



PESTICIDE *Update*

Vol. XX - No. 1

Pesticide Section / Food & Drug Protection Division
<http://www.ncagr.com/fooddrug/pesticid/>

Summer 2002

Fires, Spills and Pesticide Security on the Farm

By Dwight Seal, Western District Manager

With recent heightened awareness regarding public health and safety, on-farm use and storage of pesticides are receiving more attention than ever. No matter how carefully you manage your farming operation, some accidents will happen. Accidents such as spills and fires have the potential to have serious impacts on the environment. In addition, whenever a pesticide emergency occurs, on-farm workers and emergency personnel responding to the incident are potentially vulnerable to exposure to concentrated pesticides and/or toxic fumes.

The North Carolina Department of Agriculture and Consumer Services (NCDA&CS) has developed this article to assist the farmer in preventing and controlling accidents involving pesticides. Three major areas of concern will be addressed: fires, spills and security.

Fires: Prevention and Control

The best way to avoid fires is to prevent a fire from starting in the first place. Do you carry over pesticides in the off season? This practice is really not a very good idea. Buy only what you need that season. If you use mini-bulk containers on your farm, secure them while not in use and disable the pump system by removing the electrical supply and cables.

Be sure to store pesticides in a secure, preferably locked area. When selecting a storage location, ask yourself the following questions:

- How secure is the storage area?
- Is the storage away from water supplies? **Never store pesticides in a well house.**
- Are supplemental heating devices safe and operable?
- Are there flammable and/or combustible materials (gasoline, acetylene, etc.) stored in the area?
- If the building caught fire, what else could be lost and would water contaminate the surrounding area? Pesticides should not be stored with valuable equipment.
- Can emergency vehicles get to the storage area?

No matter where you decide to store your pesticides, it is important to communicate with local fire authorities. Inform them of the location of your pesticide storage facility. Do you want water used to put out a fire? Adoption of alternative fire suppression methods is strongly suggested whenever pesticides are involved. When water is used on pesticide fires, the contamination can be spread into the surrounding environment.

(See Fire, Spills Security, continued, Page 3)

Inside

- **Private Rule Change**
- **Diazinon**
- **Do Nots and Why Nots of Stewardship**
- **Properly Cleaning PPE**
- **Retinal Degeneration Fact Sheet**
- **Take a Second Look at the Label**
- **Terrorism Vulnerability Self-Assessment**
- **Wildlife & Pesticides**
- **NCPB Actions**
- **Farmworker Safety Video**



Important Changes Made to the Private Applicator Rules

By Colleen M. Hudak, Certification, Licensing & Outreach Manager

On January 15, 2002, the N.C. Pesticide Board voted to adopt changes to the State Regulations (2 NCAC 9L .1100) which govern the certification and recertification of private pesticide applicators (farmers) in North Carolina. This final decision followed a series of public hearings and publication of the proposed rule change in the *North Carolina Register* (December 3, 2001). The rule change becomes effective October 1, 2002.

How will these new rules affect the private pesticide applicators of North Carolina? Basically, there will be two major changes:

1. Farmers applying for initial private pesticide applicator certification to purchase and apply restricted use pesticides will be required to pass a written examination to prove competency and
2. Farmers applying for renewal of their private pesticide applicator certification will need an additional two hours of training, making a total of four hours of training being required every three years.

Presently, most farmers become initially certified by attending a four-hour training session offered by the N.C. Cooperative Extension Service (NCCES). Although this training option will no longer be available to new applicators after October 1, 2002, any currently certified applicator will not be required to test so long as he maintains his certification. If, however, a private applicator allows his certification to lapse, he then can only get reinstated by passing a written examination.

After October 1, 2002, private pesticide applicators will earn recertification credits similar to how commercial applicators now do. Private applicators will still be required to attend a 2-hour pesticide safety (recertification) class at their local extension office during the final year of their three-year certification cycle. At the end of this safety class, each private applicator must sign an attendance roster and indicate his Social Security Number so that two hours of credit can be awarded to him. In addition, each private applicator must attend at least two extra hours of specialized training during his three-year certification cycle. Basically, any class that qualifies for commercial pesticide recertification credits in the *Aquatic, Ag Pest-Plant, Ag Pest-Animal, Forestry, Seed Treatment, or Ornamentals & Turf* licensing categories will also be approved for credit in private applicator specialty training. The private applicator can earn his two hours of specialized training at any time during his three-year certification cycle.

For example, suppose an applicator decides to go to a 1-hour *Aquatic* class during the first year of his certification period. He may then wait until his second or third year to attend another appropriate class (for example, a 1-hour *Ag Pest-Plant* class). It will be very important, that at the end of each class, the private applicator remembers to sign an attendance roster (the same roster that the commercial applicators sign) and write down his Social Security Number. If this private applicator also goes to a 2-hour pesticide safety class at his local NCCES office, he will then have met all of his recertification requirements (4 total hours in three years). A recertification application will be sent to him from the N.C. Department of Agriculture & Consumer Services so that he can sign and return it together with a \$6.00 renewal fee. Once the application and fee are processed, his private applicator certification will be advanced another three years, and a new certification card will be mailed.

All private applicators should check their certification cards NOW! Look for the "expiration date" in the bottom right-hand corner.

