with most uses banned by the end of 2002. Some residential and other non-agricultural use of chlorpyrifos will continue, including mosquito control, outdoor areas where children's exposure is unlikely, and container baits in homes. Agriculturally, the pesticide's use on apples and grapes has been restricted and use on tomatoes was eliminated in 2000, but many other uses continue.

Chlorpyrifos was also highlighted in a recent report from the Centers for Disease Control and Prevention (CDC) which measured chemicals in the blood and urine of the U.S population. The CDC report documented metabolites of the pesticide chlorpyrifos in study subjects, and found particularly high levels of the chemical in children age 6-11 years (PANUPS, February 14, 2003,

http://www.panna.org/resources/panups/panup 20030214.dv.html).

In 1997, the New York State Attorney General filed a lawsuit against Monsanto arguing that the company's advertising inaccurately portrayed Monsanto's glyphosate-containing products (brand name Roundup) as safe and not causing any harmful effects to people or the environment. As part of an out-of-court settlement, Monsanto agreed to discontinue use of terms such as "biodegradable" and "environmentally friendly" in all advertising of glyphosate-containing products in New York state and paid US\$50,000 toward the state's costs of pursuing the case.

Sources: Press Release, New York Attorney General's Office "State to Sue Pesticide Manufacturer Over Misleading Ads: Dow Chemical Co. Subsidiary to Renege on Earlier Agreement" April 2, 2003; Reuters "NY sues Dow unit over pesticide advertising" April 4, 2003 http://www.planetark.org/dailynewsstory.cfm/newsid/20371/story.htm; PANUPS, January 10, 1997.

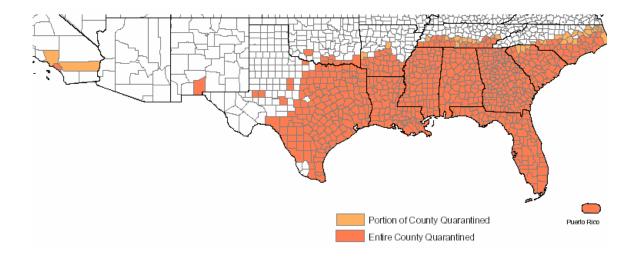
For more information on Chlorpyrifos, visit:

http://www.panna.org/resources/documents/factsChlorpyrifos.dv.html and http://www.pesticideinfo.org/.

FIRE ANT QUARANTINE AREAS



The following map showing the quarantine areas for the imported fire ant. This map was extracted from a brochure titled *Imported Fire Ant 2003: Quarantine Treatments for Nursery Stock and Other Regulated Articles* (Program Aid No. 1736) and can be obtained from the USDA/APHIS website: http://www.aphis.usda.gov/oa/pubs/ifapub.pdf. The brochure provides current information on the regulated articles and the approved pesticides for the treatment of these articles.



FIRE ANT CONTROL STUDIES



IMPORTED FIRE ANT PROJECT, FORT JACKSON, SOUTH CAROLINA

Update: 27 May 2003

The Imported Fire Ant Integrated Pest Management (IPM) Project at Fort Jackson, South Carolina, which began June 5, 2000, is a collaborative effort between the USDA-ARS-Center

for Medical, Agriculutral, and Veterinary Entomology; EPA-OPPTS/BPPD; DoD (Army Environmental Center, CHPPM, TRADOC); South Carolina Army and Air National Guard; Clemson University; Southern Legislative Conference (SLC); and Aventis Corporation.

The goal was to determine if the use of biological control agents (the microsporidium, *Thelohania solenopsae*, and decapitating phorid flies) would decrease the need for pesticide use.

In June of 2000, three treatments blocks were set up. Block A had chemical treatment with fipronil and the release of the biocontrol agents. Block B had fipronil alone and Block C had no treatments.

