West Nile Virus Causes Emergency Rulemaking

The relatively high level of West Nile virus in Illinois, including human cases, caused the Illinois Department of Agriculture (IDA) to allow unlicensed individuals to apply mosquito insecticides for the control of the larvae of mosquito vectors. It was felt—that with the number of cases of West Nile virus and the weeks remaining when adult mosquitoes will be active—that there were not enough mosquito applicators to conduct the amount of mosquito control that would be needed.

On August 16, 2002, IDA used emergency rulemaking to allow individuals who have been trained for at least one hour by a licensed mosquito applicator to apply three mosquito larvicides from August 14 to October 30, 2002. These larvicides are (1) Summit B.T.I. Briquets, USEPA registration #6218-47; (2) Zoecon Altosid Briquets, USEPA registration #2724-375; and (3) Zoecon Altosid XR Extended Residual Briquets, USEPA registration #2724-421.

The training must be at least one hour long and must cover the pesticide labels, use restrictions, application rates, application methods, and any other information that the trainer feels is appropriate for the safe and effective use of these three insecticides. The trainer is required to provide to IDA a list of all persons receiving the training. The name, address, telephone number, birth date, and employer of each person trained must be included. The trainer's name, address, telephone number, pesticide applicator license number, and expiration date of pesticide applicator license must also be sent to IDA.

Questions about this emergency rule or training should be directed to IDA at (800)641-3934.

In addition to local training being provided by mosquito applicators, the Illinois Department of Public Health has scheduled more than 20 one-hour training sessions to assist with this process. (Phil Nixon)
Scientific Advisory Panel FQPA Safety-Factor Suggestions

The FIFRA Scientific Advisory Panel (SAP) disagreed with USEPA in the application of a 3X safety factor for children. This concerned organophosphate pesticides for which animal tests showed that young animals were no more susceptible than older animals. In a split decision, the SAP recommended that a 10X factor be used where there is evidence that children consume a higher amount of treated food—regardless of animal test results.

The FIFRA SAP was established under provisions of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) as amended by the Food Quality Protection Act (FQPA) of 1996 to provide advice, information, and recommendations to the U.S. Environmental Protection Agency (USEPA). It serves as the primary scientific peer-review group for USEPA’s Office of Pesticide Programs. It is structured to provide balanced expert assessment of pesticide and pesticide-related matters facing USEPA. Members currently include scientists from the University of Florida, University of California, University of Pittsburgh, National Institute of Environmental Health Science, and Colorado State University. In addition, there is also an FQPA Science Review Board with 10 members from various universities and agencies. Further information on FIFRA SAP can be found at http://www.epa.gov/scipoly/sap.

The FIFRA SAP met on June 26 and 27, 2002, with the topic being the “Determination of the Appropriate FQPA Safety Factor(s) in the Organophosphorus Pesticide Cumulative Risk Assessment: Susceptibility and Sensitivity to the Common Mechanism, Acetylcholinesterase Inhibition.” Although the SAP was not given the task of addressing USEPA’s use of a 3X rather than a 10X safety factor for certain pesticide uses, the issue arose repeatedly over the 2-day meeting.

The SAP recognized that it is a technical advisory body, not a group intended to provide legal and policy advice. However, the choice to apply particular FQPA safety factors in USEPA’s cumulative risk analysis clearly involved both policy and science. A legal and policy interpretation is needed to define the amount of information required to utilize any standard other than the mandated default tenfold factor in any ultimate risk-management decisions that might be made on the basis of the cumulative-risk analysis. Technical judgments are also needed in assessing whether any particular standard of evidence has been met by the data available for individual organophosphate pesticides or acetylcholinesterase inhibitors as a group with a common mechanism of activity.

A majority of the SAP members who commented disagreed with USEPA’s proposal to deal with the FQPA requirements to ensure protection of infants and children by selective application of a 3X safety factor. They concluded that the available data was not sufficient to assure adequate protection with less than the 10X FQPA safety factor. Other SAP members were prepared to accept USEPA’s proposal, some with certain reservations.