- *If the expiration date reads 12/31/02, then the private applicator must attend a 2-hour pesticide safety class before September 30, 2002, or he will be required to take a written examination to become re-instated. The local NCCES office should be contacted to determine the dates and times of the training that is being offered.*
- *If the expiration date reads 12/31/03 or later, then the private applicator must attend a 2-hour pesticide safety class and two hours of private applicator specialty training before September 30 of his expiration year to meet his recertification requirements.*
- *If a private applicator cannot locate his certification card or the expiration date is no longer readable on his card, then he should call the Pesticide Section at 919-733-3556 to determine his status.*

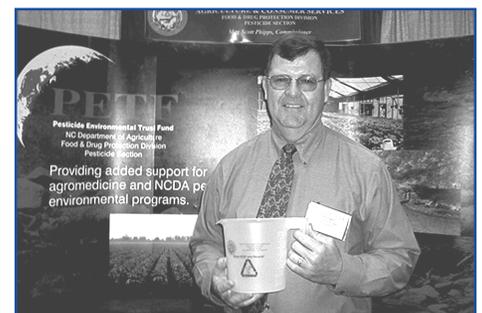
The Pesticide Section looks forward to working with the private applicators of the state as we implement these changes. Please feel free to call 919-733-3556 with any questions that you may have. ■

Applicators Win Calibration Pitchers

At the annual conference of the N.C. Soybean, Corn, and Small Grain Growers Associations held in the Research Triangle Park this past January, applicators who stopped by the NCDA&CS-Pesticide Section booth were given an opportunity to win a 2-quart calibration pitcher. Instructions on the 128th acre calibration method are imprinted on one side of the pitcher; the opposite side of the pitcher reads "Rinse NOW! and Recycle," the slogan for the state's plastic pesticide container recycling program

Eighty-one North Carolina counties now have active pesticide container recycling programs thanks to seed money offered through the Pesticide Environmental Trust Fund (PETF). This fund is supported through environmental assessment fees paid by pesticide manufacturers when they register pesticide products for sale in North Carolina. Since 1995, the PETF has provided more than \$2,000,000 for pesticide environmental programs in North Carolina. For information on the local recycling programs in your area, please visit the Pesticide Section's website at www.ncagr.com/fooddrug/pesticid. ■

Mr. Richard Rhodes, Pesticide Coordinator for Tyrrell County, is shown holding a calibration pitcher that he won at the Thirteenth Annual Joint Conference & Agricultural Expo. He is standing in front of the Pesticide Section's booth.



Fires, Spills and Pesticide Security (continued)

Continued from pg. 1

Placarding storage buildings is recommended. Use identification signs such as the National Fire Protection 704 placards, which can be obtained from local fire authorities, or approved pesticide storage signs available from the NCDA&CS or the North Carolina Cooperative Extension Service.

Spills: Prevention and Cleanup

Serious environmental contamination or human exposure can occur if pesticide spills are not properly dealt with. Take time to plan ahead in case such an accident happens. A spill can occur at any point during the application process. The most common spill occurs at the mixing/loading site. After years of repeated use, minor spills and splashes end up accumulating to cause substantial contamination. A spill of concentrated material is the worst case scenario. If this happens, contain the spill area and contact the proper authorities. NCDA&CS should always be called whenever a pesticide spill could result in adverse effects to humans or the environment. Pesticide inspectors can provide very valuable technical assistance to you as you clean up a spill. Prompt, appropriate handling of pesticide spills may also reduce your liability.

Highway accidents can occur during transportation of application equipment containing diluted pesticides. Significant pesticide spills can result from such accidents. It is not necessarily a violation of the law to spill a pesticide; it is, however, a violation to be negligent in not properly cleaning up a pesticide spill.

Consider the following to prevent spills from occurring and to minimize the damage from those that do:

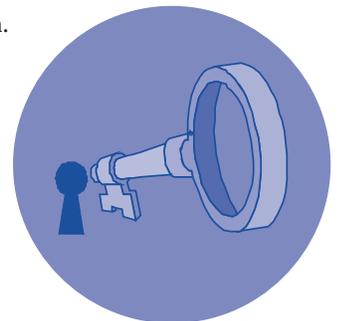
- Is your application equipment properly maintained? Check periodically for leaks and excessive wearing.
- Where do you mix and/or load pesticides? Avoid performing these operations near water supplies such as wells, rivers and ponds. It is best to mix and load in the field with the use of nurse tanks.
- What are your standard practices when making applications? Do not leave sprayers unattended when filling.
- Do you consider what routes you travel? Stay off busy roads with application equipment during high traffic times. If equipment must be taken on heavily traveled roads, use a slow-moving vehicle placard. Avoid bad and uneven roads or treacherous moves.
- How do you secure pesticides during transport? Do not store them in pickup beds without some type of restraints.
- Do you have a plan in case of a spill? Have absorbent material such as lime or sand available. Confine the spill and prevent it from moving. **NEVER WASH DOWN A PESTICIDE SPILL WITH WATER.**
- What do you do with contaminated soil? A small amount of pesticide-contaminated soil can be applied to a labeled site (crop specified on the product label). Large amounts of contaminated soil will need to be applied at agronomic rates calculated by a pesticide specialist.

Some pesticide spills require mandatory reporting based on the amount of active ingredient spilled. Contact the North Carolina Emergency Response at 1-800-451-1403 for this list. If a pesticide has spilled into a water supply or has the potential to, this **MUST BE REPORTED** to the North Carolina Division of Environmental Management at **919-733-5291**.

Pesticide Security: A Good Habit

Unfortunately, not everyone can be trusted to have the common good in mind. For example, prior to the events of 9-11-01, who would have ever imagined that the tools of agriculture would be used for criminal acts? We now need to think about the possibility of someone using ammonium nitrate to make explosives or anhydrous ammonia to create illicit drugs. Similarly, we need to be alert to the potential for pesticides and application equipment to be used as tools of terror. You as a farmer can serve a vital role in reducing opportunities for criminal misuse of agricultural chemicals. Consider the following in developing a management program for pesticides on your farm:

- Do not leave pesticides or equipment unattended in remote areas. Also, never leave pesticides unattended at the edge of a field, even if pesticides are in the back of a pickup truck.
- Keep pesticides under lock and key at all times. Note whether locks have been tampered with.
- Inventory pesticides. Know what you have and where it is stored.
- Be alert to suspicious activity, missing pesticides, or someone asking unusual questions about chemicals.
- Have emergency numbers available.
- Limit access to pesticides to only those employees who have responsibility for mixing, loading, or applying pesticides.
- Be prepared to provide pesticide dealers with requested information when making a pesticide purchase.



