



Environmental Toxicology Newsletter





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Cumulative Pesticide Risk Assessment Methodologies Developed; Preliminary Report Released For Organophosphates

EPA is releasing its preliminary assessment of the cumulative risks of organophosphate pesticides and is seeking both scientific peer review and widespread public comment on the scientific methodologies used to develop the risk assessment. These risk assessment techniques represent a significant advance in EPA's abilities to evaluate pesticides.

The new methodologies, developed over the past five years with extensive scientific peer-review, allow EPA to evaluate potential exposures to multiple pesticides, taking into account food, drinking water and residential uses. A public comment period is open through March 8, 2002.

"Developing and applying the scientific methodologies to perform a cumulative pesticide risk assessment represent a major step forward in EPA's ability to evaluate the safety of pesticides," said Stephen L. Johnson, Assistant Administrator for Prevention, Pesticides, and Toxic Substances. "Because this is the first time for EPA to apply these new methods together, we are not yet ready to draw firm conclusions about the pesticides in this initial evaluation. EPA expects, and will welcome, a robust public comment period to help us fine-tune the risk assessment. This type of analysis will add significantly to our understanding of pesticide exposure, and with these tools we will continue to ensure that the United States has the safest, most abundant food supply in the world," Johnson added.

The preliminary report being released for public review examines one category of pesticides--the organophosphate insecticides--as a group because they are chemically similar and act the same way in the body. EPA has already taken action to significantly reduce risk from exposure to individual organophosphates. The preliminary cumulative risk assessment considers potential exposures to 31 organophosphates through food, drinking water and residential uses. Residential uses include pesticide applications in and around homes, schools, public buildings, golf courses, parks, public health-related uses and other areas where people may come in contact with pesticide residues.

The new methodologies evaluate potential exposures for different age groups and take into account the variability in potential exposure at different locations across the country and at different times of the year. EPA relied on a large variety of data sources, such as monitoring data that measure pesticide residues found in food, in order to obtain the most realistic estimates of actual exposure to the population from organophosphate pesticides.

Until the Agency solicits external scientific peer review and incorporates any necessary revisions, it is premature to draw conclusions about specific risks or to consider potential risk management actions. EPA has previously enacted risk reduction measures on individual organophosphate pesticides, leading to significant reduction in potential risk. EPA remains confident in the overall safety of the nation's food supply, and continues to emphasize the importance of eating a varied diet rich in fruits and vegetables. EPA's analysis indicates that drinking water appears not to be a major contributor to risk. Although most indoor uses of organophosphate pesticides have been eliminated through earlier risk reduction actions, remaining uses may be reevaluated.

The cumulative risk assessment released is preliminary. To gain public and scientific peer review on these innovative methodologies, EPA is continuing to seek guidance and input from the scientific community and other interested stakeholders about the initial findings, the scientific methods used in the assessment and any revisions and refinements that may be necessary. EPA will present the preliminary assessment during two public meetings: 1) a Technical Briefing scheduled for Jan.15, and 2) the FIFRA Scientific Advisory Panel (SAP) meeting on Feb. 5-8.

Information on these meetings will be available at: <http://www.epa.gov/pesticides/> and at: <http://www.epa.gov/scipoly/sap/>, respectively. The SAP is an advisory committee of independent scientific expert peer reviewers. Following consideration of comment from the public and SAP, EPA intends to issue a revised cumulative risk assessment by August 2002. The release of the preliminary cumulative risk assessment is an important step toward meeting the statutory goal called for in the Food Quality Protection Act of reassessing 66 percent of pesticide food tolerances by August 2002.

The preliminary risk assessment documents are available at: <http://www.epa.gov/pesticides/>. In the near future, EPA is planning to post on this web page the actual data used to conduct this assessment.



Dioxins

FDA Strategy for Monitoring, Method Development, and Reducing Human Exposure

FDA plans to expand and improve the effectiveness of the monitoring program by:

- Increasing sampling and analysis of human foods and animal feeds that contribute most significantly to human dietary exposure to dioxins,
- Expanding the capability of FDA field staff to collect and analyze increased numbers of food and feed samples for dioxins,
- Performing trace-back investigations of unusually high levels in food and feeds to determine if the source of contamination can be reduced or eliminated, and
- Enhancing research into new or modified methods for dioxin analysis so that less time-consuming and less expensive methods become available to the public.