USEPA has proposed to not apply the full 10X FQPA safety factor in cases where animal studies have indicated that younger animals (rats) are no more sensitive than adults by repeated exposure to organophosphates. USEPA proposes to apply a 3X safety factor (described as a database uncertainty factor) in cases where chemicals have been shown to be about threefold more potent in weanling rats than in adults. USEPA also proposes to apply the same safety factor to the 24 remaining chemicals currently under review, while awaiting receipt of new data from ongoing studies of developmental neurotoxicity in rats.

SAP members cited various reasons why USEPA should apply a uniform 10X FQPA safety factor. The main reason was that the existing animal data do not completely show that young children are no more at risk than adults from exposures to organophosphates. This finding was due to several deficiencies in USEPA’s cumulative-risk analysis. These deficiencies include the following:

1. Extrapolation from data on a limited set of compounds. USEPA proposes to use a threefold factor for cumulative risk assessment based on the relative sensitivity to cholinesterase inhibition from a set of six organophosphorus toxicants. At most, an approximate threefold difference in sensitivity to cholinesterase inhibition was noted in younger animals following repeated dosing. USEPA considered that these six compounds are representative of the range of variability for all 30 compounds under consideration. The effect of age on sensitivity to cholinesterase inhibition by the other 24 organophosphate toxicants is unknown. It was felt that this data gap alone was enough to make it wise to accept the 10X default.

2. Uncertainties about the mechanisms of age-dependent sensitivity in young rats and their applicability to human beings. Even with the six compounds known to have relatively small differences in sensitivity in young rats compared to adult rats, relating the results to humans is difficult. First, how sensitivity changes as rats get older is not completely known. More importantly, it is not completely known whether young humans chemically change or otherwise process organophosphates more or less effectively than adults. Without detailed information of this sort (admittedly difficult to obtain), one cannot be sure that the relatively rapid decrease seen in organophosphate sensitivity in weanling rats will also apply to children in the critical 1-to-2-year-old age group.
3. Limitations of animal models to identify effects of cholinesterase inhibition in children. While USEPA noted that the organophosphate cumulative-risk assessment is based on acetoxycholinesterase inhibition and cholinergic toxicity, SAP feels that more appropriate measures of whether an exposure to organophosphates are "safe for children" are needed, particularly those associated with behavior and brain function (including IQ, attention span, and language use). For example, it is not known whether a certain inhibition of acetoxycholinesterase affects a young child the same as an adult. Current information is lacking on how sensitive, specific, and predictable neurobehavioral effects are when caused by organophosphates in animals. In addition, this information is also lacking high-quality epidemiological studies of pesticide exposure to infants and children. The lack of long-term neurobehavioral studies at any stage of development creates a great deal of uncertainty in trying to identify the risks of the organophosphates to children.

4. Uncertainties about the potential frequency of "high-level exposure." Another factor in using the FQPA safety factor is whether exposure assessment truly addresses high-end exposures, particularly in children. One SAP member pointed out that although USEPA proposes to consider these exposures in the cumulative-risk assessment, these estimates may not be as high as the percentiles imply. As evidence for this, an example was cited in which consumption of small amounts of a single food item (for example, apple or pear) containing a single organophosphate at the upper end of its Pesticide Data Program range could result in exposure above the 95th percentile for cumulative dietary exposure calculated by USEPA. In view of this, an argument could be made for an additional FQPA safety factor if the measure for risk-management decision is a percentile of exposure that does not adequately address infrequent, but not rare, exposures.

While aware of all these issues, other SAP members nonetheless felt that USEPA’s proposal for a 3X safety factor was reasonable, with certain provisions. The major provision asked for by some of these panel members was to use a 3X safety factor even for agents that showed no age-dependent sensitivity in rats and an increase to 10X in the case of agents that have not yet been evaluated for potential age-dependent sensitivity.

