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EPA's Endangered Species Protection Program (ESPP)

On several occasions in this newsletter, we have written about pesticides and endangered species protection. You might recall the titles: "ESA—Thriving, Threatened, or Extinct?" (March 2004) and "Coming to a Label Near You—New Language on Protecting Endangered Species" (November 2005). For the naysayers out there, let me tell you that EPA is indeed acting. In November 2006, I attended EPA's Endangered Species Protection Program Partners Workshop. The stated goal of the workshop was to "develop the necessary educational information to successfully implement the Endangered Species Protection Program in the real world, and to provide our Regional, State, and Tribal partners a solid foundation for implementation."

In addition to attending general information sessions, workshop attendees participated in three different breakout sessions designed to garner input and advice:

- *Section 18 Guidance:* This session was intended to clarify the "credible effort" that states must demonstrate when evaluating endangered species concerns within their Section 18 requests.
- *Communication and Training Materials:* This session was broad in scope, as participants were asked to develop and refine existing communication and training materials and documents that will aid both regional and state partners in communicating the ESPP to different audiences.
- *Bulletins Live! and Program Enforcement:* The online Endangered Species Protection Bulletin retrieval system was demonstrated in this session. In addition to exploring the Bulletins Live! system, participants were asked to brainstorm on enforcement issues and guidance, as well as develop ideas for "version 2.0" of Bulletins Live!

In all, there were 53 workshop participants, most of whom were department of agriculture staff from various states. Following are my notes and observations from the workshop.



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What

- The Endangered Species Protection Program (ESPP) will address, to the degree possible, endangered species issues within the agency's existing processes of registration; reregistration; and, in the future, registration review. If geographically specific pesticide-use limitations are necessary, EPA will create an Endangered Species Protection Bulletin (Bulletin) containing enforceable use limitations for the pesticide. Bulletins will be referenced on the pesticide product label ("Directions for Use" section) and available on the Web at www.epa.gov/espp or by calling 1(800)447-3813. The existing "county bulletins" are not enforceable pesticide-use limitations. (*Source:* www.epa.gov/espp)
- The ESA statement will appear only on product labels that require it, as determined during registration review and in consultation with the "services" (the U.S. Fish and Wildlife Service and the Commerce Department's National Marine Fisheries Service). It is my understanding that EPA will be following the pesticide registration-review schedule at http://www.epa.gov/oppsrrd1/registration_review/schedule.htm. EPA will *not* require relabeling products that are already in the "channels of trade."
- **The process from the applicator's perspective:**
 1. If the pesticide product label has an endangered species statement, it will direct the applicator to EPA's ESPP Web site, www.epa.gov/espp.

Note: There *will* be a link on this Web page that gets you to the Bulletins Live! site (where you'll find the Bulletins). Bulletins Live! should be active within the next month.
 2. Click on your state and then select your county.
 3. Choose the month you plan to apply the pesticide. (You will have access to 6 months of bulletins; for example, if you check in January, you will see bulletins for January through June.

If you check in February, you will see February through July.)

The bulletin you choose to view and print will show the single month for which it is effective; using this bulletin for an application during an earlier or later month is illegal. For example, if you intend to make an application in late April, you would check, print, and comply with the use limitations in the April bulletin. If the application is delayed and takes place in early May, you are required to check and comply with the use limitations in the May bulletin.

4. Read the bulletin to determine which Pesticide Use Limitation Areas (PULAs) exist in the county where you plan to apply a pesticide. Colors and patterns are used to indicate areas where a protected species exists and is in need of protection. If you are applying a pesticide within these areas, determine what species are in need of protection and proceed to the next step.

Note: To avoid confusion with restricted-use pesticides, EPA does not want people referring to these Pesticide Use Limitation Areas as "restrictions."

5. Look at the Pesticide Active Ingredients list in the bulletin and locate your active ingredient(s).

Note: Only active ingredient names will be used on the bulletins. Despite strong encouragement from many persons at the workshop, EPA has no plans to provide trade names or even link to such cross-reference tables or Web sites. This is due, in part, to the rapidly changing product/trade names/"me too" list.

