



PEP-TALK

OSU Pesticide Education Programs

Vol. 1 Issue 5 June 1996



Included In This Issue...

In this issue:

- I. Pesticide Residues Book Review
- II. Food Residues Report
- III. Spotlight on Methyl Bromide
- IV. Progress Update on Pesticide Reregistration
- V. Chemical Label Update
- VI. PSSST.....

Pesticide Residues

PUBLICATION REVIEW: "Pesticide Residues - Reducing Dietary Risks" By Bob Bellinger

I just received a publication titled "Pesticide Residues - Reducing Dietary Risks" (USDA, Economic Research Service, Agricultural Economic Report Number 278 (AER-278). January 1996. 30pp. I found it very informative, especially some of the implications the authors note. Plenty of data, references. Here are a couple of teasers:

Consumer dietary intake [of pesticide residues] comes from four sources: on-farm pesticide use, post-harvest pesticide use, pesticides used on imported food and canceled pesticides that persist in the environment.

Post-harvest uses account for the largest share of dietary intake of residues, but canceled and persistent chemical appear among the highest risk indicators.

Research to develop on-farm pest control alternatives will NOT address all of the sources of these residues.

The results [of part of the study] suggest that increasing fruit and vegetable consumption to meet health recommendations should not cause concern about dietary intake of pesticide residues.

[Dietary] risk indicators are only one of several criteria that

could be used to set priorities for development of alternative pest control techniques. Environmental impacts, water quality, and worker safety play important roles.

This publication is available from ERS-NASS, 341 Victory Drive, Herndon, VA 22070, or call 1-800-999-6779. Cost is \$9.00. (Bob Bellinger, Entomology, Ext. Pesticide

Food Residues Report

"Illegal pesticide residues are rare." Chuck Andrews, Chief, California EPA says this is the finding of California's fresh fruit monitoring program. After "years" of federal and state monitoring, results indicate that residues are "typically at exceedingly low or undetectable levels." Andrews said that these findings should supply consumers with "reassurance ... about the safety of the fruits and vegetables" consumed.

Reports from the National Academy of Sciences show that synthetic chemicals, such as pesticides, are present at levels "so low" in human diets that they are 'unlikely to pose an appreciable cancer risk,' and the Academy also determined that diets "rich in fruits and vegetables" are "clearly associated with reduced risk of cancer" said Andrews (Pesticide and Toxic News, 2/28/96).

The "1994 Residues in Fresh Product" report, stated that 5,588 samples were collected in the Marketing Surveillance Program and put through extremely stringent testing. "No residues were detected" in 66% of samples taken from California's seaports, "other" points of entry, packing sites and wholesale outlets"(Pesticide and Toxic News, 2/28/96). Sampling also included produce sold to the consumer via organic and farmers' markets. The majority of the remaining residues reported were within the "legal safety limits" established by EPA.

Also mentioned in the report were five samples that had residues greater than the tolerance level. Of the five illegal findings, four of them resulted from the use of mevinphos. Mevinphos is being phased out and in addition to the phaseout guidelines, Department of Pesticide Regulation and county agricultural commissioners placed "strict safety measures over and above" the current measures. "After the mevinphos samples were collected, the increased use requirements included extending the preharvest intervals and time between

applications. According to the report, these efforts "mitigated the illegal residue problem" (Pesticide and Toxic News, 2/28/96).

Imported and organic produce are also monitored by DPR. The report noted that the amount of illegal residues in foreign originated produce was down to 2.83% in 1994, from 2.96% in 1993. Even though organic produce must be grown without the use of chemicals, crops may still "pick up" residues from previous years in the soil, the report noted. In 1994, DPR found that only one sample contained an illegal residue out of 47 samples collected.

A complete report can be obtained for \$9.00 or a report without data tables can be obtained for free from DPR, 1020 N. Street, Sacramento, Calif. 95814, 916-445-3920. (DPR, "1994 Residues in Fresh Product"; Adapted from Pesticide and Toxic News, 2/28/96)

Methyl Bromide

SPOTLIGHT ON METHYL BROMIDE

"Methyl bromide is the most widely used and universally effective fumigant in the world. However, it has been subject to two major regulatory actions in the past few years. The first was the United Nations' Montreal Protocol on Substances that Deplete the Ozone Layer which eliminates the use of methyl bromide in industrialized countries in 2010. Independently, the U.S. Clean Air Act will bring about a ban on production or importation in the USA after January 1, 2001. The reason for these actions is the current scientific opinion that methyl bromide emissions contribute significantly to the destruction of the ozone layer in the stratosphere." (Taken from a report by Sims, Becker, McGriffen, Univ. Of California, April 1996.)