For more information, link to: <http://www.cfsan.fda.gov/>

REF: FDA/CFSAN (U. S. Food and Drug Administration/Center for Food Safety and Applied Nutrition/Office of Plant and Dairy Foods and Beverages), February 7, 2002.



Antibacterial Products Causing Concern

In the mid-1990's, only a few dozen household products' labels advertised their antibacterial properties. Today, there are more than 700 available, ranging from cleansers, soaps, dishwashing detergents, and even toothbrushes, sheets, and towels. The result? According to Dr. Stuart Levy of Tufts University School of Medicine, there is growing concern that these antibacterial products will promote the growth of more antibiotic-resistant pathogens--and may even hinder people's normal immune systems. Dr. Levy presented these findings at the 2000 Emerging Infectious Diseases Conference. "Antibacterial Household Products: Cause for Concern," was published in *Emerging Infectious Diseases*, Vol. 7, No. 3, June 2001.

While the public has been bombarded with antibacterial products, Dr. Levy says, "Bacteria are not about to succumb to this deluge...." Dr. Levy notes that antibacterial substances added to household cleaning products are similar to antibiotics. Overuse of these products can produce bacteria that are resistant to antibiotics. "No current data demonstrate any health benefits from having antibacterial- containing cleansers in a healthy household," Dr. Levy says.

In addition, Dr. Levy says, "Besides resistance, the antibacterial craze has another potential consequence." He reports a link between "too much hygiene" and increased allergies. Dr. Levy notes one expert who "has likened the immune system to the brain. You have to exercise it, that is, expose it to the right antigenic information so that it matures correctly. Excessive hygiene, therefore, may interfere with the normal maturation of the immune system...."

Dr. Levy concludes, "We exist in the bacterial world.... Unfortunately, we believe that we can rid ourselves of bacteria when, in fact, we cannot. Instead, we should 'make peace' with them. Although we need to control pathogens when they cause disease, we do not have to engage in a full-fledged 'war' against the microbial world." To read the article, go to: http://www.cdc.gov/ncidod/eid/vol7no3_supp/levy.htm

REF: USDA/FSIS, *The Food Safety Educator*, 6(3), 2001.



Reminder for Pregnant Women to Avoid Certain Foods

The Australia New Zealand Food Authority (ANZA) is warning pregnant women about the risks of Listeria after it confirmed the bacteria killed two unborn babies. ANZFA suspected the mothers of the two fetuses, both from Western Australia, were infected with the bacteria when their babies died late last year but it was only able to confirm last week Listeria as the culprit. The babies were aged 16 and 24 weeks when they died. Scientists do not know exactly how the bacteria kills a baby while the mother might experience only a mild fever, if she has any symptoms at all. Australian health authorities are now warning pregnant mothers and others at risk for Listeria infections to take certain precautions, such as avoiding high risk products such as **soft cheeses, raw or undercooked seafood, foods from salad bars and other ready-to-eat foods**. Listeria is a common pathogen that is ubiquitous in the environment. It does not often cause harm to healthy adults, but it can prove deadly to fetuses, the elderly and those with weakened immune systems. The pathogen has gained some notoriety over the last couple of years after being linked to serious outbreaks of food poisoning around the world.

For more information on Listeria, please link to: <http://www.cdc.gov/od/oc/media/fact/lister.htm>



Nation's Milk Supply Gets Good Grades from FDA

Producers, processors, veterinarians, and regulators all appear to be doing a good job keeping animal drug residues out of the milk supply. The latest accounting for 2001 sampling has been released by the Food and Drug Administration's National Milk Drug Residue program.

