Pesticide Storage and Security

Proper storage is important in keeping pesticides in good condition for use next year, as well as for keeping children and unauthorized people from tampering with these products. Pesticides should not be exposed to temperatures over 110°F, or breakdown and loss of effectiveness can occur. Also, check the pesticide label to see if you should guard against freezing temperatures. Store your herbicides separately from insecticides, fungicides, and other pesticides to avoid their contamination from herbicide fumes.

Pesticides should be kept locked up except when they are being used. Even when you remove a container of pesticide for use, you should keep the storage area locked while mixing and loading the sprayer, spreader, or other application equipment. Even if the storage area is in sight of the mixing and loading area, you may be called away to the phone or to assist someone else. Just a few minutes’ absence can be enough for a child or another person to find the storage area and become poisoned. Given today's concern about terrorism, consider that an unauthorized person entering the area may be more than a curious passerby. Sprayers, spreaders, and other pesticide-application equipment should also be kept locked up and secured to protect it from tampering and accidents. Be especially watchful and suspicious of unauthorized people in these areas.

In addition to being kept locked, the pesticide storage area should be plainly labeled as a pesticide storage area. A sign stating “Danger—Pesticides—Keep Out” or similar information should be appropriate. If you have Hispanic employees who do not read English, then the warning should also be in Spanish. A list of stored pesticides should be kept in your office and with the local fire department. There should also be a map or other information indicating which particular building and part of the building contain pesticides. This information can be very useful to the fire department for the protection of firefighters, as well as for avoiding environmental contamination from pesticide being carried away with water used to fight the fire.
Near the pesticide storage area, there should be soap and water for washing pesticide off your hands or other skin areas. Maintain an eyewash station, or at least have a faucet or hose for splashes into the eye. The first aid for eye exposure by many pesticides is to wash the eyeball with running water for at least 15 minutes.

Have a fire extinguisher handy because many pesticides are flammable. An absorbent material should be available for any liquid pesticide spills. This may be sawdust, kitty litter, oil dry, or specialized absorbent pads or "snakes" to surround and contain spills. Have a broom, dustpan, and trash can to pick up and store any dry spills or absorbed liquid spills until they can be disposed of properly. Pesticide labels have a telephone number to contact the pesticide company on the proper method to dispose of spilled pesticide. Local emergency personnel such as fire and police departments, as well as the Illinois Environmental Protection Agency, can also provide assistance.

Use the following checklist to improve the safety and security of your facility and pesticide storage area:

- For safety reasons, label your pesticide storage building with a sign stating "Danger—Pesticides—Keep Out," and post a list of emergency contacts at the main entrance to the storage area. Include the names, addresses, and phone numbers of at least two key employees, and the phone numbers for the police and the fire departments. In addition, "Emergency: Dial 911" (if applicable in your area) and the Illinois Poison Center (800-222-1222) should also be listed.

- Keep inventory records of pesticides up-to-date and easily accessible. A current inventory list and map clearly showing which building(s) or parts of buildings contain pesticides should be kept with the fire department in case there is a fire at your facility.

- Have a complete label and Material Safety Data Sheet (MSDS) for every product on the premises.

- Ensure pesticide storage areas are locked and secure when unattended, and strictly limit access to storage areas by limiting and tracking who has keys.

- Storage areas should be well lighted and sturdy so any attempt to force entry requires a substantial effort that likely would be noticed and reported. To enhance security, provide adequate outside lighting and consider using a surveillance system or security service.

- Block ramps and driveways at night and disable forklifts and other equipment that could be used during a theft. Secure application equipment to prevent sabotage, theft, and misuse. Inspect storage areas and equipment regularly.

- Be alert to strangers that snoop around the facility asking unusual questions and also to purchasers who—seem unfamiliar with details of using a pesticide (casually ask them a few pest or pesticide-use questions), act nervous, seem uneasy or vague, and avoid eye contact;

- Demand immediate possession of purchased material rather than future delivery;

- Ask for material in smaller, individual containers rather than in bulk;

- Insist on paying with cash instead of using credit or a check.

