

2
TA265-6
C42
98/09



Texas Agricultural
Extension Service
The Texas A&M
University System

CHEMOGRAM

SEP 21 1998

September, 1998

Spray Drift Minimization

by Mary L. Ketchersid

Government Publications
Texas State Documents
Depository
Dallas Public Library

The first step in drift control is to read the pesticide label. Label directions insure safe and effective use of pesticides with minimal risk to the environment. Surveys indicate that many drift complaints involve application procedures known to be "off-label."

Two types of drift occur. *Vapor* drift is independent of the application; it is associated with the volatilization of herbicide molecules and their movement off-target. *Particle* drift is the off-target movement of spray particles formed during application. The amount of particle drift depends mainly on the number of small "driftable" particles produced by the nozzle.

Although drift cannot be eliminated completely, the use of proper equipment and application techniques can maintain drift deposits within acceptable limits. Minimize drift levels by:

- applying the coarsest droplet size spectrum that provides sufficient coverage and pest control.
- using the lowest nozzle height that provides uniform coverage.
- applying pesticides when wind speeds are low and consistent in direction.

Spray Drift Task Force (SDTF) Fact Sheets Enclosed

The SDTF, made up of 38 major agricultural chemical companies, was organized in 1990 to improve spray drift minimization. Four fact sheets about SDTF studies are now available and samples are enclosed with this newsletter. Extra copies are free; however, to receive more than 250 of each, include an explanation for the number requested. Send requests to SDTF c/o Andrew Hewitt, Stewart Agricultural Research Services, Inc., P.O. Box 509, Macon, MO 63552; fax 816-762-4295, or e-mail at <ahewitt@marktwain.net>.

Special Local Need Registrations and Emergency Exemptions

by Donna Hart, TDA

The Texas Department of Agriculture (TDA) Pesticide Registration Program evaluates requests for special local need registrations and emergency exemptions to allow

use of specific pesticides on sites not designated on product labels. TDA relies on information provided by Extension specialists and agents, such as identifying problem pests and threatened crops.

"Without the help of Extension agents, we would have trouble getting exemptions, meaning farmers wouldn't have the tools they need to produce a crop," said Mark Trostle, director of Pesticide Registration. "Once an exemption is granted, agents assist producers in knowing exactly when to use the product. Many exemptions pose restrictions that require a certain number of pests be present before the pesticide can be used."

Trostle reminds Extension agents to read the exemption notice and follow all directions in the notice as well as on the label. *Be sure to note the exemption's expiration date.* Producers can be fined if they misuse a product, and people who advise them to use a product improperly can be fined as well.

"Extension agents offer crucial advice to producers, and we appreciate all the help agents provide," Trostle said. "As we tell everyone, the first step to safe and effective pesticide use is following label directions. In the case of exemptions, the notice becomes part of the label." EPA allows TDA to declare several kinds of exemptions. A brief explanation of each follows.

Section 18 Emergency Exemptions

The department follows EPA criteria for granting emergency exemptions when insects or disease threaten a crop, and there is no registered pesticide to counter the emergency. First TDA conducts an economic analysis of crop budgets for the past five years and estimated crop loss if the pest is not controlled. TDA also provides data showing that the requested pesticide will do the job safely and effectively. This data often comes from tests conducted by TAMUS faculty or crop consultants.

TDA staff spend about three weeks putting together the information EPA requires. An EPA decision usually takes 50-90 working days. Then TDA must monitor pesticide use under emergency specific exemptions and file a report with EPA. Applications of pesticides under emergency specific exemptions may be made only by certified or licensed applicators, or by persons under the direct supervision of licensed applicators. *Applicators must have a copy of the exemption. The exemption notice becomes part of the labeling.*

Crisis Exemptions

TDA can grant a crisis exemption without EPA approval for up to 15 days. This exemption may be used in an extreme emergency when time is insufficient, from discovery of the emergency to when the pesticide is needed, to allow for authorization of a specific exemption. By applying for a specific exemption from EPA, the crisis exemption can remain in effect longer.