6. Find the Pesticide Limitation Codes that correspond to your active ingredient(s) and species.
7. Look at the Codes and Limitations list in the bulletin and locate your code and apply the pesticide according to the code limitation. If multiple PULA Codes apply to your pesticide application, you must follow the most restrictive limitation.

Note: Example limitations may include setbacks (general or ground-/air-specific), rate limitations, prohibition of direct application to water, etc.

8. Print the bulletin for your records (EPA can only recommend printing; they cannot require it).
- Map and bulletin creation:
 - o EPA Science Division will create the bulletin.
 - o States will be sent a hard copy of the bulletin for review.
 - o After the normal public comment period and any necessary changes, EPA will publish the bulletin.
 - o Real-time creation via relational database-approved changes are immediately available.

When

- The ESPP website is expected to be launched in January 2007. When launched, *every* county will have a bulletin (though they may not have any PULAs).
 - o Due to some legal reasons (which I cannot explain), the EPA cannot delete the maps that are on the ESPP Web site today. Instead, these old maps will be accessible only through a frequently asked question that explains they are not the enforceable Endangered Species Protection Bulletins and the limitations noted within them are not enforceable use limitations.
- ESA labels and PULAs will start to appear in 2007, but there will be few to begin with.
- For those seeking a Section 18 label, EPA says a "credible effort" is required to identify and address endangered species risks. A draft-guidance document in this regard is being prepared by EPA.
 - o Check which taxa are in your state and obtain toxicity data from EPA's Reregistration Eligibility Decision (RED) documents or fact sheets. (Many can be found at <http://cfpub.epa.gov/oppref/rereg/status.cfm?show=rereg>).

- o Check with regional F&WS office (or eventually EPA's ESA bulletins) for species distributions.

Enforcement and education

- Once a label has the bulletin referenced, it is enforceable, and states will be expected to enforce the bulletin provisions under the misuse provisions of FIFRA. However, between now and 2008, EPA's major emphasis for SLAs (state lead agencies) will be to conduct and facilitate outreach and education.
- EPA recently sent grant guidance to SLAs. This document had formatting errors, so EPA will likely reissue it with correct formatting. SLAs will also have another chance to comment on this document.
- EPA will compile ESPP Q&A documents online (similar to what was done with the Worker Protection Standard).
- For compliance inspection purposes, SLAs will have access to "expired" bulletins, but the public will not. In addition, "revision 2" of Bulletins Live! (release date unknown) will allow the SLA to see the PULAs for a whole state and search by active ingredient.
- What is University of Illinois Extension doing *right now* in terms of education?
 - o As much as we can do, given the fact that, for the whole country, there are no labels with ESA language or enforceable bulletins online at this time.
 - o We are showing the expected label language during Pesticide Safety Education Program training and briefly explaining what steps will be required for compliance.
 - o Educational materials (slides, downloadable brochures, etc.) are expected to be available from EPA in 2007. Educators and others will be able to adapt educational materials as needed for their state.

For more information

For questions on the field implementation aspects of the ESPP, contact Mary Powell (powell.mary@epa.gov) or call (703)305-7384.

For questions about technical aspects of the ESPP, contact Arty Williams (williams.arty@epa.gov) or call (703) 305-7695.

To learn more about endangered and threatened species or their designated critical habitat, visit the U.S. Fish and Wildlife Service's Endangered Species Program home page at <http://endangered.fws.gov>. (Bruce E. Paulsrud)

Save the Queen! (Bee)

Protecting nontarget organisms during a pesticide application is always important. It can be especially difficult, however, if you don't know exactly what or where those nontarget organisms are. Such can be the case with bees. Although most applicators are aware that protecting bees from pesticides is important, many don't know exactly how to go about determining whether or not there is a potential for bees to be near their application site.

Bees, whether they are honey bees or wild bees, are beneficial insects. One of their most important roles is pollinating plants, including field crops, fruit, vegetables, and other crops. Applying a pesticide directly to blooming plants or allowing a pesticide to drift onto blooming plants can be fatal to bees. To protect their important role in agricultural production, it is critical to prevent inadvertent injury to bees from pesticides. While the following guidelines can help protect bees, remember to always read the label for more specific information on bee safety. The label tells you whether or not the pesticide is toxic to bees. If possible, use a pesticide with low toxicity to bees.

