

PEP-TALK
OSU Extension Pesticide Education Program
Vol 2 Issue 16 November 1997

<http://www.ag.ohio-state.edu/~pested/>

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EPA SCIENTISTS FIND AGENCY HAS OVERSTATED RISK POSED BY ATRAZINE

An internal panel of EPA toxicologists has concluded that EPA currently overestimates the cancer risk posed by the most widely used herbicide in the country, according to agency sources who say the finding will likely spur EPA to reassess the way it regulates atrazine.

The panel's recommendations, according to EPA sources, could push the agency to relax its current drinking water and water quality limits for atrazine, as well as its controversial proposal requiring states to develop "state management plans" (SMP) to control runoff from pesticides and herbicides.

For the past several years, environmental groups have pressed EPA to tighten its regulation of atrazine, claiming that runoff from the pesticide is a major source of drinking water contamination. In addition, atrazine is one of five pesticides for which states would have to submit runoff control plans under the agency's proposed SMP regulation.

EPA is currently reviewing its residue limits for atrazine under the Food Quality Protection Act's registration requirements, and agency staff expect to decide whether to re-register the compound by 1999 or 2000. Under this review process, the Office of Pesticide Program's peer review panel has examined a proposal from Novartis, the herbicide's manufacturer, that claims that atrazine poses no cancer risk at low levels. The panel recently agreed with Novartis, concurring that atrazine "is more suitable for a non-linear risk assessment model," according to one EPA official. Hence, this source says the panel believes it would be appropriate to regulate the herbicide under the assumption that it poses no cancer risk at a low level of exposure.

One EPA source explains that this finding could prompt the agency to relax its atrazine regulations. "Traditionally, chemicals that are found to have a threshold at which there is no effect tend to be regulated with less scrutiny," says one EPA source. At the same time, another agency source thinks it is far too early to assume that this recommendation will translate into regulatory relief. This source says that atrazine is currently regulated in a vacuum and thus it is not considered in conjunction with other triazine compounds. This source thinks the new food safety law will require the agency to establish risk levels for atrazine by evaluating it in combination with other triazine chemicals. This source believes that this kind of evaluation could raise new concerns about the chemical.

In the interim, the panel's finding should have dramatic impacts on other regulations and particularly the SMP program. "We have started to analyze what this would mean for the SMP rule," one EPA source says. This source says the panel's findings would not impact the controversial structure of the rule which requires states to seek EPA approval for runoff management plans, but may alter the current decision to include atrazine and other triazines on

the list of pesticides which would require such a plan. Other EPA sources say the new risk data will likely factor into upcoming decisions to revisit the drinking water standard for atrazine as well.

The panel's recommendations are still being reviewed by upper level management, according to one EPA official. Eventually, the recommendations from the panel will be forwarded to the pesticide program's science advisory panel (SAP), a group of independent scientists which review science policy for the program. An EPA source says the SAP initially intended to review the recommendations in March of 1998, but this meeting was canceled and has not been rescheduled. (Bruce Wilkinson, USEPA, E-mail, October 28, 1997)

CHEMICAL & LABEL UPDATE

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by OSU Extension.

FIELD CROPS

JV 485 (isopropazol)--Monsanto-- This herbicide formerly designated MON 48500 will be commercialized in a joint venture with Bayer. It is a preemergence herbicide for usage on wheat to control broadleaf weeds and grasses. (Ag. Chem News, November 15, 1997)

Roundup Ultra (glyphosate)--Monsanto-- Added to their label the usage on sugar beets and canola grown for seed production. (Ag. Chem News, November 15, 1997)

Lambda-cyhalothrin--EPA, on its own initiative, ^{Lower} has established time-limited tolerances for combined residues of the insecticide lambda-cyhalothrin and its epimer in or on barley grain, barley bran, barley hay and straw, canola seed, and sugarcane. This action is in response to EPA's granting of emergency exemptions under section 18 authorizing use of the pesticide in Louisiana and Montana. (Federal Register, October 29, 1997)

FRUITS and VEGETABLE

Ammo (cypermethrin)--FMC--Added to their label the usage on brassica crops. (Ag. Chem News, November 15, 1997)

Nemacur 3 (fenamiphos)--Bayer--Added to their label the control of phylloxera on grapes. (Ag. Chem News, November 15, 1997)

Neu 1165M Slug & Snail Bait (iron phosphate)--W Neudorff--EPA has approved an application to register this new active ingredient for domestic/non commercial food use on vegetable gardens, fruits and berries and for ornamentals, greenhouses and lawns. (Federal Register, September 30, 1997)