Special Local Needs

Texas Pesticide Law and Regulations provide that the department address the special local need for a pesticide. Before approving a request, TDA determines that a local need exists; that the applicant meets all federal requirements for registration of a pesticide; that the particular use of the pesticide has not been denied, suspended or canceled by the EPA; and that the product's efficacy data support the claims made for it in Texas.

Experimental Use Permits

Texas Pesticide Law and Regulations provide that the department address the experimental use of pesticides. An experimental use permit (EUP) must be issued and approved by EPA prior to requesting TDA approval.

Section 2(ee) Recommendations

Texas follows EPA criteria for Section 2(ee) Recommendations. Section 2(ee) allows a company to recommend use of a product that is labeled for use on a particular crop, animal or site in a manner not permitted by the labeling, as long as it is not prohibited on the label. Examples: using a smaller amount of the product, targeting a pest not cited on the label, applying by a different method, or mixing with another pesticide or fertilizer.

TDA must approve any written uses of 2(ee) recommendations. All printed recommendations must be distributed as "Product Information Bulletins," "Pesticide Fact Sheets," etc. and may not be identified as a label, labeling or a supplemental label. All Section 2(ee) recommendations must show an expiration date of December 31 of each calendar year. Companies may request a new 2(ee) annually. All sheets must state: "For use and distribution in the state of Texas only."

SAFETY: Apply It First

by Mary L. Ketchersid

This is a program sponsored by eight chemical companies that produce organophosphate and carbamate insecticides. You may request a "Safety: Apply It First" kit, which contains: five plastic bags for a change of clothing or contaminated clothing; and decals and signs for tractor cabs, spray booms, etc. Call 800-233-1909 or write

"Safety: Apply It First," P.O. Box 460753, St. Louis, MO 63146-7753. Brochures that include request cards for the kit also are available. A slide set by the same title may be ordered from the Extension Audio-Visual Library (SS 1387). The PAT chair at each District Extension Office also has one.

News about the Food Quality Protection Act

compiled by Kent Hall and Mary L. Ketchersid

The EPA has released preliminary risk assessments on nine active ingredients. Once released to the public, anyone can submit data on the products. EPA will refine the assessments based on all the information received. Seven more assessments are scheduled for release in September, and another 24 in the months to follow.

August list -- all organophosphates (OPs): Terbufos (Counter, Am Cy), Azinphos-methyl (Guthion, Bayer) (Sniper, UAP), Phorate (Thimet, Am Cy); (Phorate 20G, UAP), Ethion (Ethion 4 Miscible, FMC), Naled (Dibrom, Valent); (Legion, Valent), Bensulide (Prefar 4-E, Gowan), Fenamiphos (Nemacur, Bayer), Isofenfos (Nemacur-O, Bayer), Profenophos (Curacron, Novartis).

September list -- all OPs: Ethoprop (Mocap, Rhone Poulenc), Tribufos (Def 6, Bayer) (Folex 6-EC, Rhone Poulenc), Sulfotep (Bladafum, Bayer), Temephos (Abate, Am Cy), Dimethoate (Dimethoate, UAP, Helena) (Cygon, Am Cy), Cadusafos (Rugby, FMC); (Apache, FMC), Fenthion (Baycid, Bayer).

OP Facts

Some U.S. annual data about the organophosphate (OP) pesticides now under FQPA review:

- About 60 million lbs. are applied per year to 38 million acres of farmland: field corn — 19 million lbs.; cotton — 15 million lbs.; fruit, nuts and vegetables — 16 million lbs.
- OPs account for 50 percent of all acreage treated with insecticides.
- Roughly 17 million lbs. are used in homes and businesses and to control termites and mosquitos.
- Five products account for 60 percent of all uses: chlorpyrifos (Dursban/Lorsban), terbufos (Counter), profenofos (Curacron), tribufos (Folex/Def), and malathion.