- In addition to your regular sales records (only licensed applicators may purchase restricted-use pesticides, and the dealer is required to keep records), keep a log of suspicious persons or activities by writing down the date, suspicious activity, a physical description of the person, license plate number, and vehicle description. In the event of a theft or any signs of tampering or attempts to force entry, contact the police and provide them with a copy of your log book.

- Be proactive and discuss pesticide safety, storage, and security issues with your employees.

For more information about accident prevention, chemical security, and facility design, see “Chemical Accident Prevention: Site Security (EPA, Feb 2000),” available online at http://www.epa.gov/swerecppy/pubs/secale.pdf. This 8-page publication also provides a valuable list of organizations, Web sites, and books addressing these issues in more depth. (Phil Nixon and Bruce Paulsrud)

Pesticide Reregistration—Keeping Your Eyes Peeled

You’ve likely heard or read about the 1996 Food Quality Protection Act (FQPA)—that it is responsible for significant pesticide label changes and even the virtual disappearance of some key active ingredients. If so, you have likely wondered when this tolerance reassessment and reregistration process will be finished. The short answer is that this is a never-ending process because there will always be changes in active ingredients and use patterns, and in the science of risk assessment itself.

If you don’t grow edible plants, you may be wondering what “tolerance reassessment,” a residue/food safety issue, has to do with your ability to grow or maintain ornamental plants. The short answer is that during the reregistration process the EPA must now consider all of the exposure ("aggregate risk") to a particular pesticide or group of pesticides that a person may experience, not just those present in food.
The process...

The EPA is reviewing older pesticides (those initially registered before November 1984) under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to ensure that they meet current scientific and regulatory standards. This process, called reregistration, considers the human health and ecological effects of pesticides and results in actions to reduce risks that are of concern. EPA also is reassessing tolerances (pesticide-residue limits in food) to ensure that they meet the safety standard established by the FQPA. By 2006, EPA must review the safety of all existing tolerances (maximum residue limits) that were in effect as of August 1996. Tolerance reassessment is being accomplished through the pesticide-reregistration program, by review of all existing uses of a pesticide when a new use is proposed and by revoking tolerances for pesticide uses that have been canceled.

EPA begins the reregistration process for a particular active ingredient by publishing a preliminary risk assessment and announcing a 60-day public comment period. Depending on the comments received and the accuracy of the preliminary risk assessment, a revised risk assessment and another 60-day comment period may be announced. The last phase of the reregistration is issuance of a Reregistration Eligibility Decision (RED; there are three variations) and notice of a final 60-day comment period. Alternatively, the registrant(s) may voluntarily cancel the product or certain uses, or otherwise reach an agreement with EPA. If so, the cancellation(s) or agreement is published and the public is allowed further comment.

The risk-assessment document is comprehensive and may be several hundred pages in length. Summary sections such as “What registrants need to do” or “Labeling Requirements for End-use Products” are important as they indicate what changes EPA proposes to mitigate (reduce) overall risk. A list of commonly used risk-mitigation strategies follows.

Registrant(s) and other interested parties are encouraged to participate during the comment periods. In general, early stage comments should focus on (1) improving or providing additional data to refine further the risk assessments (such as percent-crop-treated information or submission of residue data from food-processing studies), (2) evaluating the risk-assessment methodologies and assumptions used, and (3) submitting risk-management proposals or otherwise commenting on risk management. Late-stage comments might include any additional use or usage data and additional suggestions for alternative risk-management strategies. Also, comments should clearly explain and document, if possible, any anticipated burdens (such as cost, no viable alternatives, resistance risk issues) as a result of the proposed label change(s) or cancellation(s).

Common risk-mitigation strategies

• Voluntary cancellation
• Some uses not eligible/not yet eligible
• Limit amount, frequency, or timing of applications
• Other application restrictions
• “Restricted Use Pesticide” classification
• Personal Protective Equipment (PPE)
• Restricted Entry Intervals (REIs)
• User safety requirements and recommendations
• Improved use directions and precautions
• Special/tamper-resistant packaging
• Engineering/production controls
• Ground/surface water safeguards
• Spray-drift labeling
• Ecological safeguards
• Special programs to better protect young children.