Insecticides are generally more toxic to bees than other types of pesticides. If bees are near the application site, it is especially important to select a pesticide with low toxicity to bees if possible. The type of formulation also affects a pesticide's toxicity to bees. In general, granules and or pellets are safer to bees than sprays. Emulsifiable concentrates are less toxic to bees than wettable powders. Microencapsulated formulations of insecticides that are toxic to bees can be especially hazardous because the bees can carry the capsules back to their hive and wipe out the entire colony.

If you have to use a pesticide that is toxic to bees for an application near bees, try to make the application during a time when bees are least active. This can greatly reduce the risk of bee deaths. Before dawn and after dusk are times when bee activity is lower, so these would be safer times to make an application. Because bees do not fly actively at temperatures lower than 55°F, cooler weather is also a safer time to make applications when bee safety is a concern.

If using a less-toxic pesticide or spraying when bees are not active is not possible, you will need to notify beekeepers about the upcoming application so they can take the appropriate measures to protect their bees. This could involve moving the colony or protecting by other means. You need to notify beekeepers at least 48 hours before the application is to be made. All beekeepers within 3 miles of the application site should be notified because bees can fly up to 3 miles.

All three options discussed above—using a product less toxic to bees when spraying near them, spraying when bees are less active, or notifying a beekeeper about the coming application—require you to be aware of beekeepers near the application site. So how do you find out about nearby beekeepers? The Illinois Bees and Apiaries Act requires beekeepers to register their hives with the Illinois Department of Agriculture's Illinois Bees

and Apiaries Program, which maintains a list of all beekeepers and the locations for all colonies in Illinois. To register their colonies with the Illinois Department of Agriculture, beekeepers need only to submit a one-page form, which is available online. There is no charge for registration, and a registration certificate is provided as proof of the registration. You can learn more about the Illinois Bees and apiaries Act and Program by visiting <http://www.agr.state.il.us/programs/bees/index.html>.

New beekeepers are required to register within 10 days of acquiring bees, and beekeepers moving to Illinois have a 10-day period in which to register after arriving in the state. In addition to this initial registration, Illinois beekeepers are required every November to renew their registration. This ensures that an accurate and up-to-date list of bee colonies within Illinois is maintained. Required information for registration includes the beekeeper's name, address, county of residence, and phone number. For each apiary maintained by the beekeeper, the county, township, section number, address (or directions to), and number of colonies at the apiary must be provided. In addition, the name of the landowner or person on the premise where the apiary is located must also be provided. Apiaries registered with the Illinois Department of Agriculture may be identified by weatherproof lettering at least a half an inch in height on the front of a hive.

Pesticide applicators can use this list of bee colonies in Illinois to determine if any hives are near the intended application site. There are two ways to access the list. The first is to phone the Illinois Bees and Apiaries Program at (217)782-6297. Another option is to contact your local University of Illinois Extension office. Each Extension office annually receives the list of beehives. To find the Extension office nearest you, visit <http://web.extension.uiuc.edu/state/findoffice.html>. By checking for nearby bee apiaries before making a pesticide application, you can

help protect bees and the prominent role they play in Illinois Agriculture. (*Michelle Wiesbrook and Scott Bretthauer*)

Aquatic Permits

In the November 2006 issue of the *Illinois Pesticide Review*, we discussed the issue of National Pollutant Discharge Elimination System (NPDES) permits. In the last few years, it was unclear as to whether these were already or would become required for pesticide applications to aquatic areas. However, the final ruling was that a NPDES permit is not required when applying a pesticide directly to water to control pests or when applying a pesticide to control pests present over water. That's the short version and by no means a legal interpretation. For more information, you should check out the article. EPA also has a fact sheet at <http://www.epa.gov/npdes/agriculture>.

