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US ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE
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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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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>

HOLIDAY GREETINGS



This issue of the Pest Management Bulletin begins the 24th year of publication. Over the years, we have tried to provide timely information to the Department of Defense pest management community. To that end, if you have an item that you would like us to present in the Bulletin, please let us know. We would be happy to work with you to include your item.

We would like to take this opportunity to wish you and your family a safe and prosperous New Year.

IT'S IN THE NEWS



Breast Cancer and Pesticides

A study released in early August has established that there is no connection between breast cancer and pesticides that were historically used on Long Island, NY. This congressionally mandated project, funded by the National Cancer Institute and National Institute of Environmental Health Sciences, examined the possible links between breast cancer and pesticides such as DDT, chlordane, and dieldrin. The University of North Carolina researchers found no evidence supporting an association between organochlorines pesticides and heightened risk of breast cancer. A second study examining the link between breast cancer and polycyclic exhaust and cigarette smoke, found a “modest elevation” in breast cancer risk for exposed women. The 3,000 participant study is considered the largest of its kind (*Chemical Regulation Reporter*, Vol. 26, No. 32)

Court Reverses Hantavirus Damages

DENVER (AP) - A federal appeals court in October reversed a \$2 million award to relatives of a New Mexico man who died from hantavirus after a hospital misdiagnosed his ailment.

The 10th U.S. Circuit Court of Appeals ruled that New Mexico laws limiting medical malpractice damage awards to \$600,000 should apply because the hospital was not responsible for causing the hantavirus. The liability of the hospital was not an issue in the lawsuit.

The suit was brought by the family of Hardy Haceesa. U.S. District Judge Martha Vazquez awarded Haceesa's widow and young daughter \$2.1 million in damages last year.

Haceesa died in 1998 at age 23, three days after a nurse practitioner at the Northern Navajo Medical Center told Haceesa he had bronchitis and sent him home.

Vazquez ruled the hospital was negligent for not ensuring its emergency room workers were trained to recognize hantavirus, a rodent-borne viral disease with symptoms that are sometimes confused with the flu.

Most bug repellent gadgets useless, experts say

LAURIN SELLERS

Knight Ridder Tribune News Service

ORLANDO - They sound like the wares of a traveling medicine man: lotions, patches, grids, coils, candles, incense, mysterious ultrasonic gadgets that promise to protect, kill, distract, confuse, attract or repel.

As fears mount over West Nile and other deadly mosquito-borne viruses, so do the number of weapons in the war on the insects.

Trouble is, experts warn, the arsenal is full of duds.

"It's overwhelming for the consumer," said Jonathan Day, a leading mosquito expert and professor at the University of Florida's Medical Entomology Laboratory in Vero Beach. "There are some products out there that work, but there are a number that absolutely do not."

The worst, experts agree, are the ultrasonic gadgets - small devices worn on the wrist or clipped to a key chain. Manufacturers say the devices emit noises mimicking the wing-beating sound of male mosquitoes or the mosquitoes' archenemy, the dragonfly.

The sounds supposedly send biting female mosquitoes fleeing in fear.

"They are completely useless," said Dawn Wesson, an associate professor of tropical medicine at Tulane University.

They're also potentially dangerous, according to the Federal Trade Commission.

Earlier this year, the FTC charged Orlando-based Lentek International Inc. with false advertising for claiming its "MosquitoContro" ultrasonic products protected against the West Nile virus.

Experts are equally skeptical of devices that claim to emit a scent that mosquitoes hate and grids that release an odor that "confuses mosquitoes."

Backyard bug zappers also are a bust - but not because they don't attract bugs.

"The back yards with zappers had more mosquitoes than the yards without them," Day said. "They attracted more mosquitoes than they killed."

They also zap indiscriminately, leaving behind a charred carnage of butterflies, beetles and other beneficial bugs.