Conclusion

The agricultural community must be responsive to the areas of concern addressed in this article. We must focus on reducing the incidence of on-farm accidents and improving the security of agricultural chemicals. Being prepared is the key to limiting risks. By following a few simple guidelines, you can do your part to keep pesticides from being involved in a serious incident on your farm or from getting in the hands of people who may use them for criminal acts. ■

Wildlife Exposure to Pesticides: How to Manage the Risk

By Henry Wade, Ph. D., Environmental Programs Manager

Across North Carolina pesticides are applied to forests, aquatic habitats, farmland, rights-of-way, turf, and gardens to control various pest populations. These sites are also the habitats of a variety of beneficial wildlife species. The widespread use of pesticides makes contact with residues inevitable for some wildlife. Pesticide poisonings to wildlife may be caused by runoff to surface water during rainfall, spray drift, foraging on pesticide treated vegetation or insects, or consumption of pesticide treated granules, baits, or seeds. Also, pesticides may impact wildlife through secondary poisoning when an animal consumes prey species that contain pesticide residues.

Fortunately, not all pesticides have detrimental effects on all wildlife, nor do pesticide residues necessarily lead to serious consequences for wildlife. Individuals planning to use pesticides outdoors should seek the advice of wildlife, conservation, and pesticide professionals at universities, state, and federal agencies for guidance on the choice and proper use of pesticides and alternative pest control strategies. In addition, consideration should be given to strategies to improve wildlife habitat.

Implementation of the management suggestions listed below will benefit wildlife and simultaneously allow for control of damaging insect, weed, and disease pests. Remember, with all of these suggestions, the user must also be in compliance with the pesticide product label.

Be Careful Around Natural Areas

- All wildlife needs natural areas in which to feed, rest, reproduce, raise young, and take shelter. Create wildlife habitats by encouraging and promoting the growth of native vegetation. This also reduces the need for mowing.
- Select disease and insect resistant trees and shrubs to plant on your property, thereby reducing the need for pesticides.
- Prevent wildlife poisoning by storing pesticides and wildlife feed separately.
- Do not feed wildlife near pesticide storage and mixing areas.

Wildlife Will Benefit When You Understand and Follow Pesticide Labels

- Keep wildlife habitats in mind when reading pesticide labels.
- Compare labels and select highly specific products, which pose reduced risks to nontarget species. Read the label carefully and use the lowest effective rate.
- Calibrate equipment carefully to assure that the pesticide is applied at labeled rates.
- Ask the local Cooperative Extension Service for the EPA bulletin, *Protecting Endangered Species Interim Measures*, for the county where the pesticide will be applied. Follow limitations stated in the bulletin.
- Take heed of the label. The environmental and wildlife precautions on labels are based on scientific and regulatory actions. They must be followed. It's the law, good business, and the right thing to do.
- Consult the Pesticide Section or Cooperative Extension Service for additional assistance on label clarification or to determine potential pesticidal impacts on wildlife. Also, consult state natural resource agencies, natural heritage programs, and the Nature Conservancy for additional information about wildlife, native vegetation, and endangered species.



Be on the Alert for Wildlife Before and During Pesticide Applications

- If you can identify areas that are frequented by wildlife, especially by flocks of birds, avoid spraying near those areas or, if possible, reduce the application rates.
- Homeowners should search for bird and mammal nests before spraying fruit or ornamental trees, shrubs, or lawns, and then avoid applications near those areas.
- Investigate the use of alternative pest control tactics (mechanical, cultural, and biological), when available and practical. For example, tillage, crop rotation, pest resistant plants, natural predators, and trapping can help control pests.
- Scouting and pest identification are critical components of wise pesticide use. To save money and reduce impacts on wildlife, apply pesticides only when pests are present at unacceptable levels.
- Remember, it is important to guard against pesticide drift and runoff. Apply pesticides under low, directional wind conditions and use adjuvants when appropriate. Use buffer zones of unsprayed crops or grass strips adjacent to important habitats to help protect wildlife.
- Adjust application schedules to reduce likelihood of runoff. Do not make pesticide applications when rain is imminent. Surface runoff may move some pesticides into ponds, streams, and wetlands inhabited by wildlife. In urban areas, such runoff may flow into storm drains leading directly to streams and rivers.
- Multiple pesticide applications may have cumulative effects, especially during breeding seasons. Reduce the frequency of applications, when possible, and target each application to the specific site of the pest instead of making applications over entire fields or lawns.
- Control weeds and insects in lawns and gardens by spot treating to reduce the amount of pesticide applied.
- Where practical, eliminate the use of pesticides in and around field edges and corners, fencerows, set-aside acreage, nesting sites, vegetation near streams and wetlands, and areas that are dedicated to wildlife (except for spot treatment to control state-listed noxious weeds). Especially important are sensitive areas such as endangered species habitats, native plant communities, and sinkholes.
- Check the label for instructions on incorporating pesticide granules into the soil or watering them into soil. These techniques allow the pesticide to reach the target pests more readily, and foraging birds are less likely to ingest them.
- Never spray leftover pesticides or wash equipment near wetlands, rivers, streams, creeks, potholes, ponds, marshes, sinkholes, other wildlife habitats, or drains leading to these areas. Dispose of leftover pesticides in an approved manner as specified on the labels.

For additional information, contact your local Cooperative Extension Service or the NCDA&CS, Pesticide Section at 919-733-3556. ■

Pesticide Environmental Stewardship

Why We Should Never Do Certain Things!

DO NOT!

WHY NOT?

Make or use home-made baits to kill stray pets and animal pests. Children may pick them up and eat them; desirable animals may be killed.

Apply pesticides to food crops which are not listed on the label. Residues may result in exposure to people.

Apply pesticides by aircraft when wind is blowing over 10 miles per hour. Damage may occur downwind to desirable vegetation, people or other animals.

Let pesticides drift or run-off into a neighbor's pond or property. Fish in ponds might be killed or ornamental plants and gardens might be damaged, making them unsafe to eat or handle.

Apply pesticides to places for which they are not labeled. Damage to the crop or site might occur or unsafe residues might result.

Toss empty and unwanted pesticide containers into the local stream or lake. Fish might be killed or unsafe residues may result in the lake being closed to fishing and swimming.