FDA Testing Found: The number of U.S. milk samples testing positive for drug residues remained consistently very low last year - less than 1/10th of one percent. In fiscal year 2001, only 3,401 of the 4,203,616 samples analyzed tested positive for animal drug residues. A total of 4.3 million milk tests were completed in FY 2001, on 14 different drugs or families of pharmaceutical compounds. Forty-seven testing methods were used to analyze the samples for residues. A sample is defined as a load or lot of milk, primarily in one of four forms: bulk milk pickup tankers; pasteurized fluid milk; producer milk samples; and other related sources, such as milk from plant silos or transport tankers. Most of the samples from the report were from bulk milk pickup tankers because every bulk milk pickup tanker is required to be tested prior to unloading at a milk plant.

REF: AgWeb.com, February 19, 2002.



DPR upgrades school IPM on the Web

There's a new, virtual library open "24/7" to help schools manage their pest problems. The California Department of Pesticide Regulation (DPR) has launched a new version of its [School IPM Program Web site](#). (IPM -- integrated pest management -- promotes strategies based on prevention and least-toxic solutions.) The site features a wealth of IPM resources.

"We want IPM to work for every California classroom, cafeteria, and school playground," said DPR Director Paul E. Helliker. "Schools are very sensitive environments. Poor sanitation may attract rodents, roaches, and other pests that threaten children's health. At the same time, using strong pesticides on school property may raise other concerns. A comprehensive IPM program can minimize pest problems, reduce the use of highly-toxic pesticides, and help protect kids at school," said Helliker.

DPR began expanding its school IPM program under Governor Davis' Children's Health Initiative. The Healthy Schools Act of 2000 (AB 2260, Shelley) complemented those efforts and added some mandates. DPR's school IPM Web site goes beyond the legal requirements, offering reader-friendly tips and sample documents for parents, school officials, and their communities.

For example, one Web page discusses voluntary and mandatory aspects of the Healthy Schools Act. While public

school IPM programs are voluntary, the law includes some mandatory right-to-know provisions. (Schools must advise parents of prospective pesticide use at the start of the school year. Parents then may request a notice before each pesticide application.) Sample letters are posted online so schools and parents can easily understand their rights and responsibilities.

Some pesticides are exempt from the law's requirements. The new Web site includes a step-by-step checklist to help school officials determine when pesticide use must be reported and warning signs posted. (The law requires schools to post warning signs for 24 hours before and 72 hours after pesticide applications.) The Web site offers a sign template to help schools comply.

DPR's School IPM Web site also offers scores of links and online reference tools. For example, users may link to DPR's own pesticide databases, which catalog California-registered pesticides by active ingredient, product name, and other criteria. For toxicology data, users may link to the [Extension Toxicology Network \(Exttoxnet\)](#), a university-supported database that describes pesticide health effects.

REF: Department of Pesticide Regulation News Release, January 18, 2002 (02-02).



A Crop Dusting Exposure Incident

There are several laws and regulations in place today that help to prevent the accidental exposure to pesticides. However, as we all know, accidents still do happen. The following article is based on a true story. We have not mentioned any names, but for clarification, the crop duster will be labeled the "pilot" and the person who was exposed the "farmer."

A farmer takes his two dogs out for a walk one cool spring morning. As they are walking on the dirt roads that surround the wheat and alfalfa fields, the farmer notices a crop dusting plane heading towards them. The farmer does not think too much about this as crop dusters are typical to see this time of year, however this particular crop duster flies close and the farmer sees and waves at the pilot. The farmer continues his walk. The farmer hears a plane getting closer and as he turns around he sees that the crop duster is headed his way. Surely the pilot would not spray any pesticides with him and his dogs so close to the field... Wrong! He does spray and the farmer and his two dogs get very wet with a pesticide as the pilot flies within a few feet of them. The wind was blowing 5-6 mph which made the exposure even worse. The farmer is shocked and worried about what this pilot has sprayed on him and his dogs. The farmer continues walking towards home and sees that the plane is turning around and heading back to spray the next row. The farmer starts to run and yells at his dogs to do the same. They have nowhere to hide from the plane and are sprayed again.