The biggest sellers this year were the baited traps that emit carbon dioxide or Octenol, mimicking human breathing. One trap, the SonicWeb, even thumps like a human heart and radiates heat, imitating the body heat of a warm-blooded victim.

Mosquitoes lured to the make-believe, heart-thumping human are supposedly sucked inside and hopelessly mired in "sophisticated glue," the product claims. Cost: \$300 to \$350.

Citronella candles and smoking coils work for a short time, but not as well as a campfire.

Clothing treated with Permethrin offers adequate protection, especially while hiking and camping, but also is expensive and impractical for everyday use, Day said.

And while some folks swear by home remedies like gulping mega-doses of vitamin B or slathering on herbal concoctions, the experts are not among them.

"Even bath oils will work for about five minutes, but most people want protection for at least four to six hours," Day said.

The only product that provides that kind of coverage has been around for half a century.

Most mosquito experts, including scientists at the Centers for Disease Control and Prevention in Atlanta, agree that the best protection, other than staying indoors, is using a repellent containing DEET.

Although a small number of adverse reactions have been linked to misuse or overuse of the chemical, DEET is safe if used in low concentrations - no more than 10 percent for children and 33 percent for adults, said Dave Daigle, a CDC spokesman. Repellents containing DEET should not be used on infants, he said.

Still, scientists at universities and laboratories across the country are scrambling to find the perfect product - a repellent that doesn't stink, feel greasy or pose possible health risks.

A professor at North Carolina State University announced earlier this year that he had discovered a mosquito repellent safer and more effective than DEET. Michael Rowe said he stumbled on the natural component by accident on the leaves of wild tomatoes growing in the mountains of Ecuador.

Experts are awaiting the results of field data on the substance before commenting.

Woman Claims West Nile From Sex

10/29/2002 - Updated 08:20 PM EST

DENVER (AP) - A Colorado woman said Tuesday she believes she contracted the West Nile virus through sexual contact with her infected husband.

Health officials said they have no evidence the disease can be spread sexually, but won't rule out the possibility.

"We aren't going to be able to confirm or rule out that possibility since she was also in the area where her husband and son may have been infected. She was probably infected by a mosquito," said John Pape, an epidemiologist with the state Department of Public Health and Environment.

"But clearly we can't discount other theories now that we've seen the evidence of blood transmission," he said.

Jennifer Lei, 42, said she accompanied her husband and 18-year-old son on a Labor Day hunting trip to eastern Colorado but stayed just a day and protected herself from mosquitoes.

Edward and Jacob Lei came down with symptoms of the virus within a week of the trip and tested positive for West Nile last month. Jennifer Lei tested positive earlier this month.

The federal Centers for Disease Control and Prevention said there is no scientific evidence that West Nile can be transmitted sexually. However, health officials have said there is evidence that the virus can be spread through blood transfusions, and possibly through organ donation or even breast milk, all involving the exchange of bodily fluids.

West Nile first appeared in the United States in 1999, and has killed scores of horses and birds since then. It has infected 3,399 people in 39 states so far this year and killed 193, according to the CDC.

The virus is mostly spread through mosquito bites. In humans, the disease can cause flu-like symptoms and swelling of the brain that can be fatal. Most people bitten by an infected mosquito don't become ill.

Possible West Nile Virus Transmission to an Infant Through Breast-Feeding --- Michigan, 2002

On September 2, 2002, a woman aged 40 years delivered a healthy infant but required transfusion of two units of packed red blood cells (RBC) for anemia. The patient received the first unit 6 hours after delivery and the second on the following day. The second transfusion was derived from the same donation as a unit of platelets given to a liver transplant recipient who developed confirmed West Nile meningoencephalitis (WNME). Approximately 2 hours after delivery, the patient developed a migraine headache, photophobia, and anemia. The patient had a history of migraine headaches. When she was discharged 2 days after delivery, her headache was resolving. Eight days later, the patient developed a severe, persistent headache that differed qualitatively from her

migraine headache. Twelve days after delivery, the patient reported developing fever, and 3 days later she was admitted with a fever of 102.8° F. She subsequently tested positive for West Nile Virus, recovered and was discharged from the hospital.