Fail to rinse and recycle empty plastic pesticide containers. Concentrated pesticides might remain and/or be released into the surrounding areas, affecting drinking water and environmentally sensitive areas.

Spray hazardous pesticides around well heads. Drinking water could become contaminated.

Store pesticides in an open shed. Pesticides might be stolen or leak into the soil and contaminate groundwater.

Store pesticides on a wood or dirt floor. Pesticides might leak into the soil or present other toxic effects.

Follow the philosophy that "if a little pesticide will do the job, then twice as much is twice as good". Excessive pesticides may be released into the environment or result in unsafe residues.

Plant row crops up to the edge of streams and lakes. Pesticides may run into the lake or stream.

Spray on a schedule without scouting for pests. Unnecessary cost; excess pesticides may be released into the environment.

Fail to read a pesticide label before spraying. Environmental and safety precautions may not be followed.

Apply pesticides where endangered species exist. Endangered species may be adversely affected.

Apply pesticides up until the day of harvest. Food and commodities may be contaminated.

Fail to have an organized plan to handle spills. Harm to people and/or the environment may occur.

Let pesticides get into the wrong hands. Almost anything could happen!

*Adapted from an article written by Harry R. Fulton of the Mississippi Dept. of Agriculture



PESTICIDE
Update

Pesticide Section

North Carolina
Department of Agriculture &
Consumer Services
Food & Drug Protection Division
Pesticide Section
P.O. Box 27647
Raleigh, NC 27611
(919) 733-3556
FAX (919) 733-9796
<http://www.ncagr.com/fooddrug/pesticide/>

Pesticide Update is a quarterly report of the Pesticide Section.



Please Recycle.

The Worker Protection Standard: A Review and What's New in 2002

By Gwen Minton, Pesticide Inspector II

Now that the growing season is just about over, let's stop a minute and consider how well we have addressed the requirements of the Worker Protection Standard. This standard applies to farms, forests, nurseries, and greenhouses that use pesticides in the production of agricultural plants and employ workers and/or pesticide handlers. If you own or manage such an establishment, keep in mind that you have responsibilities to protect your employees from pesticide exposure.

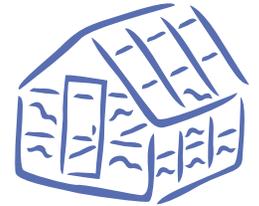
Let's Review

To insure that workers and handlers have all the information they need concerning pesticide applications, the employer must provide the following:

- Pesticide safety training
- Pesticide safety poster
- Access to labeling information of the pesticide product being used
- Access to specific information on all pesticide applications being made while workers and handlers are present on the establishment

To safeguard employees from avoidable pesticide exposure, WPS requires the employer to:

- Provide handlers the correct personal protective equipment (PPE)
- Notify workers of pesticide applications
- Protect early-entry workers from pesticide exposure
- Prohibit handlers from applying a pesticide in a way that will expose workers or other persons
- Keep workers out of areas being treated with pesticides
- Prohibit workers from entering areas that remain under a restricted entry interval (REI)



To mitigate pesticide exposures that workers or handlers receive, WPS requires the employer to provide:

- Decontamination sites with an ample supply of water, soap, and towels for routine washing and emergency decontamination
- Emergency assistance making transportation available to a medical care facility if a worker or handler is suspected of being poisoned or injured by a pesticide

What's New

The Pesticide Section is responsible for conducting on-farm WPS inspections. These inspections are conducted to determine the level of compliance with WPS and to ensure that employers, workers, and handlers are aware of their rights and responsibilities under WPS. In 2001, EPA decided it was time to take a look at WPS inspections across the country to see if all WPS requirements were being addressed. EPA's findings showed that more communication was needed with the workers, handlers, and the owners of establishments. So how does this effect you as an employer?

Starting with the 2002 growing season, the Pesticide Section has implemented a more detailed process for WPS inspections. Pesticide inspectors still inspect the central notification area, looking for the safety poster, emergency medical information, and application records, and they verify that the training required by WPS is occurring. In addition, pesticide labels are now being examined even more closely to ensure that the correct PPE required for handlers and early-entry workers is available. Pesticide inspectors are interviewing workers and handlers with the assistance of a bilingual pesticide specialist. The purpose of these interviews is to get employees' views on training, PPE, and the information found at the central notification site. If a bilingual specialist is not available, workers are being given bilingual forms to complete and return to the Pesticide Section.

If you are an agricultural employer and you have questions or concerns about WPS, please contact the North Carolina Department of Agriculture & Consumer Services at (919) 733-3556, or visit our website (www.ncagr.com/fooddrug/pesticid) for additional information. ■

NCPB Actions

At the October and November 2001, and January and March 2002, meetings of the North Carolina Pesticide Board, the following settlement agreements, including license suspensions and monetary penalties totaling \$15,900.00, were approved for alleged violations of the NC Pesticide Law of 1971. Consent to the terms of the settlement agreement does not constitute an admission of guilt to any alleged violation.

Preston Barnett, Stantonsburg, for the alleged violation(s) of making a pesticide application(s) so as to cause drift from pesticide particles or vapors resulting in adverse effects and for using a pesticide in a manner inconsistent with its labeling. Mr. Barnett agreed to pay a monetary penalty of \$300.00.

C. David Batts, Rocky Mount, for the alleged violation(s) of providing or making available

a restricted use pesticide to an unlicensed or uncertified person and for misconduct while acting as a pesticide dealer. Mr. Batts agreed to a monetary penalty of \$300.00.

Larry D. Chambers, Canton, for the alleged violation(s) of making a pesticide application(s) so as to cause drift from pesticide particles or vapors resulting in adverse effects; using a pesticide in a manner inconsistent with

its labeling; for storing pesticides in an unsecured manner; for failing to store pesticides to prevent leaking and unauthorised access; for failing to store pesticides in an area free of combustible materials; for failing to post a warning sign to non-display pesticide storage areas and for

Continued on page 9)

Dealer Notice

Diazinon Cancellation and Phase Out of Uses

By Lee Davis, Registration Manager

On December 5, 2000 the Environmental Protection Agency (EPA) announced that an agreement had been reached with diazinon manufacturers to remove or phase out certain uses of this pesticide. Diazinon is one of the most widely used insecticides in the United States, with about 75% being used in and around homes.