[4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile]--Ciba-Geigy Corp--EPA has established a tolerance for the fungicide 4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile in or on potatoes. The Ciba-Geigy Corporation submitted a petition to EPA requesting this tolerance. This regulation is effective October 29, 1997. (Federal Register, October 29, 1997)

Topsin M (thiophanate-methyl)--Elf Atochem--Due to the high cost of re-registration the company plans to delete from their label the usage on celery. They will continue to support the other usages of the product. (Ag. Chem News, November 15, 1997)

MISCELLANEOUS

Avermectin--EPA has established a time-limited tolerance for the combined residues of the miticide avermectin in or on basil. California submitted information to EPA that indicates that the leafminer (*Liriomyza* sp.) poses a significant threat to the profitable production of basil. The tolerance will expire and is revoked on September 30, 1998. (Federal Register, October 29, 1997)

Ferric Phosphate-- W. Neudorff GmbH KG-- EPA has established an exemption from the requirement of a tolerance for residues of ferric phosphate, when used as a molluscicide in or on all food commodities. (Federal Register, October 29, 1997)

Plateau (imazapic)--American Cyanamid--Received EPA registration for weed control and turf growth suppression on roadsides and other noncrop areas. (Ag. Chem News, November 15, 1997)

Tebuconazole-- EPA, on its own initiative, has established time-limited tolerances for residues of tebuconazole in or on sunflower seed and sunflower oil. This action is in response to an emergency exemption under section 18. The tolerances will expire and are revoked on September 30, 1998. (Federal Register, October 29, 1997)

Notice of Receipt of Requests to Voluntarily Cancel Certain Pesticide Registrations

EPA is issuing a notice of receipt of requests by registrants to voluntarily cancel the following pesticide registrations. Unless a request is withdrawn by April 27, 1998, orders will be issued canceling all of these registrations.

Furadan 4F

Vydate L Insecticide Nematicide

Cryia(B) Form of the B.T.K. Insect

SA-50 Insecticide Bait

Gowan Mepiquat Chloride 4.2 Liquid

Triflurex (Trifluralin) Technical

Monitor 4 Spray

Pro `1" Pre-Emergence Herbicide

(Federal Register, October 29, 1997)

COLLEAGUES SAY FROG DEFORMITY RESEARCHERS LEAPED TOO SOON

The scientific debate over what is causing deformed frogs around the nation is starting to sour, with researchers accusing colleagues of making rushed and unnecessarily alarming announcements. "I'm saddened by this," said Gil Veith, associate director of EPA's National Effects Laboratory. "Now federal scientists are going to look like idiots. Even the ones who are ultimately proven right."

On September 30 officials from the National Institute of Environmental Health Sciences (NIEHS) and the Minnesota Pollution Control Agency (MPCA) announced that samples of Minnesota surface and ground water had caused abnormalities, but they were unsure what compound in the water may have caused the defects. They also said the human health effects were also unknown, but residents with affected wells were offered bottled water as a precaution.

The announcement made other scientists that were familiar with the "bioassay" procedure used unhappy. In the bioassay, embryos of the African clawed frog were exposed to Minnesota water samples for 96 hours then microscopically examined for irregularities. "They're looking at a totally aquatic species from Africa with a very different physiology. And they're looking at it after four days of development, before it even has legs," said Andrew Blaustein, a zoologist at Oregon State University. "In my opinion the press conference was alarmist and very premature."

Researchers at the EPA's Mid-Continent Ecology lab in Duluth duplicated the experiments and came to a different interpretation of the results. "The NIEHS acted irresponsibly in the rush for headlines," said Veith. "They overlooked some very basic rules for running bioassays. They're not experienced with aquatic species. The Duluth lab is, and the results from Duluth are as clear as you can get."

The EPA scientists found that the abnormalities in the NIEHS experiment resulted from a benign ion imbalance in the water samples. When several ordinary salts were added to the waters the frogs grew normally. These imbalances

are common in Minnesota waters and are known to interfere with bioassays. They can also increase the toxicity of chemicals in the water and cannot be ruled out as contributing to the deformities. But EPA scientists say NIEHS and MPCA had no reason to scare the public over possible human health effects.

Jim Burkhardt, the NIEHS scientist who is coordinating the investigation with MPCA said he was unhappy about making the public announcement before fully interpreting the data. "We had no intention of going public until we were further along," said Burkhardt. "But the MPCA insisted, and we had to respect their call even though we didn't have all the answers."