There are a few other situations where an aquatic pest manager may be required to obtain some type of permit. Before making any pesticide application, it is important to inquire about any local pesticide-related ordinances that may be in effect. For example, your local lake-owners association may have its own rules concerning pest control. No matter where you are in Illinois, state-required permits may be required in the following situations:

- *Buying, selling, offering for sale, distributing or planting purple loosestrife.* Under the Illinois Exotic Weed Act, these actions are unlawful without a permit issued by Illinois Department of Natural Resources (IDNR). Be careful where and how you dispose of cut plants or plants with seeds! You don't want to help loosestrife spread!
- *Dredging to deepen shallow areas in ponds, lakes, etc.* For more information, contact the IDNR Office of Water Resources, Division of Water Resource Management, or check out their Web

site at <http://dnr.state.il.us/owr/resman/permitprogs.htm>. Minor maintenance dredging activities are covered under a statewide permit in order to reduce paperwork. According to this Web site, as long as the proposed work meets all the specified limits, the project is considered covered by the permit and therefore approved. One of the many specified limits is that "the affected length of the stream shall not, either singularly or cumulatively, exceed one thousand (1,000) feet." The permit also has restrictions on how the dredged or spoil material shall be disposed of. Six disposal options are listed in the permit. If the project scope exceeds the criteria needed to meet the statewide permit, contact IDNR for further directions.

- *Lining a shoreline with rocks or other types of riprap to prevent both erosion and establishment of aquatic plants.* Landscaping barrier material placed prior to distributing the riprap prolongs the benefit of the riprap significantly. Permits may be required in some situations or areas; for more information, visit the IDNR Division of Water Resource Management Permit Programs Web site at <http://dnr.state.il.us/owr/resman/permitprogs.htm> or the U.S. Army Corps of Engineers Regulatory Program Web site at <http://www.mvs.usace.army.mil/permits/permitap.htm#forms>. A statewide permit exists for the placement of protection materials on an eroded bank of public waters. The IDNR Web site provides specific details about the types of materials that may and may not be used. The materials need to be properly sized and anchored. There are restrictions on how and where the materials can be placed. For vegetation managers especially, it is interesting to note that the permit states that "disturbance of vegetation shall be kept to a minimum during construction to prevent erosion and sedimentation." It could be that your goal is to prevent vegetation! The permit goes on to read that similar construction activities specifically not mentioned

in the permit may also be allowed, but plans must first be submitted to IDNR for review and appropriate determination. Contact their Water Resource Management office for more information.

- *Stocking a body of water with grass carp for weed management.* This act must be done by a supplier with a permit from IDNR. For more information or assistance with stocking rates, contact the IDNR Division of Fisheries, in Springfield, (217)782-6302, or one of their regional offices.
- *Purchasing piscicides for fish population management.* A permit from the IDNR Division of Fisheries must be obtained. However, the law states that the piscicide application be made by an IDNR fisheries biologist.

Be sure to read and follow all label directions for further restrictions. If you haven't replaced that old *Aquatics (SP39-6) Illinois Pesticide Applicator Training* manual on your reference shelf, now is a good time to do so. Much of the above information can be found in the latest revision which was November 2005. (Michelle Wiesbrook)

Proper Disposal of Disposable PPE

So you've invested in a box of disposable gloves and perhaps a box of single-use coveralls. That's a wonderful investment in your safety while mixing, handling, and spraying pesticides. However, when the use is through, what are you to do? Can they just be disposed of in your regular trash?

According to the Illinois EPA, yes they can. Disposal of pesticide-contaminated PPE in the regular trash *is* legal, but the article(s) should be wrapped in a trash bag to help ensure that the garbage handler is not exposed to the pesticide. Furthermore, it is best to dispose of the items on a regular basis rather than stockpiling and disposing of large quantities.

I toured a pesticide manufacturer's facility last spring. Sitting on their counter in the mixing lab was a rack of plastic grocery bags intended for this very purpose. Pesticide-related trash was bagged and tied up immediately after use. What a great idea. A few plastic bags can easily be kept in your vehicle or sprayer. However, they will take up a little space, no matter how small you try to fold them. Plastic bags are also available for purchase in a small roll the size of a roll of film. You can find these in the baby section of your local retail outlet. Yes, the baby section. These are great for diaper changes on the go! The yellow ducky dispenser is optional but may make the dark blue bags easy to spot. (Michelle Wiesbrook)

The Pesticide Stewardship Alliance (TPSA) 7th Annual Working Conference in Reno, Nevada, February 25 to 28, 2007

All interested parties are invited to attend: Register now at <http://pep.wsu.edu/tpsa07>

What's the barometer reading on pesticide stewardship in the United States and the rest of the world? This question will be tackled from multiple perspectives during The Pesticide Stewardship Alliance (TPSA) 7th Annual Working Conference in Reno, Nevada, February 25 to 28, 2007. Join U.S. and international TPSA members in advancing dialogue that promotes stewardship.

