

## UPDATE

### Pesticide testing bears problems

Tests on pesticide toxicity have been judged invalid because of too few or sick animals used, tests were not done at the maximum tolerated dose, incomplete microscopic examination, inaccurate recordkeeping, and poor monitoring, said Marcia Williams, director, Special Pesticide Review Division (SPRD) of the EPA.

She said that reliable data are also lacking with exposure information. Specifically, data are missing on individual exposure to pesticides in food, air, and water and on rates at which pesticides reach target organs. Another lack was a mechanism to factor in individual sensitivities or thresholds, she said. And it is difficult and expensive to design experiments encompassing variables such as wind, temperature, humidity, clothing, and type of application.

The expense, uncertainty, or unavailability of methods to detect chemicals or contaminants must be considered in economic/benefit information. Williams' talk was directed to the Great Lakes Pesticide Council.

### USDA plans \$4.3 mill. in IPM funds by 1990

A national urban Integrated Pest Management program starting in FY 1982 with \$50,000 for 50 pilot workshops and no specific staff could grow into a project with a staff of 101 and a budget of \$4.3 million by 1990, projects the U.S. Department of Agriculture. The plans were issued in a report, "Urban Integrated Pest Management," published by the Cooperative Extension Service, the University of Georgia-Athens.

The report listed seven urban IPM benefits: Offering clients alternative methods of pest control; saving on spiraling pesticide costs where other alternatives are available; public acceptance of commercial control programs that incorporate the concept of threshold pest levels; reduced exposure and environmental contamination; improved pest control; reduced pesticide storage and disposal problems; and delaying the development of pesticide resistance.

The State Cooperative Extension Services are in "a unique position to provide leadership in urban IPM," according to the report, and can do the job given sufficient staff and funds. However, it said, "assigning responsibility for urban IPM to already busy extension specialists in entomology, plant pathology, or other pest control disciplines without additional support has not succeeded in the past. Nor has vesting this responsibility in an urban horticulturist been successful; for such a person is not equipped to deal with public health, household and wood-destroying pests. The employment of multi-discipline-oriented IPM urban leaders in the states is essential."

### Scientists examine exposure to 2,4-D

A study of two groups of workers who applied 2,4-D to wheat fields in two areas of the country has concluded that less than 1 gram of this herbicide enters the body of an average 175-pound worker.

Since evidence suggests that the amount of 2,4-D excreted is equal to the amount absorbed, scientists measured the urine of workers involved in ground or aerial applications. Ralph Nash, a U.S. Department of Agriculture chemist who specializes in analyzing pesticide residues, cited studies that 2,4-D is not metabolized in the human body, but rather passes through unchanged after a large dose is ingested. Studies on a similar herbicide, 2,4,5-T, substantiate this finding, he said.

Results showed that absorption is directly related to the type of job, the amount of herbicide applied, and the length of time it is handled. Those who mixed and loaded 2,4-D had the highest total absorption—0.02 milligrams per kilogram of body weight (or 1.6 milligrams for a 175-pound person). The least exposed group, pilots, absorbed less than one-third that amount.

Information from this study and others will be evaluated by the USDA, EPA, and other federal agencies. Absorption data will be compared with toxicity data when 2,4-D is reevaluated.

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stock worth more than \$12 million. 350,000 of the shares had been owned by principal shareholders.

Mary Jane Goldwaite, vice-president and general counsel, said her company is optimistic about the stock, valued in January at \$17 per share. The lawn care industry is recognized as a bullish market and ChemLawn is the largest company in the market with sales in excess of \$100 million in 1980.

### CONTAINERS

#### AAN group suggests new container sizes

The use of size designations in gallons for containers has been criticized by the Horticultural Committee of the American Association of Nurserymen.

The committee said that containers or pots which are markedly different in shape may have large variations in volume. The panel recommended a number designation for various pot sizes and shapes to restore direct comparison by nursery buyers. Several wholesale nursery firms have already dropped the gallon designation in their catalogs.

### RECLAMATION

#### Hydrologist recycles native shrubs, grasses

A hydrologist with a Colorado coal company is using the seeds he collects on mining sites to revegetate the same land after mining is over.

Doug Bowman, environmental coordinator for Mid-Continent Resources, Inc., decided to develop his own source of shrubs and grasses when the state of Colorado began encouraging revegetation with natural materials. During the summer, he and a small crew pick seeds on land which will be disturbed from mining, and give them to a large nursery run by the U.S. Forest Service.

Half of the seeds the nursery nurtures it gives back to Bowman as seedlings for revegetation. The seedlings, already acclimatized to the high altitude, short growing season, and scanty rainfall, grow well when replanted.

Bowman faces another problem with a shallow, highly saline soil base. He is hoping to mix an abundant supply of wood chips with sewage sludge to make a topsoil. "About six inches of compost would help tremendously," he says. "Some land is nonrecoverable and we could use it there."