This position was based on a reasonable level of confidence in the existing information for the six different organophosphate anticholinesterases evaluated for sensitivity in both young and adult animals. None of these compounds has more than a 3X increase in potency in weanling compared to adult rats, and several show identical potency in these two age groups (for example, methamidophos).

It was felt that the animal data can be extrapolated to humans in light of recent data that show the mechanisms of age-related sensitivity to organophosphate anticholinesterases indicated a similar rapidly maturing during the period equivalent to early infancy, with near-adult levels in humans reached by the time of weaning in rats. Experiments indicated that at least a large portion of the age-related sensitivity is due to the maturation of enzymes involved in metabolism and elimination of these chemicals. Although similar information on humans is not complete, the species extrapolation is strengthened by information on A-esterase maturation that indicates a similarly rapid maturation during the period equivalent to early infancy, with near-adult levels in humans reached by the time of weaning in rats.

Finally, one SAP member noted that many of the agents in question have been in use for decades and yet, despite isolated cases of acute toxicity, no clear evidence of developmental abnormalities has emerged.

(Phil Nixon; source: minutes of the June 26 and 27, 2002 FIFRA SAP meeting)

**Alternative Crops: More Than Meets the Eye in Illinois**

Ask anyone what crops come to mind when you mention Illinois, and they’ll more than likely tell you corn and soybeans. I’d bet that few people, if anyone at all, would mention crops such as pumpkins and horseradish. Why would they? With an estimated 11.6 million acres of corn, 10.3 million acres of soybeans, and 680 thousand acres of winter wheat planted in 2002, odds are that most folks never even see or notice an occasional “alternative crop.” Nevertheless, the alternative-crop production statistics for Illinois are impressive. Nationally, Illinois ranks first in the production of pumpkins and horseradish, third in popcorn, fifth in lima beans, and seventh in snap beans and sweet corn. It is estimated that Illinois producers will account for over 85% of the processing pumpkins and over 50% of the horseradish produced in the United States during 2002. Many alternative crops are grown in Illinois, and it is estimated that the top 50 vegetable crops are grown on about 120,000 acres and have a combined value of over $600,000,000.

Clearly, Illinois producers have demonstrated that Illinois has tremendous potential for fruit and vegetable production. However, developing, promoting, and sustaining any alternative crop is certainly no easy task. A number of resources is available to help support these producers and, quite possibly, to further enhance the diversity of Illinois agriculture.

**Alternative crops project.** With support from the Illinois Council on Food and Agricultural Research, the Illinois State Water Survey published a Web site (www.sws.uiuc.edu/data/altcrops/) this summer that features 414 different crops and their suitability for Illinois. Suitability is based on soil and
climate requirements such as pH, drainage, texture, temperature, precipitation, winter minimum soil temperature, and growing days. You can easily generate an overall suitability index map, as well as suitability maps for the individual soil and climate factors. The site is designed to help producers easily identify and find information on crops that they might like to grow. It does not address market conditions, seed/seedpiece availability, production practices and machinery needs, pest control, or other economic issues. Think of this site as an agronomic starting point.

**Task force.** In December 2001, fruit and vegetable specialists from all over the state formed the Fruit and Vegetable Crops Task Force. The main goal of the task force is to improve production and marketing of fruit and vegetable crops in Illinois. The task force includes about 35 members and meets in Urbana each month. The list of members will soon be published on the University of Illinois Department of Crop Sciences Vegetable and Fruit Crops Pathology Web site ([http://babadoost.cropsci.uiuc.edu/](http://babadoost.cropsci.uiuc.edu/)). Inquiries can be addressed to M. Babadoost (217)333-1523, babadoos@uiuc.edu.


**Pathology Web site.** This relatively new Web site ([http://babadoost.cropsci.uiuc.edu/](http://babadoost.cropsci.uiuc.edu/)) provides disease identification and management information for 27 vegetable crops and 13 fruit crops. In addition, there is a news section where you'll find the latest information about various diseases, product updates, and relevant industry news.