If you wish to participate in the process or simply monitor the situation, a good place to start is the EPA Office of Pesticide Programs’ Web site, http://www.epa.gov/pesticides. Specifically, watch the “Open Comment Periods” section of the Web page. If you are interested in a particular active ingredient, I suggest that you visit the Pesticide Reregistration Status Web site, http://www.epa.gov/pesticides/reregistration/status.htm.

(Bruce Paulsrud)

The Illinois Pesticide Review
Is Changing—Are You?

As we all know, it’s an electronic world out there. Times are changing, and we must change as well. The Illinois Pesticide Review has been available online for several years, and we will continue that service. If you are a current subscriber, your subscription will be fulfilled (until it runs out). After the current subscription period, your IPR issues will then be available free of charge at http://www.pesticidesafety.uiuc.edu/newsletter/newsletter.html.

Each new issue will be offered in PDF format, which is nice for printing and taking with you to read away from your desk. While you are visiting our site, you can sign up for free, automatic e-mail notification when each new issue is posted to the Web (one brief message every 2 months). Many thanks go out to our paper subscribers! We truly hope you’ll make this change with us.

(Michelle Wiesbrook and Patty Bingaman)
Presentation Tips: Microsoft PowerPoint

You are giving a presentation, and you want to go back to a previous slide. Going forward is easy-just left click your mouse. But when you right click to reverse, an annoying little pop-up box appears. You can get to your slide this way, but it takes a few extra steps and can be frustrating.

There is an easier way. Adjust your settings so that right click means reverse. Here's how. For Microsoft PowerPoint 2000 (PC version), go to the toolbar and click “Tools,” then “Options,” then select the “View” tab. Under slide show, click the box next to the “Pop up on right mouse click” statement to remove the check mark. It's just that easy, and you'll have no more presentation frustrations (with reversing at least).

(Bruce Paulsrud and Michelle Wiesbrook)

Pesticide Applicator Training (PAT) Schedules Set

University of Illinois Extension and the Illinois Department of Agriculture released both the commercial and private pesticide applicator training (PAT) schedules during the first week of November. All commercial, commercial-not-for-hire, and public operators and applicators should receive a renewal (one-year license) or retest-notification letter and training clinic schedule from the Illinois Department of Agriculture (IDOA). In addition, all private applicators up for retest (3-year license) should receive a retest letter from IDOA. In each case, exams are valid for 3 years.

This season, there are 25 commercial clinics and nearly 100 private clinics statewide. Both clinic schedules (and much more) can be viewed at the University of Illinois Extension Pesticide Safety Education Website at http://www.pesticidesafety.uiuc.edu. Private applicators, please contact your local University of Illinois Extension office to register for a clinic and to order study materials. All other operators and applicators should call the University of Illinois PAT Program to register for a clinic and to order study materials, (800)644-2123 or (217)244-2123.

If you have never held a license or if you allowed your license to lapse, simply contact the appropriate office and register for a training and testing clinic. If you have questions about licensing, contact the Illinois Department of Agriculture at (800)641-3934.

2001-2002 Commercial PAT Clinics

Dec. 3 and 4, Peoria (GS, FC, D&R)
Dec. 5 and 6, Urbana (GS, FC, S, GF)
Dec. 17 and 18, Springfield (GS, FC, GF, S, MOS)
Dec. 19 and 20, Mt. Vernon (GS, FC, S, GF, D&R)
Jan. 3 and 4, Rockford (GS, T, O, ROW, MOS)
Jan. 7, Urbana (GS, D&R)
Jan. 15 and 16, Mt. Vernon (GS, T, O, MOS, ROW)
Jan. 17 and 18, Peoria (GS, T, O, AQ)
Jan. 23 and 24, Collinsville (GS, T, O, ROW, AQ, MOS)
Jan. 28 and 29, Springfield (GS, T, O, ROW)
Jan. 31 and Feb 1, Ottawa (GS, FC, S, GF)
Feb. 4 and 5, Urbana (GS, T, O, ROW)
Feb. 7 and 8, Jacksonville (GS, FC)
Feb. 14 and 15, M atteson (GS, T, O, ROW, MOS)
Feb. 26 and 27, Willowbrook (GS, T, O)
Feb. 28, DeKalb (GS only)
Mar. 5 and 6, Mundelein (GS, T, O)
Mar. 12, Mt. Vernon (Test only)
Mar. 13, Collinsville (Test only)
Mar. 18, Peoria (Test only)
Mar. 19 and 20, Willowbrook (GS, T, O, ROW, AQ)
Mar. 21, Galesburg (Test only)
Mar. 25 and 26, Moline (GS, T, O, ROW)
Apr. 3 and 4, Willowbrook (GS, T, O, ROW, MOS)
Apr. 9, Crystal Lake (GS only)
Apr. 10 and 11, Streamwood (GS, T, O, ROW)
Apr. 16 and 17, Chicago (GS, T, O, ROW, PM)
Apr. 23 and 24, Collinsville (GS, MOS, ROW)
May 7 and 8, Springfield (GS, MOS)