After the farmer showers (from the exposure) he calls the spraying company and is told that the pilot was spraying an insecticide called Warrior (cyhalothrin, which is used for alfalfa weevil). Cyhalothrin is a synthetic pyrethroid that is used to control alfalfa weevil and is classified a toxicity category I (Danger). Toxicity category I is the highest toxicity rating assigned by the EPA for a pesticide product. Within about a ½ hour the farmer's left eye becomes red and

irritated. He did not think the irritation warranted a trip to his doctor, but he was concerned. He also laundered his clothes with the exception of his sweatshirt.

The farmer reported the incident to the County Agricultural Commissioner's office and also provided them with his sweatshirt for analysis (which came back positive for cyhalothrin). He discussed the incident at great length with the Ag Commissioner's personnel. The county personnel made an appointment to go out and see exactly where the exposure took place. It was obvious to the county personnel that there was nothing blocking the view of the pilot. The fields are out in the open with no tall trees or other buildings that could have hindered the pilot's view. The farmer wrote a letter of complaint so that the county personnel could start the process of filing a report to the Agricultural Commissioner regarding this pesticide exposure.

Several months later the farmer received a call from the Agricultural Commissioner's office stating that after the respondent (pilot) received his notice and fine, the pilot was denying the allegations and requested a hearing. The farmer was requested to attend, which he did. The hearing is similar to appearing in court only without the lawyers! The pilot was a no show, which means the pilot will have to pay a fine to the county (~\$400) [the farmer was told that if he had gone to the doctor/hospital, the fine would have been much larger].

The process of this event, from the actual pesticide exposure to the penalty, is lengthy. However, incidents like this should not be dismissed as merely an isolated incident, but rather, any accidental exposure to pesticides should be reported to your County Agricultural Commissioner's Office.