Key conference themes include

- Collection and disposal of obsolete pesticides in Europe, Mexico, and the United States. What are the needs and what is the future of these programs?
- Recycling of pesticide containers and other agricultural plastics. Strategies for collecting and marketing the recyclables and disposing of the others.

- Reducing agrochemical movement in air and water. Status and implication of regulations. What's happening to mitigate spray drift?
- Reducing potentially harmful exposure to pesticides through improvements in packaging, transportation, storage, and containment.
- Pesticide poisoning. What's happening in the United States and why?
- New approaches to communicating about stewardship

The plenary session sets the stage by asking "How Is the Rest of the World Handling Collection and Disposal of Obsolete Pesticides?" John Vijgen, founding president of the International HCH and Pesticides Association based in Denmark, answers with an insider's view from a European perspective. Vijgen's presentation will feature the U.S. premier of videos and photos of pesticide cleanup and cleanup needs in Eastern Europe and the European Union.

Full conference program details—as well as registration information—are on the TPSA Web site: <http://tpsalliance.org/> (click on "conference"). All conference activities take place at the Silver Legacy Resort in Reno (<http://www.silverlegacy.com/>).

In brief, the conference begins with an opening reception Sunday evening, February 25, followed by two days filled with sessions, displays, and ample time for networking on Monday and Tuesday. The conference closes with an environmental stewardship tour of the Lake Tahoe–Reno area on Wednesday, February 28. Glenn Miller, from the University of Nevada at Reno, will show/tell about the critical environmental stewardship issues that have led the surrounding communities; the states of Nevada and California; and visitors to collaborate in protecting Lake Tahoe from the substantial development pressures that have led to degradation of water quality.

TPSA is a nonprofit organization that brings together technical experts, researchers, pesticide applicators, regulators, educators, crop protection industry, hazardous waste industry, ag plastic recyclers, the environmental and public health constituency, and others to promote and support improvement to pesticide stewardship in the United States and internationally.

The TPSA Conference is a great opportunity to network and learn across the typical divides among these groups and build bridges based on common interests. *(Michelle Wiesbrook)*

EPA To Phase Out Azinphos-methyl Insecticide

The U.S. Environmental Protection Agency (EPA) has issued its decision to phase out the remaining uses of the organophosphate insecticide azinphos-methyl over the next several years. EPA feels that this phaseout will encourage the transition to safer alternatives and reduce risks to farm workers, pesticide applicators, and aquatic ecosystems. Under the agreement,

- brussels sprouts and nursery stock uses will be phased out by September 30, 2007.
- almonds, pistachios, and walnuts uses will be phased out by October 30, 2009.
- apples, blueberries, cherries, parsley, and pears uses will be phased out by September 30, 2012.

All other uses of azinphos-methyl have been voluntarily canceled by the registrants. During the phaseout, additional use restrictions will help minimize risks. For example, reduced annual application rates will be phased in, buffers for water bodies will be increased, and buffers for

occupied dwellings will be added. The agency expects growers to successfully adapt and make the transition to available safer alternative pesticides, including acetamiprid, lambda-cyhalothrin, methoxyfenozide, novaluron, tebufenozide, thiacloprid, and thiamethoxam.

The registrants will develop training materials in both English and Spanish that are designed to educate workers regarding

- work practices that can reduce exposure to azinphos-methyl
- recognition of symptoms associated with cholinesterase inhibition
- how to seek medical attention in the event that workers experience poisoning symptoms.

These materials will include a description of how, and by whom, the training will be conducted.

To assist the transition to safer alternatives, growers, registrants, and other stakeholders will meet with EPA periodically during the phaseout to discuss alternatives to azinphos-methyl. This new EPA-USDA Azinphos-methyl Transition Strategy Workgroup will be part of the Pesticide Program Dialogue Committee. Additional information can be found at http://www.epa.gov/oppfead1/cb/csb_page/updates/2006/azinph.os-phaseout.htm. *(Adapted slightly by Phil Nixon from an EPA news release.)*

Protect Children from Pesticides

The U.S. Environmental Protection Agency (EPA) advises parents and caregivers to keep potentially harmful products, such as pesticides, locked up and in a high cabinet out of the reach of children.