Training codes: AQ = Aquatic; D & R = Demonstration and Research; FC = Field Crops; GF = Grain Facility; GS = General Standards; MOS = Mosquito; O = Ornamental; PM = Plant Management; ROW = Rights-of-Way; S = Seed Treatment; T = Turf.

(Michelle Wiesbrook and Bruce E. Paulsrud)
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

ATRAZINE—Syngenta—EPA has proposed to revoke residue tolerances on range grass and orchard grass. The comment period expired 10-1-01. (FR, vol. 66, 8-1-01) [herbicide]

STRATOS (dicamba/atrazine)—Gharda—A new formulation for use on corn, grain sorghum, and fallow systems. [herbicide]

Fruit/Vegetable

BLOCKADE (adibensol-S-methyl)—Syngenta—This new product is a plant-activator that works to activate a plant's natural defense system to counteract diseases. It is registered to prevent downy mildew on lettuce and spinach, and white rust on spinach.

LYSO PE (LPE)—Nutra Pack Inc.—EPA established temporary exemptions from residue-tolerance requirements on blueberries, cherries, and peppers on this growth regulator to be used to enhance ripening and shelf life. Expires 6-1-03. (FR, vol. 66, 8-1-01)

MESSENGER (harpin protein)—Eden Bio Sciences—Added to their label the control of Botrytis bunch rot and powdery mildew on grapes and the control of bacterial speck and leaf spot on fruiting vegetables.

MICROTHIO (sulfur)—Cereagri—Added to their label the control of leaf spot and powdery mildew on peas.

OMEGA (fluazinam)—Syngenta—Received EPA registration to control white mold and late blight on potatoes. Apply when disease appears and repeat at 10- to 14-day intervals.

PANCHO (cyfluconamid)—Nippon Soda—A new fungicide being developed for use on fruit trees and vegetables.

PHOSPHAM IDON—Makhteshim-Agan—EPA has revoked residue tolerances on apples, effective 12-31-02. The comment period expired 10-1-01. (FR, vol. 66, 8-1-01) [insecticide]

SWITCH (prodinini/fludioxonil)—Syngenta—This product received EPA registration for use on strawberries and onions to control Botrytis. It also controls alternaria purple blotch on onions.

Turf/Ornamental

ASPIRE (Candida oleophia)—Ecogen—As a result of the IR-4 Project, they can now add to their label the use on 18 new ornamental species. [fungicide]

AZATIN (neem oil)—Cerces—As a result of the IR-4 Project, the producers can now add to their label the use on roses. [fungicide]

BARRICADE (prodiamine)—Syngenta—As a result of the IR-4 Project, they can now add to their label the use on seven new ornamental species. [herbicide]

BAYLETON (triadimefon)—Bayer—As a result of the IR-4 Project, they can now add to their label the use on begonias. [fungicide]

BORDEAUX Mixture—As a result of the IR-4 Project, the producers can now add to their label the use on 11 new ornamental plants. [fungicide]

BOURBON MIXTURE—As a result of the IR-4 Project, the producers can now add to their label the use on 11 new ornamental plants. [fungicide]

BOTTRAN (DCNA)—Gowan—As a result of the IR-4 Project, they can now add to their label the use on Douglas fir and redwoods. [fungicide]