**Publications.** The following publications are available through your local University of Illinois Extension office or by calling (800)345-6087. When the resource is available online, the URL is provided.

- Midwest Tree Fruit Pest Management Handbook, [http://www.ca.uky.edu/agc/pubs/id/id93/ch_1.htm](http://www.ca.uky.edu/agc/pubs/id/id93/ch_1.htm)
- Illinois Fruit Tree Spray Guide
- Illinois Pesticide Applicator Training Manual 39-17: Fruit and Vegetable Crops Pest Control

[Bruce Paulsrud; sources: Personal communication, M. Babadoost, Department of Crop Sciences, University of Illinois, Urbana, IL (9/11/02); Illinois Agricultural Statistics Service's June Acreage Report, [http://www.agstats.state.il.us/releases/acreage.htm](http://www.agstats.state.il.us/releases/acreage.htm) (9/11/02)]

**Recycling Pesticide Containers.**

The growing season is winding down, and spraying is all but complete for most crops in Illinois. Some winter-annual weed-control programs or other fall applications may be just getting started. Is your chem shed cluttered with empty triple-rinsed chemical jugs? If you are wondering what to do with them, recycle them!

Plastic from pesticide containers can be recycled into a number of products including pallets, new pesticide containers, fuel for cement kilns, fence posts, roadside signposts, guardrails, drainage tile, sewage tile and hazardous waste drums.

Only clean containers can be recycled. A container must be rinsed, clean, and dry. For your safety, the safety of those who work with the recycling process, and the safety of the consumer of the recycled product, follow the checklist below. If not rinsed and clean, your containers won’t be accepted.

- **Protection:** Always wear protective clothing while rinsing containers.
- **Empty:** Completely empty the pesticide container.
- **Clean:** Triple-rinse or pressure-rinse the container immediately after use to prevent drying or caking of formulation residues.
- **Inspect:** Inspect the container inside and around the spout threads to ensure that it is free of formulation residues. Clean but stained (for example, due to Treflan) containers are acceptable.
- **Remove:** Discard the cap, foil seal, and label from the container because they will not be accepted for recycling.
- **Puncture:** Render the container unusable by puncturing it.
- **Type:** Only containers made from high-density polyethylene (HDPE) #2 plastic are acceptable for recycling.
- **Keep container dry:** The recycler will not accept a container with liquid in it; keep containers out of the rain.

Here’s the scoop on where to recycle your containers. Although one-day collection points are scattered around Illinois during the growing season, they are done for this year. However, there are five permanent collection sites that can take containers for recycling, though anyone taking in containers should call...
Key Atrazine-Reregistration Deadline Delayed

The U.S. Environmental Protection Agency (USEPA) and the Natural Resources Defense Council (NRDC) agreed to ask a federal court to extend a critical deadline for evaluating the herbicide atrazine.

The USEPA filed a motion in federal court on August 9, 2002 asking that the deadline to complete the interim reregistration eligibility decision (IRED) be extended from August 3, 2002, to January 31, 2003. The extension was requested to allow the USEPA time to review new data on the environmental effects of the herbicide.

An IRED is issued for pesticides that are going through the process of reregistration and need a cumulative-risk assessment under the Food Quality Protection Act. An IRED is issued after the EPA performs an aggregate risk assessment for the pesticide. The IRED may include risk-reduction measures, gaining benefits of the changes before the final reregistration-eligibility decision is issued.

The IRED is expected to include data from new studies assessing the herbicide's potential amphibian risk. The EPA must evaluate relevant data from studies submitted before February 28, 2003.

Throughout the process, the EPA will invite scientific and public input, such as scientific peer review, stakeholder meetings, and public comments. For more information on atrazine, visit the USEPA Office of Pesticide Program’s atrazine-reregistration Web page at www.epa.gov/pesticides/reregistration/ atrazine.