FQPA E-mail Discussion Group

The National Pesticide Telecommunications Network at Oregon State University invites anyone interested in pesticide residues on food to join this forum. To join, send an e-mail to: <subscribe-fqpa@lists.ace.orst.edu>

FQPA Requires New Consumer Brochure

The EPA is drafting a consumer brochure to increase public awareness about pesticides and food. The brochure, required by the FQPA, will be distributed in grocery stores and updated annually. EPA has taken input from the public, the Food and Drug Administration, and the Department of Agriculture. Both the crop protection industry and environmental groups have made strong negative comments. Controversy about the brochure has been reported in depth in *The Washington Post* and *The Wall Street Journal*.

Reminder: Comply with Right-to-Know and Worker Protection Standard Laws

by Mary L. Ketchersid

All agricultural employers should remember to train workers in accordance with the *Right-to-Know* and *Worker Protection Standard* laws. For more on these training rules, check the web sites listed on page 4.

The Texas Agricultural Hazard Communication law, also known as the "Right-to-Know" (RTK) law, was enacted in 1988 to help protect people in agricultural areas from the possible dangers of pesticide exposure.

The federal Worker Protection Standard (WPS) covers both employees who handle (mix, load, apply, etc.) pesticides and workers in areas treated with pesticides. In 1992, the EPA issued regulations governing the protection of employees on farms, forests, nurseries and greenhouses from occupational exposures to agricultural pesticides. WPS has been amended a number of times since passing.

An Extension and Experiment Station WPS Scenario

An Extension agent or researcher has a demonstration or research test on a producer's or government property. The experiment has several treatments, including some restricted-use chemicals and some experimental-use compounds. The plots are arranged in a randomized complete block design with four replications.

QUESTION: Are educational research plots subject to WPS and what are the requirements in this situation?

ANSWER: Yes, educational facilities are subject to WPS -- they are not exempt. If the labeling for any product being applied contains the WPS statement box, then you must comply with the WPS. Some experimental products do not yet contain the WPS label statement; in those instances you need not comply with WPS requirements. However, you should! -- for your own safety, the safety of others, and to set a positive example.

QUESTION: Must I have a central posting that lists all the herbicides applied?

ANSWER: Yes. If WPS is required, so is central notification. This must be a central place accessible during business hours where employees can find out what has been applied within the last 30 days. Postings must be removed 30 days after the application. Employees must be informed about the posting area, which should include information about safety, emergency medical care and application procedures.

The easiest way to comply is to post a plot plan along with all required information. It may be difficult to explain research plots orally to field workers.

Treated sites need not be posted if no workers will be on the site nor walk within 1/4 mile of the site during application or during the re-entry interval (REI). Oral warnings need not be given to workers who will not be in or within 1/4 mile of a treated area during the application or the REI.

QUESTION: When do I have to post a re-entry interval on a field?

ANSWER: If any of the registered pesticides are TOXICITY CATEGORY 1 (RUPs) then they will require both oral notification AND posting of the EPA-approved "stern face and upheld hand" sign at the treated areas. Post the sign just before spraying and remove it when the REI expires, or no longer than 72 hours after the REI ends. The relevant REI is the one for the most restrictive chemical applied; it is part of the application information that must be centrally posted.

QUESTION: The only persons required to go into the field are the researcher and a graduate student. They will rate crop response to the treatments; but the first rating is a week after application. How does WPS apply?

ANSWER: Even if none of the pesticides have REIs greater than 7 days, the employees who might go into a treated area must be trained as workers *before* the sixth day of working in a pesticide treated area. You must provide decontamination supplies (1 gallon of potable water per person, single use towels and soap) for seven days after the application. Workers must be told where to find application information and about other applications on the station if they are within 1/4 mile of the plots. WPS would not apply to anyone who would never come within 1/4 mile of the plots.

IPM in Texas Public Schools

by Don L. Renchie

Recently, several CEAs have inquired about IPM in Schools. Here's a recap and update for all on the status of this regulatory and educational program.