CITATION (cypromazine)—Syngenta—As a result of the IR-4 Project, they can now add to their label the use on carnations and geraniums. [insecticide]

CLOSURE 75WP (bendiocarb)—Scotts/Aventis—This product, which is used on ornamentals, will be discontinued, effective 12-31-01. [insecticide]

DIMENSION (dithiopyr)—Dow AgroSciences—As a result of the IR-4 Project, they can now add to their label the use on 12 additional ornamental plants. [herbicide]

EAGLE (myclobutanil)—Dow AgroSciences—As a result of the IR-4 Project, they can now add to their label the use on ornamental bee balm. [fungicide]

ESTEEM (pyriproxyfen)—Valent—As a result of the IR-4 Project, they can now add to their label the use on chrysanthemum, coleus, ficus, pothos, and yew. [insecticide]

FLINT (trifloxystrobin)—Bayer—As a result of the IR-4 Project, they can now add to their label the use on bottlebrush. [fungicide]

FORCE (tefluthrin)—Syngenta—As a result of the IR-4 Project, they can now add to their label the use on flowering quince. [fungicide]

GOAL (oxilfofen)—Dow AgroSciences—As a result of the IR-4 Project, they can now add to their label the use on 11 new ornamental species. [herbicide]

GRAVEL (zoxamide/mancozeb)—Dow AgroSciences—As a result of the IR-4 Project, they can now add to their label the use on 11 new ornamental plants. [fungicide]

HERITAGE (azoxystrobin)—Syngenta—As a result of the IR-4 Project, they can now add to their label the use on Douglas fir trees. [fungicide]
As a result of the IR-4 Project, they can now add to their label the use on nine new ornamental plant species. [fungicide]

KALIGREEN/ARMICARB (potassium bicarbonate)-Church & Dwight/Toagosei-As a result of the IR-4 Project, they can now add to their label the use on nine new ornamental plant species. [fungicide]

KOCIDE (copper hydroxide)-Griffin-As a result of the IR-4 Project, they can now add to their label the use on ornamentals. [fungicide]

MEDALLION (fludioxonil)-Syngenta-Received a new label to control various diseases on more than 40 container-grown and landscape plants. It can be used in interiorscapes, field nurseries, forest nurseries, residential and commercial landscapes, and greenhouses and other enclosed structures. [fungicide]

ORNAMENTAL HERBICIDE II (oxyfluorfen/pendimethalin)-Scotts-As a result of the IR-4 Project, they can now add to their label the use on eight new ornamental species. [herbicide]

ORTHENE (acephate)-Valent-As a result of the IR-4 Project, they can now add to their label the use on English daisy. [insecticide]

Ovation (dofentazine)-Scotts-As a result of the IR-4 Project, they can now add to their label the use on ageratum, juniper, marigold, calendula, cyclamen, roses, and snapdragons. [insecticide]

PENDULUM (pendimethalin)-BASF-As a result of the IR-4 Project, they can now add to their label the use on 37 new ornamental species. [herbicide]

PERETHRIN-As a result of the IR-4 Project, the producers can now add to their label the uses on African violets, azaleas, and buttercups. [insecticide]

PHYTON 27 (copper sulfate pentahydrate)-Source Technology-As a result of the IR-4 Project, they can now add to their label the use on eight new ornamental plants. [fungicide]

PYLON (chlorfenapyr)-BASF-The company has named Olympic Horticultural Products as the exclusive U.S. marketer of this product on ornamentals. As a result of the IR-4 Project, they can now add to their label the use on ornamentals, roses, and impatiens. [fungicide]

RONSTAR (oxadiazon)-Aventis-EPA proposed to revoke all residue tolerances for this product. The comment period expired 10-1-01. As a result of the IR-4 Project, they can now add to their label the use on gazania. (FR, vol. 66, 8-1-01) [herbicide]

ROUT (oxyfluorfen/oryzalin)-Scotts-As a result of the IR-4 Project, they can now add to their label the use on rhododendrons. [herbicide]

SAN MITE (pyridaben)-BASF-As a result of the IR-4 Project, they can now add to their label the use on iris, cardinal flower, Indian pink, potensta, suerpe, and euonymus. [insecticide]

STATURE (dimethomorph/mancozeb)-SePro-This new product is being marketed on ornamental crops grown in commercial greenhouses and shadehouses, to control downy mildew and various other foliar diseases.