(Mark Mohr; source: http://www.epa.gov/opfedad1/ch/csb_page/updates/ atrazinext.htm 9/12/02)

Nozzle Convenience

A recent trend in agricultural nozzles has resulted in improved convenience for applicators, both in the field and during initial calibration. Several nozzle manufacturers now offer a variety of nozzle designs in an all-in-one nozzle-and-cap design. The nozzles are molded to incorporate what has traditionally been the separate nozzle cap. This means no more trying to pop the nozzle and gasket out of a separate cap and dropping one, two, or all three parts into the dirt in no-till stubble. While combined tip-and-cap nozzles have been available from some companies for several years, many more now offer the convenient option.

If your nozzle catalog is old enough to start kindergarten, you should get a new one. A new catalog will fill you in on the many recent improvements in nozzle designs. Just as important is the vast improvement in nozzle-selection tools, like ASAE S572. This standard, or set of rules, gives specific names to different ranges of droplet sizes. You should be familiar with the droplet size range, or droplet spectrum, for each application you make. The terms to know are very fine, fine, medium, coarse, very coarse, and extremely coarse. These are the standard terms that are used to match what the label says droplet spectrum should be, and what the nozzle catalog says droplet spectrum will be for a particular nozzle and pressure. (Mark Mohr)

Pesticide Update

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

Agronomic

ASANA XL (esfenvalerate)—DuPont—Proposed to reduce the preharvest interval from 21 days to 1 day on seed corn. [insecticide]

COURIER (buprofezin)—Nichimo America—Received an EPA label to use on cotton, cucumbers, lettuce, melons, pumpkins, squash, and tomatoes to control whiteflies, plant hoppers, leaf hoppers, scales, and mealy bugs.

PARATHION—EPA has set an expiration date for tolerances of this product at 12-31-05 on the following crops: alfalfa, barley, corn, cotton, rape, sorghum, soybeans, sunflower, and wheat. (FR, vol. 67, 6-8-02) [insecticide]

PENCOZEB (maneb)—Cerexagri—Added to their label the use against scab on wheat.

PONCHO (clothianidin)—Bayer/Gustafson—Being developed by these two companies as a seed treatment on corn and canola. [insecticide]

PURSUIT (imazethapyr)—BASF—Adding to their label dodder suppression on alfalfa.

STAM (propinil)—Dow AgroSciences—Due to the high cost of reregistration, they have deleted from their label the use on cereal grains (barley, oats, and wheat). Unless withdrawn, this change will be effective 12-10-02. (FR, vol. 67, 6-13-02) [herbicide]
YUKON (halosulfuron-methyl/dicamba)—Monsanto—A new combination herbicide being developed for use on corn.

**Fruit/Vegetable**

ABOUND (azoxystrobin)—Syngenta—Added to their label the use on berries and tropical fruits. [fungicide]

ACROBAT (dimethomorph)—BASF—Added to their label the control of late blight on tomatoes.

ACROBAT MZ (dimethomorph)—Under Section 18 of FIFRA, EPA has authorized the use of this product in Illinois through September 30, 2002, on squash, cantaloupes, watermelons, cucumbers, and pumpkins to control crown rot, Phytophthora capsici. (FR, vol. 67, 5-22-02)

APOLLO (clofentezine)—Makhteshim Agan—Proposed to add grapes to their label for mite control.

ELEVATE (fenhexamid)—Arvesta—Added to their label the use on pistachios, the suppression of powdery mildew on grapes, and the control of botrytis on caneberries.

ENVIDOR/DANIEMON (spirodien)—Bayer—A new class of chemistry being developed to control mites in fruit crops. Registration in Europe is expected in 2003.

FLINT (trifloxystrobin)—Bayer—Added to their label the use on pecans, pistachios, stone fruit and tree nuts. [fungicide]

FRUITONE N (NAA)—Amvac—Added to the label for this growth regulator the use to thin pears chemically and to add a concentrated ground-application method and aerial application.