On the day of delivery, the mother began breast-feeding her child and continued (i.e., 6 days after symptom onset) through the second day of the hospitalization for West Nile Virus. An undiluted sample of breast milk, obtained 16 days after delivery, and a second sample of breast milk, collected 24 days after the implicated transfusion, also tested positive for West Nile Virus. The mother reported that the infant has had little outdoor or other exposure to mosquitoes.

Update: Investigations of West Nile Virus Infections in Recipients of Organ Transplantation and Blood Transfusion --- Michigan, 2002

On September 27, 2002, this report was posted on the MMWR website (<http://www.cdc.gov/mmwr>).

CDC, the Food and Drug Administration (FDA), the Health Resources and Services Administration (HRSA), and state and local health departments continue to investigate West Nile virus (WNV) infections in recipients of organ transplantation and blood transfusion. This report summarizes two investigations of Michigan recipients of blood products, one of whom also received a liver transplant. Both persons tested positive for WNV infection after receiving blood products derived from a single blood donation subsequently found to have evidence of WNV.

On August 14, 2002, a man aged 47 years received a liver transplant and 24 units of blood products (9 units of fresh frozen plasma [FFP], 5 units of red blood cells [RBC], and 10 units of platelet concentrate [PC]). On August 20 and 21, he received 15 units of PC. After being discharged from the hospital on August 24, he was readmitted 10 days later with fever; and he subsequently developed encephalopathy. A lumbar puncture revealed WNV IgM antibody. The patient recovered and was discharged.

On September 2, a woman aged 40 years delivered a healthy infant. The same day, she received one unit of RBC, and on September 3, she received another unit of RBC. She was discharged on September 4. She had intermittent nausea, malaise, and fever, and was readmitted to the hospital 13 days after discharge. On September 18, the patient had a fever of 102.8° F (39.3° C). A lumbar puncture revealed WNV IgM antibody.

West Nile identified in alligators for the first time

Article published Nov 13, 2002

University of Florida researchers have identified the West Nile virus in three Florida alligators, the first time the disease has been observed in the North American species.

State public health veterinarian Lisa Conti confirmed Tuesday that the three farm-raised alligators tested positive for the illness last month.

Officials at Clabrook Farm Inc. in Orange County said hundreds of alligators being raised there have died suddenly in the last four years, and now they suspect West Nile was at least partially to blame.

"We thought maybe somebody was poisoning them," farm co-owner Kobi Kagen said. "But it was not affecting all of the pens. It's strange. It's strange and very sudden."

Kagen said he's aware of many other farms that have experienced similar sudden-death problems with its alligators.

It remains unclear what effect, if any, the findings will have on the state's alligator farming industry. Local, state and federal epidemiologists are continuing their investigation, Conti said.

Information from: The Gainesville Sun

West Nile Virus, Reindeer - USA (Minnesota)

A ProMED-mail post
<<http://www.promedmail.org>>

Recent reports from the National Veterinary Services Laboratory (NVSL) indicate that 3 of 19 reindeer recently tested had died of West Nile Virus. These reindeer were on pastures adjacent to or near pastures containing elk, white-tailed deer, bison, cattle, sheep, and horses. To date, however, clinical signs have been seen only in the reindeer.

Aquarium Seal Dies From West Nile

10/30/2002 - Updated 09:34 AM EST

CAMDEN, N.J. (AP) - A harbor seal at the New Jersey State Aquarium died from the West Nile virus, the first recorded case in the United States of a marine mammal succumbing to the disease.

Frank Steslow, vice president of biological programs at the aquarium, said the 12-year-old seal had been ill for 10 days before it died Sept. 22. Officials were not able to confirm the cause of death until last week.

The seal, named Sirrus, had lived at the aquarium's outdoor saltwater exhibit since it opened 10 years ago. Aquarium officials said he had no health problems and it wasn't clear how he got the disease.