The registrations for products labeled for all indoor uses (except mushroom houses) and some agricultural uses are now in the process of being cancelled or amended (that is, only certain uses deleted). Not all products have made it through this review process, and it could take several more months to complete. Therefore, the exact date that any particular product's registration may be cancelled or amended will depend on when the manufacturer submits a cancellation or amendment request to EPA and when EPA finalizes this request. During this process, various diazinon products labeled for use on the cancelled sites will continue to be available for sale and purchase.

Indoor Uses

Indoor uses being cancelled include sites such as food/feed handling establishments, greenhouses, schools, residences, museums, sports facilities, stores, warehouses, hospitals, vehicles, vessels, aircraft or any other enclosed area. This action will also cancel diazinon applications to any contents inside these enclosed areas. Diazinon use in pet collars is likewise being cancelled. Products with these uses are still available in the marketplace; however, supplies of diazinon products labeled for the above uses will soon begin to decrease as more and more manufacturers cancel products or have the uses removed from their labels. It is important to note, however, that **by December 31, 2002, retailers must stop selling any diazinon product labeled for any indoor use listed above.** Also, keep in mind that there is no EPA mandated program requiring that manufacturers buy back any remaining stocks. Retailers should purchase only what they think they can sell by December 31, 2002. It will be the retailer's responsibility to properly dispose of any remaining cancelled products after this date.

Agricultural Uses

Agricultural uses being cancelled include: alfalfa, bananas, bermuda grass, beans (dried), celery, red chicory (radicchio), citrus, clover, coffee, cotton, cowpeas, cucumbers, dandelions, kiwi, lespedeza, parsley, parsnips,

pastures, peppers, Irish potatoes, sheep, sorghum, squash (winter & summer), sweet potatoes, rangeland, Swiss chard, tobacco and turnips. All other agricultural uses are being retained.

Like the indoor use products, diazinon products with agricultural uses are still available and can still be sold, but supplies of diazinon products labeled for the above uses will also decrease as more and more manufacturers cancel products or have the uses removed from their labels. Unlike the retail sale of products labeled for indoor uses, the retail sale of products labeled for the agricultural uses listed above can continue until stocks are depleted.

Outdoor Residential and Outdoor Non-Agricultural Uses

All outdoor residential uses (such as home lawn & garden) and outdoor non-agricultural uses (such as applications around businesses) are being phased out over the next few years. This phase out is to follow the timeline below.

- In 2002, there will be a 25% decrease in production of outdoor residential and/or outdoor non-agricultural manufacturing-use diazinon.
- In 2003, there will be a 50% decrease in production of outdoor residential and/or outdoor non-agricultural manufacturing-use diazinon.
- By June 30, 2003, manufacturers are to stop formulating diazinon end use products with outdoor residential and/or outdoor non-agricultural uses.
- By August 31, 2003, manufacturers are to stop selling to retailers diazinon end use products with outdoor residential and/or outdoor non-agricultural uses.
- By December 31, 2004, all retail sales of diazinon end use products with outdoor residential and/or outdoor non-agricultural uses must stop. Also on this date, technical registrants are required by the EPA to begin buying back from retailers and formulators any remaining stock of diazinon products that are labeled for outdoor residential and/or outdoor non-agricultural uses.

Products in the Possession of the End User.

Products labeled for any of the uses being cancelled (indoor, agricultural, outdoor residential and/or outdoor non-agricultural) already in the hands of the end user can continue to be used according to the existing label until the product is depleted. ■

New Additions to the Pesticide Section Web Site

By Laura Stover

Licensee Search

This new feature can be used to search the commercial applicator database for information such as license expiration dates, certification expiration dates, license types, and category types. At the present time, the site does not list recertification credit hours or information on private applicators, but there are plans to add these features in the future. To use the new licensee search, go to: <http://www.ncagr.com/aspzine/fooddrug/data/advsearch.asp>.

NORTH CAROLINA DEPARTMENT OF AGRICULTURE & CONSUMER SERVICES
NCDA&CS HOME SERVICES DIVISIONS SITE MAP CAREERS EVENTS SEARCH

Pesticide Section
Home Page
Site Map
Contact Information
Compliance Assistance
Inspections
Endangered Species
Pesticide Emergencies
Pesticide Storage & Disposal
Pesticide Product Testing
Field Staff Contacts
Español
Registration, Licensing & Information
Special Programs
Environmental Programs
Links

Food & Drug Protection DIVISION ~ Pesticide SECTION

Pesticide Licensee Search*

*Does not include private pesticide applicators (farmers)

Search By Name or License Number

Search By County: All NC Counties Category: Any Category

License Type: All License Types Results to be displayed per page: 10 15 25

Do NOT show Expired License

Database Last Updated on 7/25/2002

Disclaimer:
Data provided are for informational use only and should not be cited as official government records.
Since these data are time-sensitive and subject to change, contact the Pesticide Section
(919-733-3556) when official confirmation is needed.

[Disclaimer: Data provided are for informational use only and should not be cited as official government records. Since these data are time-sensitive and subject to change, contact the Pesticide Section (919-733-3556) when official confirmation is needed.]

Event Calendar

Most recently added to the Pesticide Section Web Site is our calendar of events. This calendar lists the Pesticide Section's outreach events for each month. To see upcoming farm shows, licensing exams, and presentations, go to: <http://www.ncagr.com/fooddrug/pesticid/calendar/calendar.asp>

Additional Links of Interest

To find out information about the new regulation that requires pesticide dealers to keep sales records for all restricted use pesticides, visit: <http://www.ncagr.com/fooddrug/pesticid/specialnotices2.htm>

To read about new changes to the rules governing the certification and recertification of private pesticide applicators, go to: <http://www.ncagr.com/fooddrug/pesticid/privateapplicator.htm>

To learn how to protect yourself and your business from terrorism, check out the "Terrorism Threat Vulnerability Self-Assessment Tool": <http://www.ncagr.com/BioterrorAssesment.htm> ■

For more information about pesticides,
contact your local Cooperative Extension Service office.