We just completed the sixth and final evaluation. While data analysis has not been competed the results of the study have been obvious and fantastic. The fire ant populations in Block C, control, remained about the same, as would be expected. The fire ant populations in Block B have rebounded significantly and in fact reached such a level that additional pesticide treatment would have been warranted as early as October 01. In contrast, the fire ant populations in Block A are still, after almost 3 years, below the treatment threshold with no additional pesticide application. In addition, the biocontrol agents have spread significantly and appear to be established in the area. Another exciting development in Block A is that native ant species have reestablished themselves in the fipronil treated area, which will further delay the reinfestation by the

imported fire ant.

This project demonstrates that currently available biocontrol agents can contribute significantly to an integrated imported fire ant control program and reduce the need for pesticide application. As part of this project a manual is being produced that will detail the steps necessary for the successful release and establishment of these biocontrol agents.

For more information on this subject, please contact: Brian C. Zeichner USACHPPM ATTN: Entomological Sciences Program E5800 40th Street APG, MD 21010-5403

(410)436-3613 DSN 584-3613 Fax -2037

UPCOMING EVENTS



For additional meetings, please visit these sites:

Other meetings from Colorado State WWW
Other meetings from Pest Control Technology Online

* * * * 2003 * * * *

June, July, August, September, October, November, December

* * * * * 2004 * * * *

January, February, March, April, May, June, <u>July</u>, <u>August</u>, September, October, <u>November</u>, December

* * * * 2003 * * * *

JUNE

- 3 4 June 2003. **Pest-Ex 2003**, The Pavilion, National Exhibition Centre, Birmingham, UK. Contact: 44 (0) 1332 225114 or email christine@bpca.org.uk or visit the website at http://www.bpca.org.uk/
- 3 5 June 2003. **Sixth Fumigants & Pheromones International Technical Conference and Workshop**, Copenhagen, Denmark. Contact: David Mueller, 317-896-9300 or Insectsltd@aol.com or Henrik Lange, lange@tanaco.dk or visit www.insectslimited.com

- 19 21 June 2003. **National Pest Management Association Academy 2003**, Westin Kierland Resort, Scottsdale, AZ. Contact 800-678-6722 or visit www.pestworld.org.
- 22 25 June 2003. **National Association of Environmental Engineers 28th Annual Meeting**, Adams Mark Riverwalk, San Antonio, TX. Contact: 863-679-3852 or e-mail conference@NAEP.org or visit the website at www.naep.org/CONFERENCE03/SanAntonio.html
- 24 26 June 2003. **Florida Pest Management Association Annual Convention**, Registry Resort, Naples, FL. Contact: 407-293-8627 or visit www.flpma.org.
- 27 June 2003. **Missouri Pest Control Association Board Meeting**, Jefferson City, MO. Contact: 800-848-MPCA.

JULY

24 – 26 July 2003. **Mid-Atlantic Conference**, Westin Hilton-Head Island, SC. Contact 800-678-6722 or visit www.pestworld.org

AUGUST

23 – 27 August 2003. **Association of Structural Pest Control Regulatory Officials** annual meeting, Sacramento, CA. Contat: <u>infor@aspcro.org</u> or 765-494-1585.

SEPTEMBER

21 – 24 September 2003. **Responsible Industry for a Sound Environment** annual meeting, Ritz-Carlton Golf Resort, Naples, FL. Contact 202-463-0474.

OCTOBER

- 5 8 October 2003. **Society for Vector Ecology** annual meeting, Couer d' Alene, ID. Contact: 909-340-9792 or www.sove.org.
- 22 25 October 2003. Pest **Management '03**, Wyndham Anatole, Dallas, TX. Contact: 800-678-6722 or www.pestworld.com
- 26 October 30 October 2003. **ENTOMOLOGICAL SOCIETY OF AMERICA ANNUAL MEETING**, Cincinnati, OH, USA. Contact: ESA, 9301 Annapolis Rd., Lanham, MD 20706-3115, USA. E-mail: <esa@entsoc.org>. Fax: 1-301-731-4538. Website: www.entsoc.org. Phone: 1-301-731-4535.