SURFLAN (oryzalin)-Dow AgroSciences-As a result of the IR-4 Project, they can now add to their label an additional 21 ornamental plants. [fungicide]

Structural

ECLIPSE (hydramethylnon)-Zocon-A new bait formulation used to control ants. [fungicide]

Many

ANCHOR (oxadixyl)-Gustafson-EPA received a request by the manufacturer to cancel voluntarily the registration for this product. Unless withdrawn, this change will be effective 2-22-02. (FR, vol. 66, 8-22-01) [fungicide]

BLENATE (benomyl)-DuPont-At the request of the manufacturer, EPA has canceled the registration for this product, effective 8-8-01. (FR, vol. 66, 8-8-01) [fungicide]

BOTANIGARD (Beauveria bassiana)-Emerald Bio Agriculture-The reentry period for this bioinsecticide is now 4 hours.

DIAZINON-Syngenta-EPA has revoked residue tolerances on beans, bean forage and hay, birdfoot trefoil and its hay, boysenberries, daw berries, grass hay, peanuts, peanut forage and hay, pecans, pineapple forage, soybeans and their forage, and sugarcane, effective 10-24-01. Objections must have been received by 9-24-01. (FR, vol. 66, 7-26-01) [insecticide]

DI-SYSTON (disulfoton)-Bayer-The company has requested the cancellation of uses in greenhouses, on nonbearing fruit trees, and on strawberries and bermudagrass seed crops, effective 10-22-01. [insecticide]

MAXIM XL (fludioxonil/mefenoxam)-Syngenta-Added to their label the control of Sclerotinia and Pythium.

MORESTAN (oxythioquinox)-Bayer-EPA has revoked residue tolerances on this product, effective 8-1-02. The comment period expired 10-1-01. (FR, vol. 66, 8-1-01) [insecticide]

ORACLE (dicamba)-Gharda-A new formulation for use on corn, sorghum, small grains, pasture, hay, rangeland, fallow, sugarcane, asparagus, turf, grass seed crops, and general noncrop weed control. [herbicide]

QUADRIS (azoxystrobin)-Syngenta-Added to their label the use on barley, bulb vegetables, carrots, and cotton. [fungicide]

RONILAN/CURALAN (vinclozolin)-BASF-Registration cancellations are as follows. Onions, raspberries, ornamentals and conifer seedlings—last day of sale, 8-30-01; last day of legal use, 10-15-01; last day of legal use 12-15-01. Kiwi and chicory—last day of sale, 12-31-02; last day of legal sale by distribution, 11-30-03; last day of legal use, 1-30-04. Lettuce and succulent beans—last day of sale, 7-15-05; last day of sale by distribution 9-
TEDION (tetradifon)—Uniroyal—EPA has proposed to revoke all residue tolerances for this product. The comment period expired 10-1-01. (FR, vol. 66, 8-1-01) [insecticide]

2,4-D (ethylhexyl ester formulation)—Nufarm/Universal Coops—At the manufacturer’s request, they will delete from their labels for this formulation the use on drainage ditch banks, lakes, ponds, other aquatic nonfood sites, and sugar-cane. Unless withdrawn, this change will be effective 2-4-02. (FR, vol. 66, 8-8-01) [herbicide]

CONCEP INC.—This pheromone company has been acquired by Suterra LLC, which is part of the Roll Int'l. business family. Suterra will operate out of Concep headquarters in Bend, OR.

ROYSTER CLARK—The company has signed a contract to purchase the assets of Agro Distributing South and Pro Source One. Agro Distributing South has 140 distribution farm centers in 12 states, and Pro Source One distributes products in the turf and ornamental markets.

SCOTTS—The company has reached an agreement with Eden Bio Sciences to evaluate their harpin fungicide technology in the professional turf and ornamental and homeowner markets to determine if there is a potential for use on a global basis. Scotts will have exclusive rights to these products in these markets.

(Michelle Wiesbrook, unless otherwise noted, adapted from Agricultural Chemical News, September and October 2001.)