TAKE A SECOND LOOK AT THE LABEL

Grass and other weeds are a big problem for boarding kennels. It's hard to get your employees to remove them from dog runs. I decided to buy a herbicide to take care of the problem. We are always advised to read the label *first* and then do exactly what it tells you. While reading the product label, I noticed that the active ingredient was "Diquat Dibromide" (present in a concentration of 2.30%). Under entry restrictions, the product label says, "Do not allow people or pets to touch treated plants until the sprays have dried". Then, it describes the dilution rate as follows:

For **easy to kill** weeds, 3-5 oz / gallon of water,
For **harder to kill** weeds, 6-9 oz / gallon of water,
For the **hardest to kill** weeds, 9-12 oz / gallon of water.

Most people would simply spray whichever ratio they thought was best. Then, as soon as the grass and weeds had dried, the animals would be returned to the area. We have followed the label directions, haven't we? STOP! We are dealing with family pets. Can we afford not to take a second look at the label?

At the bottom of most product labels, there is a phone number you can call for questions or comments. I advise you to always call and ask questions. For one thing, based on the limited information on the label, it's often hard to determine which dilution rate you should really use. Also, the product label often doesn't contain much information on animal safety. I called the company and told them I wanted to kill the grass and weeds inside my dog runs, but I wanted to use the lowest rate possible so as not to poison the dogs. In addition, I needed to know how long to wait before I could return the pets to the runs. What would happen if they eat the grass?

The first question that the company representative asked me was if I had a problem with a pet that had been poisoned. I told him no, and that I didn't want to have a problem, so that's why I was calling. The company could not answer my questions and concerns. The comment was made that no one had ever asked such questions.

If product labels are not always as informative as they should be, and even the product manufacturers may not be able to answer our questions, where can we turn for help? The American Society to Prevent Cruelty to Animals (ASPCA) has established a 24-hour a day hotline, the ASPCA Animal Poison Control Center (888-4ANI-HELP or 888-426-4435). There is \$45 consultation fee that must be paid by the animal owner, veterinarian or product manufacturer for each call to the hotline. (The product manufacturer I was dealing with eventually referred me to this hotline, offering to pay all expenses for this consulting service.) ASPCA also has a very useful web site, www.aspc.org. A special "Thank You" to Drs. Knight and Eubig, two veterinarians with experience in animal toxicology, who responded to the ASPCA hotline and gave me permission to use their names and the information I'm about to tell you.

Drs. Knight and Eubig told me the amount of product (9 oz) to use per gallon of water and informed me not to let the dogs back on the sprayed area for two weeks. All of the dead grass and weeds should be pulled up and then thrown

By Patricia Johnson (DWAA),
North Carolina licensed pesticide applica-

away. (Be sure to wear gloves while doing this.) If a pet eats too much of the dead grass or weeds, it may cause kidney damage. Drs. Knight and Eubig also told me that I should realize that when spraying the grass and weeds the pesticide also gets on the soil and gravel. Since pets are likely to contact the soil and gravel with their feet, they can get additional exposure by absorbing the pesticide through the pads of their feet or by licking their feet.

I went one step further by searching "Diquat Dibromide" on the Internet. I was directed to the NIOSH Pocket Guide to Chemical Hazards website (<http://www.cdc.gov/niosh/npg/npgd0243.html>). This site lists symptoms (irritation of the eyes, nosebleeds, delayed healing of wounds, skin burns, diarrhea, etc.) that may result from acute exposure to the concentrated active ingredient. According to other websites, long term exposure to the concentrated active ingredient can result in clouding of the eyes (cataracts) and damage to the toenails. Although these symptoms are important to be aware of, you should not be alarmed. Most of these symptoms are highly unlikely to occur in pets because they are based on laboratory tests where animals were exposed to the concentrated active ingredient at very high rates. Still, the information is useful to know and can help you spot problems in animals that have had a very large exposure to the pesticide.

Never assume any pesticide that you are applying on the yard is "safe," until you check it out for yourself. Always take a second look at the label. Ask questions. Know where to find additional information on the side effects and antidotes for various pesticides. Let's safeguard our pets! ■

NCDA&CS Offers Terrorism Vulnerability Self-Assessment for Agri-Business

The NCDA&CS has launched a website www.ncagr.com/BioterrorAssesment.htm to help agri-businesses better understand their potential vulnerabilities to terrorism. The "Terrorism Threat Vulnerability Self-Assessment Tool" is not intended to replace any of the current reporting requirements, but to assist organizations and local law enforcement with determining existing vulnerabilities at various facilities around the state.

By Kay Harris, Worker Protection Specialist

Experience has shown that to reduce vulnerabilities you must heighten your awareness. Basic defensive steps such as monitoring all activities and performing routine checks and balances will certainly help. In addition, close coordination with your local law enforcement agency will further reduce the chance that an act of terrorism will occur at one of your facilities. Your self-assessment can be completed with little to no cost and in a fairly short period of time. Let's get started! ■

For additional information or questions contact the N.C. Department of Agriculture & Consumer Services, Emergency Programs Division, at 919-807-4300

Properly Cleaning Protective Clothing

By Kay Harris, Worker Protection Specialist

Have you ever noticed that pesticide manufacturers almost always put the following statement on their product labels? "Wear the appropriate personal protective equipment (PPE) when using this product and clean PPE after each use." Encouraging the use of PPE is the manufacturer's attempt to reduce your exposure to pesticides. Although pesticides can enter the body through the mouth, the skin, and the respiratory system, we now know that the majority of pesticides are absorbed through the skin ("dermally"). For this reason, personal protective clothing must be worn when handling or applying pesticides.