U.S. poison control centers receive a call every 15 seconds about an accidental

poisoning. The National Safety Council records show that more than 50 percent of the 2 million poisoning incidents each year involve children under 6 years of age. Most are due to children swallowing common household items such as prescription and over-the-counter medications, vitamins, cosmetics, and personal care and cleaning products. Poisonings also involve houseplants, tobacco products, and alcohol.

To reduce the number of unintentional poisoning deaths and injuries, the U.S. Consumer Product Safety Commission recommends the following:

- Keep pesticides in their original containers; never transfer pesticides to other containers that a children may associate with food or drink.
- Never place rodent or insect baits where small children can get to them.
- Leave the original labels on the products.
- Read labels before use.
- Always purchase products with child-resistant safety packaging.
- Keep all household products and medicines locked up, out of sight, and out of reach of young children.

Poisonings can occur when adults are distracted for just a few moments by the telephone, the doorbell, or other household events. That's why locking up potential hazards is so important. Bathrooms and kitchens are the areas in the home most likely to have improperly stored hazards. Before applying pesticides or other household chemicals, remove children and their toys, as well as pets, from the area. Keep children and pets away until the pesticide has dried or as long as is recommended on the label.

This spring, EPA has distributed 23,000 posters featuring the phone number for the Poison Hotline, (800)222-1222, to poison centers, schools, clinics, hospitals, and health departments. *(Adapted by Phil Nixon from the North Dakota Pesticide Quarterly.)*

Protection from Pesticide Exposure to the Eyes

Although the following is based on requirements of the Worker Protection Standards (WPS), this information also pertains to a wide range of eye protection from pesticides.

The WPS requires the agricultural employer to assure that at least 1 pint of water is immediately available to each worker performing early entry activities for which the pesticide labeling requires protective eyewear. Similarly, the WPS requires the handler employer to assure that at least 1 pint of water is immediately available to each handler who is performing tasks for which the pesticide labeling requires protective eyewear. In both sections of the WPS addressing availability of eye-flush water, the agency requires that emergency eye-flush water be carried by the handler or early entry worker, be on the vehicle (or aircraft) that the handler or early entry worker is using, or be otherwise immediately accessible.

The WPS *How to Comply* manual states that emergency eye-flush water may be at the decontamination site if the decontamination site is immediately accessible. Because the WPS specifies that eyewash water must be carried by the handler or early entry worker, or must be on the vehicle or aircraft that the handler or early entry worker is using, the eyewash water must be close and accessible to the worker or handler at all times. In addition, because concentrations and causticity of agricultural chemicals vary so greatly (and therefore the duration of exposure necessary for ocular damage to occur is difficult to determine uniformly), emergency eyewash water must be available immediately. If the emergency eyewash water is not being carried by a person, it must be situated at such a distance that a person could get to it within very few seconds.

The following might be examples of “immediately available”:

- Running water, a commercial eye-flush dispenser, or decontamination water in a carboy. This should be located at a mix/load, storage, equipment-cleaning or -repairing, or other stationary handling (or early entry) site for handlers or early entry workers engaged in such activities at the site
- Running water or commercial eye-flush dispensers located at frequent intervals and easily accessed by the handlers/early entry workers in a bench-type nursery or greenhouse site
- Water meeting the WPS standard for decontamination water that is in a nurse tank or other supply tank on (or being dragged by) the vehicle a handler or early entry worker is operating

Examples of unacceptable locations in which to store emergency eye-flush water for immediate accessibility include

- water on a vehicle but in a locked compartment
- water for which difficult or time-consuming steps must be taken to access, such as having to uncouple or connect a nurse tank hose, having to unlock a compartment holding the eye-flush dispenser, or having to unlock a restroom
- water located across a stream or commercial road.

The eye-flush water can be in a single, large container suffice if the contents equal or exceed 1 pint per worker and is immediately accessible to each worker or handler who requires it. (*Adapted by Phil Nixon from the North Dakota Pesticide Quarterly.*)

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Michelle L. Wiesbrook, Extension Specialist, Pesticide Application Training and Horticulture

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