LINDANE—Inquinosa—Due to the high cost of reregistration, the registrant will delete from the label the use on cole crops, celery, collards, lettuce, kale, kohlrabi, mustard greens, radish, spinach, and Swiss chard effective 12-10-02. (FR, vol. 67, 6-12-02) [insecticide]

MO CAP (ethoprop)—Aventis—Due to the high cost of reregistration, they will delete from their label the use on non-bearing citrus trees, effective 12-10-02. (FR, vol. 67, 6-12-02) [insecticide]

PLATINUM RIDOMIL GOLD (mefenoxam/thiamethoxam)—Syngenta—A new combination product for use on potatoes to control various diseases and insects.

QUADRIS (azoxystrobin)—Syngenta—Added to their label the use on mint and peppers. [fungicide]

RENOVENCE (cyfluthrin)—Bayer—A new 20WP formulation being developed for use on vegetables, grapes, fruit trees and nut crops. [insecticide]

**Turf/Ornamental**

DTDA (2,4-D/dicamba/triclopyr)—Riverdale—A new turf herbicide being developed.

NEEM OIL (hydrophobic extract)—EPA established an exemption from residue-tolerance requirements for this product. (FR, vol. 67, 6-28-02)


PRO CONE (gibberelic acid)—Valent—A growth regulator to promote pollen and seed cone formations in various conifer species.

**Structural**

DIMETHOATE—Cheminova—Due to the high cost of reregistration, they will delete from their label residential and industrial uses effective 12-10-02. (FR, vol. 67, 6-12-02) [insecticide]

DINOTEFURAN—Mitsui Chemicals—Being developed to control ants, including fire ants, in noncrop areas; fleas on cats; flies in agricultural and commercial areas; to be used as a premise spray for ants, flies, cockroaches, etc., and to be used as a fogger to control various household insects.

TICK-EX (M etarhizium spp.)—Taensa Inc.—A new biological product, based on a fungus, being developed to control deer ticks. It is being tested to maintain a natural tick barrier around buildings and homes.

**Many**

BENLATE (benomylen)—DuPont—Residue tolerances on the following crops will be revoked by 1-1-06 on broccoli, Brussels sprouts, cabbage, Chinese cabbage, cauliflower, collards, garlic, kale, kohlrabi, and mustard greens; by 1-1-07 on almonds, beans, carrots, celery, cucumbers, melons, nut crops, pistachios, pumpkins, rutabagas, soybeans, spinach, squash, sugar beets, sweet potatoes, turnips, dandelion, and watercress; by 1-1-08 on apples, apricots, bananas, barley, caneberries, blueberries, cherries, citrus, corn, sweet corn, currants, dewberries, grapes, mangoes, mushrooms, nectarines, oats, peaches, peanuts, pears, pineapple, plums, prunes, rice, rye, strawberries, wheat, avocados, and papaya; and by 1-1-09 on eggplant, peppers, and tomatoes. (FR, vol. 67, 7-17-02) [fungicide]

CIMARRON MAX (metsulfuron-methyl/dicamba/2,4-D)—DuPont—A new product for use on pastures and range-lands to control broadleaf weeds in acres enrolled in the Conservation Reserve Program.

CLUTCH (clothianidin)—Arvesta—Registration on pome fruits is expected late next year. It is also being developed for use on grapes, cotton, tobacco, potatoes, turf, and ornamentals. [fungicide]

COUMAPHOS—Bayer—EPA extended time-limited residue tolerances on beekeeper to control varroa mites and small hive mites, to cover a specific exemption issued to Illinois and 45 other states. The tolerances now expire 12-31-04. (FR, vol. 67, 7-17-02)
DIAzinon — According to the agreement with EPA, indoor household uses were canceled 3/01, and all retail sales will stop by 12/02. For all lawn, garden, and turf uses, manufacturing will stop in 6/03; and all sales to distributors will stop in 8/03. 

Manufacturing will be reduced by 25% in 2002 and by 50% in 2003. [Insecticide]

DI SYTSON (disulfoton) — Bayer — The following uses of this product will be phased out by June 2004: barley, wheat, potatoes, and ornamentals. [Insecticide]

KANEMITE (acequinocyl) — Agrokanesho — This miticide is scheduled for EPA registration on fruit trees and ornamentals at the end of this year. It will be marketed by Arvesta.