Proper care when laundering PPE extends the use and life of the garment. PPE soiled by low toxicity pesticides can generally be cleaned effectively with hot, soapy water. In other instances, the pesticide's solubility and formulation can determine how the clothing should best be cleaned. For example, 2,4-D *amine* is water-soluble and can be relatively easily removed when PPE is laundered in hot, soapy water; the 2,4-D *ester* formulation, on the other hand, is more soluble in oil or petroleum based solutions and requires the use of a stronger phosphate detergent. The pesticide label is your best guide in identifying the toxicity level ("CAUTION," "WARNING," or "DANGER") as well as the formulation (amine, ester, water soluble, or petroleum based) of a product. Here are some additional tips for laundering protective clothing.

- Wash pesticide-contaminated clothes as soon as possible after each day's use. Wash them separately from the rest of the family laundry.
- Make sure that whoever does the laundry knows that the PPE is contaminated with a pesticide(s). This person should have access to the pesticide label and wear waterproof gloves when handling pesticide-soiled clothing.
- Choose either phosphate (powder) detergents or heavy liquid detergents that are known for their oil removing abilities. Launder in hot water, the hotter the better. The water temperature should be at least 120°F, and preferably 140°F. Use a normal wash cycle of 12 minutes with a full water level to allow the water to thoroughly flush the fabric.
- Use of bleach or ammonia is usually not necessary since they do not contribute to the removal of pesticide residues from fabrics.
- Line dry PPE since many pesticides breakdown in sunlight. Do not put PPE in dryers since residues can build up in them.
- Use fabric starch. Pesticide residues tend to cling to starch and are easily removed by the next wash.
- Do not dry clean PPE. The dry cleaning process includes the use of solvents that can transfer pesticides to other clothing.
- Laminated or coated suits made from polyvinyl chloride (PVC), nitrile, or other rubber-like materials should not be decontaminated in a washing machine. Instead, hose them off and then wash them in a tub of hot, soapy water. Line dry these materials in the shade to minimize damage by the sun. ■



For additional information about cleaning pesticide-contaminated PPE, please phone Kay Harris at (919) 733-3556, or contact her by e-mail at Kay.Harris@ncmail.net.

NCPB Actions (continued)

Continued from page 6

failing to develop and file, with the local fire department or emergency service office, a prefire plan. Mr. Chambers agreed to a monetary penalty of \$400.00 and not to apply any pesticide product containing the active ingredient clomazone for one year.

Ron E. Cottle, Faison, for the alleged violation(s) of making a pesticide application in a manner inconsistent with its labeling and for making false or fraudulent records, invoices, or reports. Mr. Cottle agreed to pay a monetary penalty of \$500.00.

W. Keith Cottle, Richlands, for the alleged violation(s) of storing pesticides in an unsecured manner or disposing of pesticides or their containers in a manner other than those recommended by labeling. Mr. Cottle agreed to pay a monetary penalty of \$300.00.

Anthony E. Darden, Clinton, for the alleged violation(s) of making a pesticide application so as to cause drift from pesticide particles or vapors that result in adverse effects and for using a pesticide in a manner inconsistent with its labeling. Mr. Darden agreed to a monetary penalty of \$600.00.

Steve D. Dooley, La Grange, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling; for storing or disposing pesticides or pesticide containers by means other than those described by the label or the rule; and for applying a pesticide under conditions where drift from particles or vapors result in an adverse effect. Mr. Dooley agreed to pay a monetary penalty of \$1,200.00.

Drexel Chemical Company, Memphis, TN, for the alleged violation(s) of failing to notify the Pesticide Section, NCDA&CS at least 24 hours prior to delivery of any bulk pesticide. Drexel Chemical Company agreed to pay a monetary penalty of \$500.00.

Bradley S. Hartman, Jacksonville, Florida, for the alleged violation(s) of applying a pesticide in a manner inconsistent with its labeling. Mr. Hartman agreed to pay a monetary penalty of \$300.00.

Larry B. Howell, Jr., Como, for the alleged violation(s) of applying a pesticide under conditions that drift from the pesticide(s) resulted in adverse effect and for using a pesticide in a

manner inconsistent with its labeling. Mr. Howell agreed to a monetary penalty of \$800.00.

Douglas A. Jernigan, Mt. Olive, for the alleged violation(s) of making a pesticide application under conditions that drift from particles or vapors resulted in adverse effects; and for using a pesticide inconsistent with its labeling. Mr. Jernigan agreed to a monetary penalty of \$300.00 and not to apply any pesticide product containing the active ingredient 2,4-D ester for one year.

Steve P. Kloser, Cloverdale, Virginia, for the alleged violation(s) of distributing, selling or offering to sale a restricted use pesticide to an unlicensed NC pesticide dealer. Mr. Kloser agreed to pay a monetary penalty of \$500.00.

Richard V. Lancaster, Stantonsburg, for the alleged violation(s) of failing to post in a place accessible to workers, specific information pertaining to pesticide application(s); for failing

Continued on page 11



Agricultural Health Study

NC OFFICE BAGGELLE CENTERS FOR PUBLIC HEALTH RESEARCH & EVALUATION
100 CAPITOLA DR., SUITE 301 DURHAM, NC 27713 1-800-4AG-STUDY

www.aghealth.org

Retinal Degeneration and Fungicide Use

February 2002

Retinal or macular degeneration is breakdown of the retina, the inner layer of the eye that transmits images from the lens to the brain. (The macula is the central, most sensitive portion of the retina.) Retinal degeneration causes vision to be reduced or lost and is the leading cause of blindness in older adults. The risk of developing retinal degeneration increases with age and is greater for women than men. Other factors that may be related to the condition include light eye color, hypertension, diabetes, and sun exposure, but little is known about the role of exposure to occupational or environmental toxins. Some studies of animals suggest that exposure to organophosphate insecticides or fungicides may damage the eye.

In order to investigate the relationship of retinal degeneration to pesticide exposure, we used information from the Agricultural Health Study, a long-term study of licensed pesticide applicators in Iowa and North Carolina. Only 154 applicators (less than 1%) reported having a doctor's diagnosis of retinal degeneration. Information from questionnaires completed at the time of enrollment in 1994-1997 was used to compare pesticide use in these applicators with pesticide use in 17,804 applicators without retinal degeneration. Most of the participants in this retinal degeneration study were farmers (99%) and most were white men (97%).