In addition to using MB as a soil fumigant, it is also used in postharvest storage and quarantine treatments to control pests on various crops. Since 1991, the USDA and EPA have brought together scientists and representatives from the agricultural community to evaluate alternatives to MB. Proceedings of the conferences have guided subsequent USDA research decisions aimed at finding viable alternatives.

One of the major incentives for finding alternatives is the risk of lost international markets that require MB quarantine for imported commodities from the United States. Even though the United Nations has determined that MB will be eliminated in industrialized countries by 2010, the United States must still comply with the Clean Air Act by the 2001 deadline.

In January 1996, Congress allocated \$750,000 for MB work, \$550,000 of that goes to Florida and California research groups for large scale field tests of alternatives to MB because the agricultural industries in these states will be most affected by the ban. For example, with the MB ban, Florida could lose \$600 million annually for the winter growing season alone.

What are the possible alternatives? Will this situation compromise economic survival? To date, has research given us any hope toward an efficient and effective alternative to MB? Answers to these questions are not clear-cut or complete. Representative John Dingell, member of the House Commerce Committee commented that "studies done by USDA... have concluded that the alternatives to the substance are less effective in controlling soil pests and cost more." (12/25/95) Floyd Horn, Agricultural Research Service stated that "No one approach is likely to satisfactorily replace MB. A combination of approaches packaged into a 'system' will be necessary." (1/96)

In the meantime, reregistrations are still proceeding for MB, although some uses are likely to be dropped. The last reregistration is expected to be submitted by 1997. Decisions on whether or not to reregister the product is expected in the fall of 1998. Congressmen are working to extend MB's availability to growers and members of other industries. Representative Dan Miller (R-FL) has introduced a bill that would allow MB to be banned only if USDA finds a viable, cost-effective substitute. Rep. Sam Farr (D-CA) has also called on Congress to extend the phase-out of MB as a crop pesticide until alternatives are discovered. Field work continues in California with strawberries, perennial crops, orchard and grapes and in Florida on tomatoes.

If you would like more information or copies of the MB newsletter, just call the PAT office, (614)292-4070. (Methyl Bromide Alternatives, Jan. 1996, April 1996)

Pesticide Reregistration

PROGRESS UPDATE ON PESTICIDE REREGISTRATION

EPA is required by law to reregister existing pesticides that originally were registered years ago when the standards for government approval were less stringent than they are today. This process results in Reregistration Eligibility Decisions (REDs) for all products containing active ingredients initially registered before November 1, 1984.

In 1988 approximately 600 groups of related pesticide active ingredients, or "cases," representing 1,150 active ingredients in 45,000 formulated products, required reevaluation. Of those, over 200 cases and 20,000 products have been canceled because the producers failed to support them or EPA has taken regulatory action to cancel them. Of the remaining 382 cases being supported, EPA has made reregistration eligibility decisions on 129 cases, to date.

EPA's regulatory conclusion about each case is presented in a RED document. Later, once product-specific data and revised labeling are submitted to EPA and approved, the Agency reregisters products containing the eligible pesticide(s). A

pesticide product is not reregistered, however, until all of its active ingredients are eligible for reregistration.

EPA completed 40 REDs in fiscal year 1995 (FY '95). EPA's goal is to complete 40 REDs in FY '96 and an additional 40 REDs during FY '97. The public is invited to submit information to assist the Agency in prioritizing pesticides for reregistration eligibility decisions in FY '97. EPA is interested in knowing which of these pesticides are of the greatest interest or concern to the public from a human health or environmental perspective, and why, so that their limited resources may be focused most effectively.

Electronic copies of many completed RED's and RED fact sheets can be downloaded from the Pesticide Special Review and Reregistration Information System at 703-308-7224, and also can be reached on the Internet via fedworld.gov and EPA's public access gopher server (gopher.epa.gov).

If you would like a complete listing of 1995, 1996 and 1997 RED pesticides, it is available from the OSU Pesticide Applicator Training office.
(Online Federal Register: May 15, 1996, Lois Rossi, Director, Special Review and Reregistration Division, Office of Pesticide Programs)

Chemical & Label Update

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

Allyl Isothiocyanate as a Component of Food Grade Oil of Mustard; Exemption From Requirement of a Tolerance

This rule establishes an exemption from the requirement for a tolerance for residues of the insecticide and repellent, allyl isothiocyanate (as a component of food grade Oil of Mustard), in or on all raw agricultural commodities, when applied according to approved labeling. (Federal Register 5/96)

Bonzi

Dahlias have been added to the label of the growth regulator Bonzi (paclobutazol). Also, label wording prohibits the re-use of pots, trays, etc. previously used in production that were treated with this product. (Chemically Speaking, 5/96)