LPE-94 (lysophosphatidylethanolamine) — J.P. Bio Regulators — EPA registered this new active ingredient as a growth regulator to enhance ripening in the field and increase the shelf life of vegetables, fruits, and flowers. (FR, vol. 67, 6-12-02)

METhYL PARATHION — EPA has established residue tolerances on the following crops: alfalfa, almonds, barley, dried beans, sugar beets, cabbage, corn, cotton, grasses, hops, oats, onions, peanuts, peas, pecans, potatoes, rape seed, rice, soybeans, sunflower, sweet potatoes, walnuts, and wheat. [Insecticide]

METoxyChlor — EPA issued a final rule revoking all residue tolerances for this product (FR, vol. 67, 7-17-02) [Insecticide]

MILESTONE/EVOLUS (azafenidim) — DuPont — The company has stopped production of this product, and sales will be stopped by the end of the year. There are no plans to sell or license the product. [Herbicide]

N-LARGE (gibberellic acid) — Stoller Enterprises — This is a new 4% formulation now available.

XADIXYL — Syngenta — EPA has revoked all residue tolerances for this product effective 7-10-02. However it will not occur until 9-27-03 (FR, vol. 67, 7-10-02) [fungicide]

PLANT SHIELD (Trichoderma harzianum rafai strain KRL-AG2) — Bio Works Inc. — Added to their label the new uses on flowers, bedding plants, ornamentals, berries, small fruits, citrus, pome fruits, stone fruits, nut crops, and hydroponic crops. [fungicide]

Q-CIDE (eucalyptus extract) — Bio Prospect — A new bioinsecticide being developed for use on a number of crops to control whiteflies, mosquitoes, mites, termite, ants, slugs, snails, and other insects.

RAWHIDE (oxyfluorfen/glyphosate) — Dow AgroSciences — A new combination herbicide for noncrop weed control.

Other

BASF — The company has an agreement with the sunflower seed company, Seeds 2000, based in Breckenridge, MN, to develop imidazolinone-tolerant Clearfield sunflower varieties for the U.S. market. The varieties will be resistant to the herbicide Beyond (imazamox).

BAYER — With the acquisition of Aventis, the company will be known as Bayer Crop Science and consist of three business groups: Crop Protection, Bio Science, and Environmental Science. The last is divided into two business units: Professional Products and Consumer Products. The home office of the Environmental Science group will be in Montvale, New Jersey. The FTC has approved the acquisition; however, Bayer must divest itself of Fipronil insecticide in the agricultural market; the insecticide Acetamiprid in North America and Europe; its wheat herbicide, Everest (flucarbazone-sodium); and its cotton defoliant, Folex.

COMPTON/UNIROYAL — The company has sold its agricultural surfactant business (mostly sold under the Witco name) to Akzo Nobel Surface Chemistry, a Dutch company.

DOW/DUPONT — The companies will jointly market seed corn varieties with the B.t. gene under the Herculex label. The varieties will be marketed by Dow's Mycogen division and DuPont's Pioneer Seed division.

FARM LAND INDUSTRIES — This large, cooperative-distribution company has filed for bankruptcy.

NISSAN CHEMICAL — The company has acquired the rights to the herbicide business of Monsanto in Japan, which includes Roundup.

VECTOBAC (Bti) — Valent — Added to their label the control of nuisance flies in sewage-treatment facilities.

VOPAK — The company will rename its chemical distribution business to Univar.

WOLMANIT CX-10 (Cu-HDO) — BASF — Proposed to EPA to register this new active ingredient to use as a wood preservative against wood-destroying fungi and insects. The comment period expired 8-9-02. (FR, vol. 67, 7-10-02) [Michelle Wiesbrook, unless otherwise noted, adapted from Agricultural Chemical News, July and August 2002.]