WEST NILE VIRUS UPDATE



Through December 9, 2002.

DoD Mosquitoes - Through December 9, 2002, 284 WNV positive mosquito pools were found on DoD installations. These positive pools were collected in X different states (AR, DC; GA; IL, KS, MD, OH; OK, and VA).

DoD installations (and collaborators) collected 114,872 female mosquitoes over 9,751 trap nights. The 114,872 mosquitoes were placed into 13,067 pools of which 12,783 tested negative for WNV. Two hundred eighty-four (284) pools tested positive for WNV.

DoD WNV Dead Birds - To date, 105 WNV positive dead birds have been collected from 35 DoD installations in 17 States and the District of Columbia (bluejay, hermit thrush, Am Crow, house finch, house sparrow; fish crow, cowbird, tern, mourning dove, grackle, Gray-cheeked Thrush; grackle, Coopers Hawk,).

National Updates. Equine update can be found at the bottom of this message. Additionally, Individual State data on dead birds, mosquitoes, etc., can be accessed through the State and Local government links on the CDC web site: <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm> or via the USS/CINDI West Nile virus National and State Maps: http://cindi.usgs.gov/hazard/event/west_nile.htm

Nationally - Human Cases. To date as reported by CDC: 3,775 human WNV cases including 216 deaths have been reported in 37 States and DC. See the CDC web site for listings: <http://www.cdc.gov/od/oc/media/wncount.htm>

Nationally: - Equines. From 1 January to 1 December, the total number of equine cases of illness caused by West Nile virus (WNV) confirmed at the USDA's National Veterinary Services Laboratories (NVSL) or reported by state officials so far this year is 14,358. The cases are from 40 states.

<http://www.aphis.usda.gov/lpa/issues/wnv/wnvstats.html>

http://cindi.usgs.gov/hazard/event/west_nile/west_nile.html

PLAGUE IN NEW YORK



Man Tests Positive for Bubonic Plague in NYC
11/06/2002 - Updated 09:05 PM EST

NEW YORK (AP) - A New Mexico man and woman traveling in New York City tested positive for bubonic plague. The 53-year-old man and the 47-year-old woman were residents of the Santa

Fe, New Mexico area. The man subsequently died of the disease.

Plague is one of a handful of agents that federal health officials fear could be used in a bioterrorist attack. Tests by the Centers for Disease Control and Prevention (CDC), showed packrats found near the home of the two were positive for plague.

Plague occurs in 10 to 20 people in the United States and 1,000 to 3,000 people worldwide each year, according to the CDC. About one in seven cases are fatal.

Humans usually contract the disease from fleas that have fed on infected rodents.

UPDATE ON MALARIA IN VIRGINIA



Local Transmission of *Plasmodium vivax* Malaria --- Virginia, 2002

Malaria transmission in the United States was largely eliminated during the mid-20th century; however, sporadic cases of locally acquired mosquito-transmitted malaria continue to occur. Since 1997, 4 separate probable mosquito-transmitted malaria outbreaks have been reported to CDC, including one from Virginia (1--3). This report describes the investigation of 2 cases of *Plasmodium vivax* malaria that occurred in northern Virginia in August 2002, and underscores the need for clinicians to consider the possibility of malaria in patients with fever of unknown origin.

Case Reports

Case 1. On 23 Aug 2002, a person aged 19 years from northern Virginia sought medical care at a family health clinic with a 4-day history of fatigue, fever, and chills. The patient also complained of muscle aches and sinus pain. A sinus infection was diagnosed, and the patient was prescribed azithromycin and desloratadine. The patient returned to the clinic 4 days later with additional symptoms, dizziness, and nausea.