Editorial Note: This incident is a true story, and happened last year in a farming area close to Davis. I was frankly very surprised by how difficult it was for the farmer to initiate this complaint, and the resulting minor nature of the penalty levied on the pilot. I acted as an unpaid consultant to the farmer in this case to assist him in being heard. Because of this experience, I have come to the conclusion that in situations like this, even if there does not appear to be any immediate illness involved, **anyone who has been directly exposed as a result of an aerial application of pesticide, should seek medical attention after showering (if possible) and do not wash your clothes but save them for the investigators.** By doing so, the reporting process is activated and the person who has suffered the insult, will be certain he will be heard quickly, and the incident will be investigated thoroughly. Part of the problem with this particular incident was that the pilot and his employer did not take responsibility for having made a mistake, and even tried to make the farmer look responsible for the incident! It is likely that the pilot thought he could make his application without hitting the farmer or his dogs, but he was wrong. Had he, and his employer acknowledged the error immediately, and apologized to the farmer, it is likely that the farmer would not have pursued a complaint. It is astounding to me that in this case of such an egregious violation, the pilot received such a small fine. We can only hope that the pilot who perpetrated this incident, has learned something from it so that he is more careful in the future.

~~~~ Art Craigmill





# ✦ Toxicology Tidbits ✦

## Wood Preservatives

### Manufacturers to Use New Wood Preservatives, Replacing Most Residential Uses of CCA

On February 12, 2002, EPA announced a voluntary decision by industry to move consumer use of treated lumber products away from a variety of pressure-treated wood that contains arsenic by Dec. 31, 2003, in favor of new alternative wood preservatives. This transition affects virtually all residential uses of wood treated with chromated copper arsenate, also known as CCA, including wood used in play-structures, decks, picnic tables, landscaping timbers, residential fencing, patios and walkways/boardwalks.

For more information, link to: <http://www.epa.gov/pesticides/>

### Evaluating the Wood Preservative Chromated Copper Arsenate (CCA)

Under Federal law, the Environmental Protection Agency (EPA) is responsible for regulating the sale, distribution, and use of pesticides in the United States, and establishing maximum levels of pesticides in or on food. To ensure that older pesticides continue to meet current science and regulatory standards, EPA reassesses the science and uses of these pesticides in a reregistration program. In addition, in this program EPA determines whether changes are appropriate to ensure the safety of pesticides' continued use. This document provides an overview of how EPA is conducting its comprehensive review of CCA under this program, along with some of the key issues under consideration.

For more information, link to: <http://www.epa.gov/>



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## Information for Kids and Parents

[A Roach Prevention Activity Web Site For Kids](#) - Roaches are one of the most common household pests. Once they move into your home, they multiply quickly. That makes them even harder to control. When roaches are around, most people reach for the roach spray right away. These sprays contain poisons called pesticides because they kill or drive away pests like roaches. But pesticides may be harmful if they are used the wrong way. Your family can do a lot of things to control roaches before you need to use a pesticide. Use this EPA Web site and complete the activities to learn what kids and adults can do.

[Protecting Children From Pesticides](#) - Children are at a greater risk for some pesticides for a number of reasons.

Children's internal organs are still developing and maturing and their enzymatic, metabolic, and immune systems may provide less natural protection than those of an adult. There are "critical periods" in human development when exposure to a toxin can permanently alter the way an individual's biological system operates.

[Child Passenger Safety](#) - National Child Passenger Safety Week focuses public attention on a sobering fact -- motor vehicle crashes are the leading cause of death among children in the U.S. The Centers for Disease Control and Prevention believes that all children deserve to ride safely in motor vehicles -- properly restrained in the back seat.



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## Calcium Crisis Affects American Youth

Only 13.5 percent of girls and 36.3 percent of boys age 12 to 19 in the United States get the recommended daily amount (RDA) of calcium, placing them at serious risk for osteoporosis and other bone diseases, according to statistics from the U.S. Department of Agriculture. Because nearly 90 percent of adult bone mass is established by the end of this age range, the nation's youth stand in the midst of a calcium crisis.

REF: National Institutes of Health News Release, December 10, 2001.



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## Pesticide Product Information System (PPIS)

The [Pesticide Product Information System \(PPIS\)](#) contains information concerning all pesticide products registered in the United States. The files located in this download area are presented in ascii to enable interested parties to access them using a variety of database and spreadsheet software.

REF: EPA/Office of Pesticide Programs Website.