Cyfluthrin

Time-limited tolerances have been established with an expiration date of November 15, 1997, in or on the raw agricultural commodities (RAC's) alfalfa, sunflowers, and fat of cattle, goats, horses, hogs, and sheep; and an expiration date of July 5, 1999 for residues of cyfluthrin in or on sweet corn. (Federal Register 3/14/96)

Dimilin

Control of beet armyworm, fall armyworm, velvetbean caterpillar, Mexican bean beetle, and green clover worms on soybean, and the control of cabbage looper, saltmarsh caterpillar, southern armyworm, and yellow striped armyworm on cotton, has been added to the Dimilin (diflubenzuron) label. (Chemically Speaking, 5/96)

Imidacloprid

A pesticide tolerance for residues of the insecticide Imidacloprid and its metabolites in or on pome fruits including apple, pear, crabapple, loquat, mayhaw, pear (oriental) and quince, and in or on apples, pomace (wet or dried) has been established. (Federal Register 5/3/96)

A tolerance for residues of the insecticide imidacloprid and its metabolites in or on canola seed has been established as well at 0.05 parts per million (ppm). (Federal Register 1/13/96)

A time-limited tolerance for indirect or inadvertent combined residues of the insecticide imidacloprid and its metabolites resulting from crop rotational practices in or on the raw agricultural commodities in the cucurbit vegetables crop group has also been established. (Federal Register 12/13/95)

Kryocide

Due to the high cost of reregistration, the uses of kryocide (cryolite) that will probably not be supported include radishes, beans, mustard, turnips, and apples. (Chemically Speaking, 5/96)

Pelargonic Acid; Granted an Exemption From the Requirement of a Tolerance on Apples and Pears

Provided the chemical is used as a blossom thinner only and is in a dilution of 100 gallons of water applied to blooms at a rate not to exceed 4.2 lbs/acre with the maximum number of applications not exceeding two per year. Effective on February 14, 1996. (Federal Register 11/15/96).

Propargite Uses Canceled

The EPA reached an agreement with Uniroyal Chemical Company under which the company will voluntarily cancel certain uses of the miticide propargite (Omite, Comite, Ornamite) to mitigate any potential unacceptable risks the chemical may pose. The uses canceled under the agreement include those for apricots, apples, peaches, pears, plums, figs, cranberries, strawberries, green beans, and lima beans. (Chemically Speaking, 5/96)

Provado

Provado (imidacloprid) had added to its label control of thrips on mangoes, and control of aphids, adelgids, and sawflies on Christmas trees. (Chemically Speaking, 5/96)

Ridomil Bravo 81W

Carrots have been added to the Ridomil Bravo 81W (metalaxyl/chlorothalonil) label. (Chemically Speaking, 5/96)

Strike 25

Strike 25 (triadimefon) can now be used on hydrangea and poinsettia. (Chemically Speaking, 5/96)

Tebuthiuron; Pesticide Tolerances

This final regulation establishes lower tolerances for residues of Tebuthiuron on grass hay and grass rangeland forage and changes the commodity name grass, rangeland forage to grass, forage. This becomes effective July 2, 1996. (Federal Register 5/96).

Tolerances Revoked for Three Herbicides

EPA is proposing to revoke the tolerances for residues of three herbicides. The revocation for these three compounds will be delayed until March 1, 1999, to allow growers who may still have stocks of these pesticides on hand to use up their supplies and permit any treated raw commodities and products to move through market channels. The products and specific commodities include:

- Amibem (chloramben): carrots, celery, onions, soybeans, and strawberries;
- Tenoran (chloroxuron): beans, cantaloupes, corn, cucumbers, peanuts, pigeon peas, peppers, pumpkins, soybeans, squash, sunflowers, sweet potatoes, and tomatoes; and,
- Antor (diethatyl-ethyl): beets, spinach, and sugar beets. (Federal Register 4/3/96)

Pssst....

New research is showing that there is a threshold level for the triazine herbicides below which no estrous effects or tumors occur. Also reported was that triazine exposures are suggested to be overestimated by 10- to 1,000-fold by EPA, and that only eight of 1,500 sampled water wells exceeded federal standards for acceptable triazine levels. (Chemically Speaking, 5/96)

Camille Roush-Kopczewski

Editor, Extension Associate

Pesticide Appl. Training

E-mail:

roush-kopczewski.16@osu.edu

Joanne Kick-Raack

Coordinator

Pesticide Appl. Training

E-mail:

kick-raack.1@osu.edu

Pesticide Applicator Training Office

Rm. 249 Howlett Hall

2001 Fyffe Ct.

Columbus, OH 43210-1096

Phone: (614)292-4070

Fax: (614)292-3505