Malaria parasites were identified subsequently on a routine complete blood count smear taken 4 days after the initial clinic visit. The patient was contacted and administered chloroquine. A review of the initial malaria smear by a local university hospital confirmed the diagnosis of *P. vivax* malaria. The patient completed a 3-day course of chloroquine therapy and after a normal glucose-6-phosphate dehydrogenase (G6PD) test result was placed on primaquine for 14 days. The patient had complete resolution of symptoms.

Case 2. On 25 Aug 2002, a person aged 15 years from northern Virginia was taken to a local emergency department for treatment of 2 weeks of headaches and 4 days of fever, nausea, vomiting, malaise, and nose bleeds. A malaria smear revealed *Plasmodium* sp. parasites reported initially as non-falciparum. The patient was admitted to the hospital

and administered quinine and clindamycin. The smear was confirmed subsequently as *P. vivax* by the Virginia Department of Health. The patient completed a 3-day course of chloroquine therapy and was discharged with complete resolution of symptoms on 31 Aug 2002. After a normal G6PD test result, the patient was placed on primaquine for 14 days.

Epidemiologic Investigation

The 2 patients had no risk factors for malaria, including international travel, blood transfusion, organ transplantation, or needle sharing. The patients lived approximately 0.5 miles apart; however, the 19-year-old patient reported numerous visits to friends who lived directly across the street from the 15-year-old patient. Residents in the neighborhood surrounding the patients' homes were asked about recent febrile illnesses. Medical records from 2 hospitals serving residents in the patients' neighborhood also were reviewed, and charts of patients with a diagnosis of fever of unknown origin were obtained. None of the patients' neighbors had unexplained febrile illnesses. Of 224 hospital records available for review, 21 documented fever with no underlying cause. One of the 21 patients had persistent symptoms; however, a malaria smear did not reveal malaria parasites. No further cases of locally acquired malaria have been reported in northern Virginia.

Washington Dulles International Airport is located <10 miles from the patients' homes. The airport receives non-stop international flights from countries in which *P. vivax* malaria is endemic. Ill travelers are sent to one of the hospitals included in the investigation's case-detection activities. Physicians at 2 Army bases located nearby were contacted and reported no known cases of malaria or fever of unknown origin in troops returning from areas in which malaria is endemic.

Environmental and Entomologic Investigation

The patients' homes were visited. One home had several unscreened or poorly screened windows; the other had well-screened windows and a porch. Within the vicinity of both homes was a wooded area with a creek and ponds. As a part of ongoing West Nile virus (WNV) surveillance activities, trapping for anopheline mosquitoes within 10 miles of the patients' homes yielded *Anopheles quadrimaculatus* and *An. punctipennis*. Of approximately 870 anopheline mosquitoes tested, 5 pools (4-6 mosquitoes per pool) captured within 2--6 miles of the patients' homes tested positive for *P. vivax* - 210 circumsporozoite protein by using a field test (VecTest* [Medical Analysis Systems, Inc., Camarillo, California]) on 25 and 27 Sep 2002 and 1,6, and 11 Oct 2002. No mosquito pool has tested positive repeatedly in confirmatory testing by using polymerase chain reaction (PCR); however, efforts to confirm the positive VecTest* mosquito pools are ongoing.

Editorial Note:

Despite malaria eradication certification in the United States in 1970, 10 outbreaks involving 17 cases of probable locally acquired mosquito-borne malaria transmission have occurred since 1992. The 2 cases from northern Virginia represent the first cases of probable mosquito-borne malaria transmission in the United States since 1999 and the second reported outbreak in Virginia. These outbreaks share common features: 1) an initial case without known risk factors for malaria, 2) probable proximity to a person with malaria parasitemia, 3) presence of competent mosquito vectors, and 4) environmental conditions conducive to the maturation of the parasite in the mosquito. Approximately 1000--1500 cases of malaria in the United States are reported annually to CDC (6). The majority is diagnosed in travelers from countries in which malaria is endemic. The source of infection in the 2 northern Virginia residents was probably the bite of an infective mosquito that had acquired the parasite by biting a malaria-infected person in the general vicinity. Several *Anopheles* sp. mosquitoes native to the United States are competent malaria vectors. The *An. quadrimaculatus* and *An. punctipennis* mosquitoes captured near the patients' homes have been implicated in previous cases of locally acquired malaria (2,3). Numerous pools of these vectors were tested by using VecTest*. Although this test is used commonly in international settings (7), this is the first time the test has been used in an investigation of mosquito-borne malaria in the United States.