Judy Helgen, a research scientist with MPCA confirmed the decision was theirs and that they would make the same decision today. MPCA was concerned that word of their findings was already beginning to spread and that deliveries of bottled water to homes near wetlands with deformed frogs would cause panic. "We felt as a public agency we needed to let people know exactly where research was at," said Helgen. "As scientists, none of us wanted to go public. We're already doing too much of this work in the public eye."

(Forwarded by Brian Swingle, Wis. Dept. Of Ag., The Washington Post, November 3, 1997)

TACKLING PESTICIDE CHEMOPHOBIA

DowElanco, in cooperation with the agrichemical industry established a Consumer Information Program. Part of this program included a survey on perceptions of pesticides. The objective of the survey was to learn what the public believed about pesticides and why they believed what they did, then the company hoped to identify positive messages that would help to change beliefs if they were incorrect.

Cancer was the biggest concern of the sample groups with concerns about worker safety following. Consumers wanted organic farming practices to increase and felt the technology to do so was available but, for a variety of reasons, felt that growers choose to use pesticides instead.

Some of the statements that DowElanco identified as not helping the public's concern about pesticides include:

1. "There is a one in a million chance that ...will happen" is not comforting as many people can not relate to the ratio of one in a million.
2. "We feed the world." The argument that the world needs to be fed and that pesticides are a necessary tool to do so is not a good argument.
3. Stating that "natural carcinogens are all around us" is not effective in abating a person's fear of pesticides. The sampled group of people indicated that since natural carcinogens have evolved with humans in our environment we must have the ability to metabolize them.
4. Announcing the drawbacks about organic foods does not help justify the use of pesticides. Explaining that the agricultural chemical industry supports IPM and sustainable agriculture is a better approach.

Useful messages that could be used according to DowElanco include:

1. Each pesticide must undergo a rigorous testing process which includes more than 120 separate tests, takes eight to ten years and costs a manufacturer between \$35 to \$50 million before a product is registered for use by the EPA.
2. On average, only one in 20,000 chemicals makes it from the chemist's laboratory to the farmer's field. Once registered for use, the pesticide continues to be monitored by the EPA, FDA, and regulatory agencies of individual states.
3. According to the National Cancer Institute, there is no scientific evidence that ingestion of pesticide residues on fruits and vegetables causes cancer in human beings. Medical experts agree the benefits of eating fruits and vegetables far outweigh any potential risk.

4. A 40 pound child could eat 340 oranges every day for the rest of his or her life and still not consume the amount of pesticide residues found to cause health problems in laboratory mice. By the same token, a 150-pound adult could eat 875 pound of broccoli and a 20-pound child could eat 873 apples. (Pesticide Coordinator Report, September 1997)

NEWS NOTES (The following news briefs were taken from U.S. EPA OPPT Newsbreak, listserv)

"EPA Finds Most Pollution In Urban, Farm Watersheds."

The EPA has released its first index of water quality indicators. The study finds that urban, coastal, and farm areas tend to have the worst pollution. Of the nation's 2,111 watersheds, 16% have good water quality, 36% have moderate water quality, and 21% have serious environmental problems. The index, which doesn't include Alaska or Hawaii, did not have enough data to rate 27% of U.S. watersheds. (Wall Street Journal, October 3, 1997)

"New York City Declare War on Rats--All 28 Million of Them."

New York City's rat problem will be in the spotlight following Mayor Guiliani's declaration of war against the hated pest. The city is promoting a well-financed, high-profile anti-rat campaign that targets many of the city's poorer neighborhoods. Rats the size of small dogs are often seen outside a school where children show up daily with rat bites. The Big Apple will use two types of poison to control the wretched rodents; one results in instant death upon consumption by rats, the other thins rat blood and kills them slowly. The city has formed a Rat Patrol to educate the public; litter, trash, and garbage are blamed for the huge explosion in the rat population. (Washington Post, October 4, 1997)

"EPA Sets Up Special Web Sites"

EPA is working with trade groups to create web sites for small businesses; sites include regulations, lists of vendors, primers on pollution prevention techniques, and areas for companies to talk to "other companies facing the same challenges." The URLS given for farmers (<http://es.inel.gov/oeca/ag/aghmpg.html>). (Washington Post, November 3, 1997)

PAT POSITION OPENING AT MSU

Michigan State University, PAT Program Vacancy: Academic Specialist, Pesticide Research Center, Michigan State University East Lansing, MI.