NOVEMBER

November * BRIGHTON CROP PROTECTION CONFERENCE 2003, Brighton, UK. Contact: The Event Organization, 8 Cotswold Mews, Battersea Square, London

SWll 3RA, UK. E-mail: <<u>eventorg@event-org.com</u>>. Fax: 44-171-924-1790. Website: <u>www.BCPC.org</u>

19 – 21 November 2003. **PCT Termite Management Summit**, JW Marriott Hotel, Houston, TX. Contact: 800-456-0707 or go to www.pctonline.com and click on "Events."

DECEMBER

4 – 5 December 2003. **Missouri Pest Management Association Annual Meeting and Recertification**, Adams Mark Hotel, Kansas City, MO. Contact: 573-761-5771.

No date **ANNUAL MEETING, SOCIETY OF NEMATOLOGISTS**, Ithaca, NY, USA. Contact: W. Brodie, USDA-ARS, Dept. of Plant Path., 334 Plant Science, Cornell Univ., Ithaca, NY 14853, USA. E-mail: <BBB2@cornell.edu>. Fax: 1-607-255-4471. Phone: 1-607-272-3745.

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JULY

24 July - 28 July 2004. **AMERICAN PHYTOPATHOLOGICAL SOCIETY ANNUAL MEETING**, Spokane, WA, USA. Contact: APS, 3340 Pilot Knob Road, St. Paul, MN 55121-2097, USA. E-mail: aps@scisoc.org>. Fax: 1-612-454-0766. Website: http://www.scisoc.org/>.

AUGUST

15 August - 21 August 2004. **22nd International Congress of Entomology**, Brisbane, Australia. Contact: http://www.ice2004.org/

NOVEMBER

7 November - 11 November 2004. **ENTOMOLOGICAL SOCIETY OF AMERICA ANNUAL MEETING** Salt Lake City, UT, USA. Contact: ESA, 9301 Annapolis Rd., Lanham, MD 20706-3115, USA. Fax: 1-301-731-4538. E-mail: <esa@entsoc.org>. Website: http://www.entsoc.org/>..

COURSES FOR DOD CERTIFICATION



The schedule of DOD certification and re-certification classes being offered may be found on the DOD Pest Management Board Website at:

http://www.afpmb.org/pubs/courses/courses.htm

DOD STOCK LISTED PESTICIDES



The updated list of DoD Stock-listed pesticides can be found in <u>Appendix B</u>. Please note that changes are listed in bold. The most current list can always be found on the AFPMB web page at: http://www.afpmb.org/standardlists.htm

DOD EQUIPMENT LIST



The list of DOD Pest Management Material Other Than Pesticides may be found on the AFPMB website at: http://www.afpmb.org/standardlists.htm

DOD CONTINGENCY PESTICIDE LIST

The DoD Contingency Pesticides list may be found on the AFPMB website at: http://www.afpmb.org/standardlists.htm



ON THE LIGHTER SIDE

Some Final Thoughts



- 1. If you yelled for 8 years, 7 months and 6 days you would have produced enough sound energy to heat one cup of coffee.
- 2. The human heart creates enough pressure when it pumps out to the body to squirt blood 30 feet.
- 3. A cockroach will live nine days without its head before it starves to death.
- 4. Banging your head against a wall uses 150 calories an hour.
- 5. The male praying mantis cannot copulate while its head is attached to its body. The female initiates sex by ripping the male's head off.
- 6. The flea can jump 350 times its body length. It's like a human jumping the length of a football field.
- 7. The catfish has over 27,000 taste buds.
- 8. Some lions mate over 50 times a day.
- 9. Butterflies taste with their feet.
- 10. The strongest muscle in the body is the tongue.
- 11. Right-handed people live, on average, nine years longer than left-handed people.
- 12. Elephants are the only animals that cannot jump.

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- 13. An ostrich's eye is bigger than its brain.
- 14. Starfish have no brains.
- 15. Polar bears are left-handed.
- 16. Humans and dolphins are the only species that have sex for pleasure.