The identification of 5 malaria-positive pools among approximately 870 tested mosquitoes is unexpectedly high and has not been observed previously during an investigation of a malaria outbreak in the United States. Rapid screening tests such as the VecTest* were not available previously. However, because VecTest* is a new tool for the investigation of local mosquito-borne malaria in the United States, its validity in this setting is unknown, and results need to be confirmed by using PCR. Efforts are under way to develop testing algorithms for screening mosquito pools by using VecTest* and confirming results with PCR. This investigation underscores the need for clinicians to consider the possibility of malaria in patients with fever of unknown origin. Although a thorough travel history and risk factor assessment should be a part of the evaluation of febrile patients, the possibility of malaria in patients without international travel, blood transfusion, organ transplantation, or needle sharing should be considered. Rapid diagnosis and treatment with effective antimalarial drugs are the basis of patient case management and will reduce the chances that an infected host will transmit the parasite. The same precautions recommended for minimizing exposure to WNV should be followed for reducing exposure to malaria-infected *Anopheles* sp. mosquitoes, including wearing long-sleeved shirts and long trousers, using insect repellent containing N,N-diethyl-m-toluamide (DEET), and avoiding outdoor activities during the late evening. Prompt reporting of patients with malaria to local public health authorities assists in activating control measures for these isolated cases of mosquito-borne malaria.

UPCOMING EVENTS



For additional meetings, please visit these sites:

[Other meetings from Colorado State WWW](#)

[Other meetings from Pest Control Technology Online](#)

*** 2003 ***

JANUARY

6 - 10 January 2003. **67th Purdue Progressive Pest Management Conference**, Purdue University, West Lafayette, IN. Contact: Susan Umberger, 800-359-2968.

8 - 10 January 2003. **57th Texas A&M University Pest Management Conference**, Bryan/College Station, TX. Contact: 979-845-5855.

15 - 16 January 2003. **Louisiana Pest Control Association 2003 Winter Convention, Trade Show and Recertification**, Sheraton Convention Center Hotel, Downtown Baton Rouge. Contact: LPCA, 225-927-5722.

16 - 17 January 2003. **11th Annual Nebraska Urban Pest Management Conference**, Lincoln, NE. Contact: 402-472-6857 or visit <http://entomology.unl.edu/upm.htm>

16 - 18 January 2003. **Emerging Business Opportunities in Public Health Conference**, New Orleans, LA. Contact: NPMA at www.pestworld.org or call 703-573-8330.

20 - 23 January 2003. **53rd North Carolina Pest Control Association Pest Control Technician School**, Hilton North Raleigh, NC. Contact: Mike Borden, 800-547-6071 or visit www.ncpca.org

22 - 24 January 2003. **National Pest Management Association Eastern Conference**, Bally's Atlantic City, NJ. Contact NPMA, 800-578-6722 or visit www.pestworld.org.

29 - 30 January 2003. **Interstate Pest Management Conference**, Maritime Institute of Technology Training and Conference Center, Linthicum, MD. Contact: Dr. Nancy Breisch, 301-405-3911.

30 - 31 January 2003. **National Pest Management Association Southwestern Conference**, El Paso Marriott, El Paso, TX. Contact NPMA, 800-678-6722 or visit www.pestworld.org.

FEBRUARY

2 - 4 February 2003. **Association of Applied IPM Ecologists 2003 Annual Conference**, San Luis Obispo, CA. Contact: Jill Klein, 707-265-9349 or visit www.aaie.net.