## Paraformaldehyde Fact Sheet

The EPA fact sheet on [Paraformaldehyde](#) is part of a series relating to chemicals that may be used in Federal Anthrax decontamination efforts. EPA has approved these pesticides against anthrax only for use by authorized personnel according to the specific requirements of the applicable crisis exemption and approved decontamination plans. These chemicals are not intended for use by the general public.

**What is Paraformaldehyde?** A white, crystalline powder with the odor of formaldehyde, paraformaldehyde has been used as a fumigant for more than 30 years to decontaminate laboratory facilities and to disinfect sickrooms, clothing, linen, and sickroom utensils. When heated, paraformaldehyde releases formaldehyde gas, which may be used as a decontaminant. Paraformaldehyde is also used in dentistry and in the manufacture of synthetic resins and artificial ivory.

REF: EPA/Office of Pesticide Programs Website.



## Updated Consumer Information on Dental Amalgams Available

FDA's Center for Devices and Radiological Health has created a page with the latest safety information on the amalgam materials used in dental fillings. <http://www.fda.gov/cdrh/consumer/amalgams.html>



## Baylisascaris procyonis

*Baylisascaris procyonis* (BP), a common roundworm found in the small intestine of raccoons, causes severe or fatal encephalitis (neural larva migrans) in a variety of birds and mammals, including humans. BP also can cause human ocular and visceral larva migrans. Humans become infected with BP by ingesting soil or other materials (e.g., bark or wood chips) contaminated with raccoon feces containing BP eggs. Young children are at particular risk for infection as a result of behaviors such as pica and geophagia and placing potentially contaminated fingers and other objects (e.g., toys) into their mouths. This report (<http://www.cdc.gov>) describes two cases of BP encephalitis in residents of Chicago and Los Angeles and illustrates the importance of reducing exposure to raccoons and their feces in U.S. urban areas.

REF: *Morbidity and Mortality Weekly Report*, 50(51), January 4, 2002.



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## Bt Corn Poses “No Significant Risk” to Monarchs

A consortium of federal, university and industry scientists led by the Agricultural Research Service has completed two years of research to answer the question: Does Bt corn pose a threat to monarch butterflies? The answer, supported by data, is that **there is no significant risk**.

To read more link to: [www.ars.usda.gov](http://www.ars.usda.gov)



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## New Publications from NIOSH

The Centers for Disease Control and Prevention/National Institute for Occupational Safety and Health (NIOSH) has published two new documents titles: "[Fatal Injuries to Civilian Workers in the United States, 1980-1995](#)" and "[Fatal Injuries to Civilian Workers in the United States, 1980-1995: National and State Profiles](#)."

These two documents include 16 years of data (1980-1995) from the National Traumatic Occupational Fatalities (NTOF) surveillance system. Statistics on over 93,000 deaths are provided by demographic and injury characteristics.

These data may be used for developing prevention strategies by enabling researchers and practitioners in government, academia, industry, and labor to focus efforts on the leading causes of workplace injury death in the high-risk industries and occupations.

A few of the major findings from this study include:

- The average annual occupational fatality rate for the U.S. civilian workforce was 5.2 per 100,000 workers for 1980 through 1995.
- The greatest number of fatal occupational injuries occurred in California (9,670), Texas (9,423), Florida (5,596), Illinois (4,169), and Pennsylvania (3,926).
- The fatality rate for males (8.8 per 100,000 workers) was 11 times higher than the rate for females (0.8 per 100,000 workers).
- The leading causes of occupational injury death in the U.S. were motor vehicle crashes (23%), homicides (14%), machine-related incidents (13%), falls (10%), electrocutions (7%), and being struck by falling objects (6%).
- The industry divisions with the greatest proportion of fatalities were construction (18%), transportation/communication/public utilities (17%), manufacturing (15%), and agriculture/forestry/fishing (12%).
- The highest rates by cause of death varied by occupation: the highest rate among executives/administrators/managers was for homicides (0.8 per 100,000 workers), while machinery-related incident rates were highest among farmers/foresters/fishers (7.0).



## Department of Energy Builds Database of Most Deadly Diseases

Scientists at the U.S. Department of Energy's Ames Lab are building an online database profiling the most deadly diseases animals and humans can contract. Through a secure government web site, the lab hopes the information will help veterinarians identify diseases that could wipe out herds or spread to humans.

The project, funded over the past two years by the Energy Department's Office of Nonproliferation and National Security, currently includes information on 14 of the most dangerous diseases deadly to both humans and animals.

### 14 Dangerous Diseases

|                                |                              |
|--------------------------------|------------------------------|
| Anthrax                        | Q Fever                      |
| Botulinum Toxins               | Ricin (a toxin)              |
| Brucellosis                    | Saxitoxin                    |
| Clostridium Perfringens toxins | Staphylococcal Enterotoxin B |

|                              |                                |
|------------------------------|--------------------------------|
| Melioidosis (glanders)       | Trichothecene Mycotoxins       |