Duties: Primary responsibility is development and revision of PAT manuals. Coordinate necessary expertise for manual development. Work closely with the Michigan Department of Agriculture regarding manual revision, certification exams, and programs. Organize and/or assist with PAT related programs (for example, Safe FLY-IN for aerial applicators); develop, edit, deliver, and evaluate other PAT related materials as needed for campus and field staff. Produce, edit, and evaluate a bi-monthly "Pesticide Notes" newsletter for campus staff, MDA, and extension personnel. For more information contact Chris DiFonzo, Michigan State University, Department of Entomology, 243 Natural Sciences Building, East Lansing, MI 48824, ph: 517-353-5328

EPA REGION 5 FINISHING TESTING HOMES

In Chicago, the EPA is wrapping up its testing of homes that may have been sprayed with methyl parathion. EPA Region 5 has tested 808 homes, of which 505 showed pesticide residues at potentially hazardous levels and 86 qualified for decontamination. (P & T News, October 22, 1997)

METHYL BROMIDE UPDATE

EPA recently released a booklet of 10 case studies regarding strong alternatives to methyl bromide. Among the candidates are metam sodium, organic farming, solarization, heat treatments, irradiation, and integrated pest management. Other alternatives described in the booklet are plant grafting for disease resistance, hydroponics, combinations of the fumigants Telone, chloropicrin and Tillam and products that use phosphine and carbon dioxide for structural fumigation.

Among the alternatives, metam sodium is a strong contender due to its low cost and wide range of control. Carbonyl sulfide has also shown to be effective in stored commodities and timber due to its high penetrability and mobility.

“Representatives from 163 nations met in September to confirm dates for an international phaseout of methyl bromide. While its own phaseout is scheduled for 2001, the U.S. did not push for a more rapid international ban at the conference.” (Ag. Chem News, November 15, 1997)

BIG WALNUT WATER QUALITY PROJECT

In early September, representatives from the farm community, federal extension service, ODA, and other interested parties attended a formal kickoff of this project. This water quality project is preventative in nature and involves cooperation between regulators and the business community. The ultimate goal of the project is to avoid any future problems for Ohio's water sources. (OPARR News Flash, October 13, 1997)

EPA HEIGHTENS READABILITY AND INFO ON PESTICIDE LABELS

In 1996, EPA began a Consumer Labeling Initiative which has as its goal the improvement of consumer product labeling. Based on received comments, the EPA has published several Pesticide Regulation (PR) Notices in 1997 that are changing pesticide labels. The label changes that will be seen are: 1. Telephone numbers and Internet addresses will be included, 2. Increased use of “common names,” and 3. An adjustment in “inert” ingredient listings. For a detailed summary of the changes listed, browse the EPA web site at (http://www.epa.gov/docs/oppmsd1/PR_Notices/index.html) (The Label, Univ. Of Nebraska-Lincoln, November 1997)

USEPA DEBATING ON LANGUAGE IN FQPA BROCHURE

When Congress passed the FQPA, it determined that the EPA must develop materials for consumers that explained risks and benefits of pesticides on foods. EPA is in the process of developing a brochure that will be distributed to all retail grocery stores in the U.S. explaining pesticide risk to the consumer. This is not an easy task to do, and even harder to do quickly.

The draft of the brochure shows a mom with her children washing fruits and vegetables on the cover. The tone, wording and graphics of the brochure will be commented upon by many stakeholders and then tested on consumers. But even before the brochure gets to the testing stage, staff members at EPA are dealing with difficult items like whether to include organic foods as a way to reduce exposure to pesticides. Just the mention of organic foods in the brochure is a much debated topic.

Other commenters state that the brochure is a mockery and does not deal with the issue of risks of pesticide on foods. And, there are other concerns that the brochure may be misleading to the consumer by indicating that the FQPA standards are already in effect, but they are not.

Finally, EPA staff members are concerned about distribution of the brochures and whether the grocery stores will display them. EPA is required by law to produce the brochures, but grocery stores are not required to display them. The controversy continues. (P & T News, October 29, 1997)

FQPA JURISDICTION SOLUTION

The EPA and FDA used some creative problem solving recently when faced with a jurisdiction question regarding whether food is raw or processed. The question arose with the passage of the Food Quality Protection Act.

Instead of trying to define whether food is raw or processed, the two agencies agreed to redefine "pest" in EPA regulations. "Under the new definition of "pest," more uses of antimicrobial substances will be deemed food additives instead of pesticides ... by excluding from the definition the occurrence of microbes in certain situations." (P & T Chem. News., October 8, 1997) It is the agencies hope that this will be published in the Federal Register this season. After the notice is published, "EPA will amend its regulations to delegate to FDA authority over certain uses of antimicrobials." (P & T Chem. News., October 8, 1997)

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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Keith L. Smith, Director, Ohio State University Extension.