6 -7 February 2003. **National Pest Management Association Southern Conference**. Adam's Mark, Memphis, TN. Contact: NPMA, 800-678-6722 or visit www.pestworld.org.

20 - 21 February 2002. **Missouri Pest Control Association Tech Training Day**, Kansas City and St. Louis, MO. Contact: 800-848-MPCA.

23 - 25 February 2002. **National Pest Management Association Legislative Days**, Marriott Gateway Hotel, Arlington, VA. Contact: NPMA, 800-678-6722 or visit www.pestworld.org.

MARCH

2 - 6 March 2003. **2003 American Mosquito Control Association Annual Meeting**, Minneapolis, MN. Contact: www.mosquito.org

12 - 14 March 2003. **PCT Fly Management Summit**, Sheraton Buckhead Hotel, Atlanta, GA. Contact: 800-456-0707 or visit www.pctonline.com/events.

14 March. **Missouri Pest Control Association Board Meeting**, Jefferson City, MO. Contact: 800-848-MPVA

JUNE

3 - 4 June 2003. **Pest-Ex 2003**, The Pavilion, National Exhibition Centre, Birmingham, UK. Contact: 44 (0) 1332 225114 or email christine@bpc.org.uk or visit the website at www.bpc.org.uk

OCTOBER

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 SW11 3RA, UK. E-mail: eventorg@event-org.com. Fax: 44-171-924-1790. Website: www.BCPC.org.

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: 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: 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 [Appendix B](#). 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 Material Other may be found on

Pest Management Than Pesticides 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

Ten Terrible Puns



1. Two vultures board an airplane, each carrying two dead raccoons. The stewardess looks at them and says, "I'm sorry, gentlemen, only one carrion allowed per passenger."
2. Two boll weevils grew up in South Carolina. One went to Hollywood and became a famous actor. The other stayed behind in the cotton fields and never amounted to much. The second one, naturally, became known as the lesser of two weevils.
3. Two Eskimos sitting in a kayak were chilly, but when they lit a fire in the craft, it sank, proving once again that you can't have your kayak and heat it, too.
4. A three-legged dog walks into a saloon in the Old West. He slides up to the bar and announces: "I'm looking for the man who shot my paw."
5. Did you hear about the Buddhist who refused Novocain during a root canal? He wanted to transcend dental medication.
6. A group of chess enthusiasts checked into a hotel and were standing in the lobby

discussing their recent tournament victories. After about an hour, the manager came out of the office and asked them to disperse "But why?" they asked, as they moved off. "Because," he said, "I can't stand chess nuts boasting in an open foyer."

7. A poor mother and father in Argentina who have twins sees them off on their separate life journeys. One of them, Amal, goes to start family in Egypt. The other, Juan, goes to start a family in Spain. Many years later, Juan sends a picture of himself to his mother. Upon receiving the picture, she tells her husband that she wishes she also had a picture of Amal. Her husband responds, "They're twins! If you've seen Juan, you've seen Amal."

8. Some friars were behind on their belfry payments, so they opened up a small florist shop to raise funds. Since everyone liked to buy flowers from the men of God, a rival florist across town thought the competition was unfair. He asked the good fathers to move out of town, but they would not. He went back and begged the friars to move away. They ignored him. So, the rival florist hired Hugh MacTagart, the roughest and most vicious thug in town to "persuade" them to move. Hugh beat up the friars and trashed their store, saying he'd be back if they didn't close up shop. Terrified, they did so, proving that Hugh, and only Hugh, can prevent florist friars.

9. Mahatma Gandhi, as you know, walked barefoot most of the time, which produced an impressive set of calluses on his feet. He also ate very little, which made him rather frail and with his odd diet, he suffered from bad breath. This made him what? (Get ready: this is so bad, it's good) A super callused fragile mystic hexed by halitosis.

10. And finally, there was the eCustomerServiceworld.com punster who sent ten different puns in an email, with the hope that at least one of the puns would generate a seasonal laugh. Unfortunately, no pun in ten did.