| Organophosphate insecticides | Tularemia                      |
| Plague                       | Venezuelan Equine Encephalitis |

The Web site will be available early this year once testing is complete.

REF: *Veterinary Practice News*, 14(2), February 2002.




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## **VETERINARY NOTES.....**

### FDA Bioterrorism Page Debuts

A new page with links to bioterror-related information from FDA, as well as from other authoritative sources such as the Centers for Disease Control and Prevention and the National Library of Medicine, is now on [FDA's Website](#). Also available separately online is related information on labeling for [two anthrax treatments](#) and FDA warnings issued to sellers of [unapproved foreign Cipro](#).

REF: *FDA News Digest* -- November 5, 2001.




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### Fumonisin Levels in Human Foods and Animal Feeds

FDA announced the availability of a final guidance document entitled "Guidance for Industry: Fumonisin Levels in Human Foods and Animal Feeds" in the November 9, 2001, *Federal Register*. The purpose of the guidance is to identify for the industry fumonisin levels that FDA considers adequate to protect human and animal health and that are achievable in human foods and animal feeds with the use of good agricultural and good manufacturing practices.

FDA considers this guidance to be a prudent public health measure during the development of a long-term risk management policy and program by the agency for the control of fumonisins in human foods and animal feeds. The Agency is also announcing the availability of the final supporting documents entitled "Background Paper in Support of Fumonisin Levels in Corn and Corn Products Intended for Human Consumption," and "Background Paper in Support of Fumonisin Levels in Animal Feed."

The guidance document is on the [FDA Home Page](#) on the Internet.

REF: FDA/Center for Food Safety and Applied Nutrition/Center for Veterinary Medicine, November 9, 2001



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## Ruminant Feed (BSE) Enforcement Activities

To help prevent the establishment and amplification of BSE through feed in the United States, FDA implemented a final rule that prohibits the use of most mammalian protein in feeds for ruminant animals. This rule, Title 21 Part 589.2000 of the Code of Federal Regulations, became effective on August 4, 1997. To date, active monitoring by the U.S. Department of Agriculture (USDA) has found no cases of bovine spongiform encephalopathy (BSE) in U.S. cattle. This is an update on FDA enforcement activities regarding the ruminant feed (BSE) regulation. FDA previously provided information on this issue in three CVM UPDATES, most recently one on July 6, 2001.

[FDA Veterinarian](#), November/December 2001, Vol. XVI, No. VI.



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## Judicious Use of Antimicrobials for Pork Producers

FDA's Center for Veterinary Medicine has recently published "Judicious Use of Antimicrobials for Pork Producers." This publication was prepared in conjunction with the National Pork Board. Copies are available by contacting the Communications Staff (HFV-12), Center for Veterinary Medicine, 7500 Standish Place, Rockville, MD 20855, or contacting the [CVM Web site](#)



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## BSE Inspection Checklist

FDA's Center for Veterinary Medicine (CVM) has made available the Bovine Spongiform Encephalopathy (BSE) Inspection Checklist on the Center's Home Page on the Internet at: <http://www.fda.gov/cvm/forms/forms.html>. This checklist is to be used by Federal and State inspectors to determine compliance with FDA's ruminant feed (BSE) regulations, Code of Federal Regulations, Title 21, Part 589.2000 (<http://www.access.gpo.gov/>) This rule prohibits the use of most mammalian protein in feeds for ruminant animals and was implemented to prevent the establishment and amplification of BSE through feed in the United States. The rule became effective on August 4, 1997. Inspections of more than 10,000 renderers, feed mills, ruminant feeders, and others (such as protein blenders) have been conducted to determine compliance with the BSE feed regulations. The majority of these inspections (around 80%) were conducted by State officials and the remainder by FDA. A checklist has been used to record information on the compliance with the rules. The checklist that is being made available on the CVM Home Page is a revised version intended for use in future inspections.



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## Harvard Study Shows Very Low Risk of BSE in the United States

The U.S. Department of Agriculture released a landmark study by Harvard University that shows the risk of Bovine Spongiform Encephalopathy (BSE) occurring in the United States is extremely low. The report showed that early protection systems put into place by the USDA and Department of Health and Human Services (HHS) have been largely responsible for keeping BSE out of the U.S. and would prevent it from spreading if it ever did enter the country. Even so, officials outlined a series of actions to be taken that would continue strengthening programs to reduce that risk even further.

The risk assessment was commissioned by USDA and conducted by the Harvard Center for Risk Analysis. It evaluates the ways BSE could spread if it were to ever enter the United States. The report's purpose is to give agencies a scientific analysis to evaluate preventative measures already in place and identify additional actions that should be taken to minimize the risk of BSE.