Background

The Texas Structural Pest Control Board (SPCB) added an IPM in Schools rule to their regulations in 1995. All 1,050 Texas public school districts were required to appoint an IPM coordinator to oversee pest control activities on school property. Each district had to develop an IPM policy statement and plan, and send the IPM coordinator to a SPCB-approved training program.

To inform schools about integrated pest management and state law, Extension developed the booklet, B-6015 *Pest Control in Texas Schools*. A copy was distributed to each Extension county coordinator. I began conducting IPM coordinator training statewide in cooperation with the Texas Associations of School Boards and School Administrators, CEAs and various Texas Education Agency Regional Education Service Centers.

Current Status

Dr. Mike Merchant has produced a five-module independent study video/workbook series for national distribution. The series is for sale from Extension Publication and Supply Distribution (brochure enclosed). I continue to conduct IPM coordinator training, with a focus on urban counties. Additional locations can be scheduled for a minimum of 10 participants.

When a school district replaces an IPM coordinator, the new appointee must be trained within 12 months. This is a mandatory six-hour activity. Registration for the event I conduct is \$40 per person. Host CEAs may add to the fee to cover local costs or support related county programs.

In September 1997, state law was amended to allow employees of political subdivisions (cities, counties, municipalities and state governments) and cemeteries to license with either the SPCB or the TDA for landscape pesticide application. This did *not* alter the requirement for school districts to follow the IPM in Schools law.

Online Pesticide Labels and More

by Mary L. Ketchersid

The Crop Protection Reference (CPR) Manual is now on-line. It's fast, accurate and free. Labels and Material Safety Data Sheets (MSDS) can be located by brand name and company name, with 32 companies represented. View the label on-screen, save it or print it. The printout looks as good as the book and much better than a photocopy.

Web Sites Related to Preceding Articles

Remember, type <http://> before all addresses.

✓ Labels and MSDSs:

<www.greenbook.net> for agricultural products

<www.bluebooktor.com> for turf & ornamental products

✓ Professional Aerial Applicators Support System:
<www.agairupdate.com>

✓ FQPA:

<www.epa.gov/opppsp1/fqpa> for general background.
<www.epa.gov/opppsp1/fqpa/fqpa-iss.htm> for news on specific issues.

<www.epa.gov/oppfead1/trac> for news on tolerance reassessments.

<ace.orst.edu/info/nptn/fqpalist/fqpalist.htm> for the FQPA discussion group.

<www.epa.gov/oppfead1/cb/csb_page/Brochure/index.htm> for the draft consumer brochure.

✓ Section 18s, posted by TDA and EPA:

<www.agr.state.tx.us/pesticide/18crops.htm>

<www.agr.state.tx.us/pesticide/18fveg.htm>

<www.epa.gov/oppred001/section18>

✓ *Worker Protection Standard for Agricultural Pesticides: How to Comply Manual*

<ipmwww.ncsu.edu/safety/epawps_intro.html>

WPS information from TDA:

<www.agr.state.tx.us/pesticide/wpsbroch.htm>

<www.agr.state.tx.us/pesticide/wps.htm>

Texas Agricultural Hazard Communication Law:

<www.agr.state.tx.us/pesticide/rtkbroch.htm>

✓ *Pesticides Industry Sales and Usage Report:*

<www.epa.gov/oppbead1/95pestsales/95pestsales.pdf>

✓ Evapotranspiration (ET) Network: lists daily weather data including temperature, solar radiation, relative humidity, wind speed and rainfall for 15+ Texas areas.

<texaset.tamu.edu>

✓ Biological Control Virtual Information Center:

<ipmwww.ncsu.edu/biocontrol/biocontrol.html>

✓ 1997 *Census of Agriculture* from NASS:

<www.usda.gov/nass/>

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Extension Service is implied. Educational programs of the Extension Service are open to all citizens without regard to race, color, sex, disability, age or national origin.



Mary Ketchersid, Ph.D., Extension Associate

115 Agronomy Field Lab

College Station, Texas 77843-2488

m-ketchersid@tamu.edu