“The study released today clearly shows that the years of early actions taken by the federal government to safeguard consumers have helped keep BSE from entering the United States,” said Agriculture Secretary Ann M. Veneman. “Even if BSE were to ever be introduced, it would be contained according to the study. However, we cannot let down



our guard or reduce our vigilance. We must continue to strengthen these critical programs and today we are announcing a series of actions to bolster our protection systems.”

“Based on three years of thorough study, we are firmly confident that BSE will not become an animal or public health problem in America,” said Dr. George Gray, deputy director of the Harvard Center for Risk Analysis and director of the project.

In response to the report, Veneman announced a series of actions the USDA would take, in cooperation with HHS, to strengthen its BSE prevention programs and maintain the government’s vigilance against the disease.

**First**, USDA will have the risk assessment peer reviewed by a team of outside experts to ensure its scientific integrity.

**Second**, the USDA will more than double the number of BSE tests it will conduct this fiscal year, with over 12,500 cattle samples targeted in 2002--up from 5,000 during 2001.

**Third**, USDA will publish a policy options paper outlining additional regulatory actions that may be taken to reduce the potential risk of exposure and ensure potential infectious materials remain out of the U.S food supply. To ensure its decisions are science-based, options will be tested using the computer model developed through the risk assessment to determine the potential impact they would have on animal and public health.

The options to be considered will include: prohibiting the use of brain and spinal cord from specified categories of animals in human food; prohibiting the use of central nervous system tissue in boneless beef products, including meat from advanced meat recovery (AMR) systems; and prohibiting the use of vertebral column from certain categories of cattle, including downed animals, in the production of meat from advanced meat recovery systems. USDA will invite public comment on the options and then proceed with appropriate regulatory actions.

**Fourth**, USDA will issue a proposed rule to prohibit the use of certain stunning devices used to immobilize cattle during slaughter.

**Fifth**, USDA will publish an Advance Notice of Proposed Rulemaking (ANPR) to consider additional regulatory options for the disposal of dead stock on farms and ranches. Such cattle are considered an important potential pathway for the spread of BSE in the animal chain.

“We found that even if BSE were ever introduced, it would not become established,” said Gray. “With the government programs already in place, even accounting for imperfect compliance, the disease in the cattle herd would quickly die out, and the potential for people to be exposed to infected cattle parts that could transmit the disease is very low.”

BSE has never been detected in U.S. cattle, nor has there been a case of the human form of the disease, variant Creutzfeldt-Jakob Disease (vCJD), detected in the United States. Since 1989, USDA has banned the import of live ruminants, such as cattle, sheep and goats, and most ruminant products from the United Kingdom and other countries having BSE. The ban was extended to Europe in 1997. To stop the way the disease is thought to spread, HHS prohibited the use of most mammalian protein in the manufacture of animal feed intended for cows and other ruminants. Should a case of BSE ever be detected in this country, an emergency response plan has been developed to immediately control suspect animals and prevent them from entering the food supply.

This summer, HHS Secretary Tommy Thompson announced an action plan outlining new steps to improve scientific

understanding of BSE that incorporates a comprehensive approach to further strengthen surveillance, increase research resources and expand existing inspection efforts.

BSE is a chronic, degenerative neurological disorder of cattle that belongs to a family of diseases known as transmissible spongiform encephalopathies. Also included in that family of illnesses is vCJD, which is believed to be caused by eating neural tissue, such as brain and spinal cord, from BSE-affected cattle.

A complete copy of the Harvard Report can be obtained from [USDA's official website](#). For more information about BSE and the many efforts being taken to prevent its entry and spread into the United States, also visit <http://www.hhs.gov/>.

[USDA News Release](#) Release No. 0241.01



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## Foot and Mouth Disease -- What Happened?

Have you wondered whatever happened about Foot and Mouth Disease (FMD)? For those of you with short memories, an outbreak of FMD in Europe caused great concern for all of the countries (like the United States) that do not have FMD. You probably remember some news footage that looked like Great Britain was having the world's biggest BBQ. It appears that Great Britain's monumental efforts paid off.

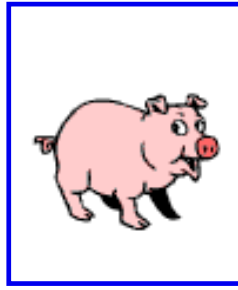
Since the original outbreak on February 19, 2001, there have been 2,030 confirmed cases of FMD in Great Britain. The last case was diagnosed September 30, 2001; 30 days now without a confirmed case; the British government had indicated that 3 weeks without a confirmed case would indicate the outbreak had ended. Exportations of some products are beginning to occur in some locations.

In all, Great Britain had to destroy 3,913,000 animals (>7% of livestock population), including more than 3 million sheep, 600,000 cattle, and nearly 140,000 pigs. Indemnities paid for animals alone currently total over \$178M.

REF: *Georgia Pest Management Newsletter*, November 2001/Volume 24, No. 11.



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