Retinal degeneration was:

- Two times more common in applicators who had used fungicides—chemicals used to control fungus and prevent rot on crops. Results were similar in North Carolina and Iowa.
- One-and-a-half times more common in applicators who had used organochlorine pesticides—a group of insecticides, including aldrin and DDT, that are mostly no longer in use.
- Not clearly related to other pesticides.
- More than twice as common in applicators who raised orchard fruit (apples or peaches).

The relationship of retinal degeneration to raising orchard fruit, described above, was seen only in farmers who used fungicides. Orchard farmers who did not use fungicides were not more likely to have retinal degeneration. This finding suggests that the condition is related to using fungicides, not to raising orchard fruit.

The relationship of retinal degeneration to insecticide use that we found in our study is similar to relationships found in other studies of humans and animals. However, this is the first study in humans to report a relationship of retinal degeneration to fungicide use. Because no one study by itself can fully answer a question, more work needs to be done to determine whether this relationship will hold up. Epidemiology studies like ours report a statistical association, which needs to be confirmed by additional epidemiology studies, as well as animal and mechanistic studies, before we can determine whether fungicide use actually causes retinal degeneration.

The Agricultural Health Study is a long-term study to investigate the effects of environmental, occupational, dietary, and genetic factors on the health of the agricultural population. This study will provide information that agricultural workers can use in making decisions about their health and the health of their families. The study is conducted in North Carolina by Battelle Centers for Public Health Research and Evaluation and in Iowa by the Department of Epidemiology at the University of Iowa. The study is directed by the National Cancer Institute, the National Institute of Environmental Health, and the US Environmental Protection Agency.

Michael C. R. Alavanja, Dr. P.H.
Project Officer
Occupational Epidemiology Branch
National Cancer Institute
Executive Plaza South, Room 8000
Rockville, MD 20852

Aaron Blair, Ph.D.
Assistant Project Officer
Occupational Epidemiology Branch
National Cancer Institute
Executive Plaza South, Room 8118
Rockville, MD 20852

Dale P. Sandler, Ph.D.
NIEHS Project Officer
Epidemiology Branch
National Institute of Environmental Health Sciences
111 T. W. Alexander Drive, P.O. Box 12233
Research Triangle Park, NC 27709

Kent Thomas
Team Leader, AHS Pesticide Exposure Study
NERL, Environmental Research Center Annex
USEPA
T. W. Alexander Drive MD 56
Research Triangle Park, NC 27711

The study's most important finding is that retinal degeneration was consistently related to fungicide use. This relationship was seen in farmers from both Iowa and North Carolina. Farmers who had used fungicides for more days over their lifetime were more likely to report the condition than those who had used fungicides for fewer days.

Also, applicators who used certain methods to apply fungicides were more likely to have retinal degeneration. These methods—hand spray gun, backpack sprayer, and mist blower—may all involve greater contact with the fungicide than other methods, such as tractor boom. Using personal protective equipment did not appear to reduce the likelihood of developing retinal degeneration, although our study did not have enough information to resolve this issue completely. In particular, the condition appeared to be related to exposure to the whole body, not necessarily to the eye, and was not reduced by using goggles or face masks.

For further information about this study, please visit the Agricultural Health Study website at www.aghealth.org. ■

The Agricultural Health Study seeks to identify factors that promote good health.

Now Released on Video: FARMWORKER PESTICIDE SAFETY IN NORTH CAROLINA!

By Peyam Barghassa, Bilingual Pesticide Specialist

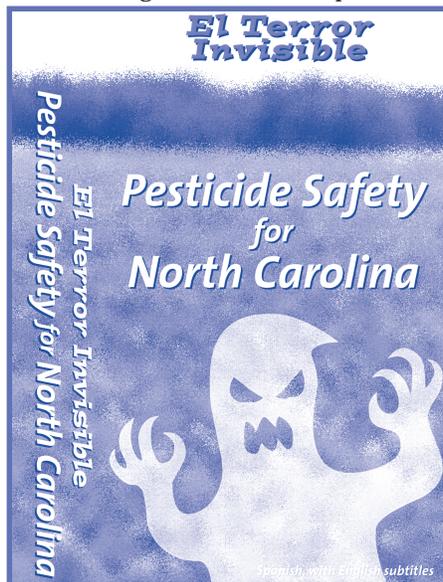
It may not be on the top 10 list of your local video store, but if you employ workers and handlers on your agricultural establishment, *El Terror Invisible: Pesticide Safety for North Carolina* is sure to be a hit.

This pesticide safety video, produced by Wake Forest University School of Medicine (WFUSM), is a valuable tool for complying with the training requirements of the Worker Protection Standard (WPS). Syngenta, Aventis Crop Science, and the N.C. Pesticide Environmental Trust Fund provided financial support to WFUSM for the development of this video.

Drs. Thomas A. Arcury and Sarah A. Quandt of WFUSM realized the need for a WPS training video in Spanish that would not only be culturally sensitive to Hispanic farmworkers, but also representative of North Carolina agriculture. Hours of film footage were shot right here in our state, using actors and scenery to which workers could relate. Your employees will like this video's use of believable characters, easily understandable dialogue,

and familiar scenery. The video is also subtitled in English so that it can be shown to an English-speaking audience.

The video consists of a series of individual segments. The first part covers



the core material that trains your employees to the *worker level* - someone who does not handle pesticides directly. The second part can be shown in conjunction with part one in order to train an employee up to the *handler level* - someone who mixes, loads, or applies pesticides or who performs other similar operations (disposing of pesticides or pesticide containers, cleaning or adjusting residue contaminated equipment, etc.). In addition to these parts which cover the WPS, there is a module to teach pesticide safety around the home and one that covers Green Tobacco Sickness (GTS). If you employ workers to harvest tobacco, you may find the GTS video very beneficial. Although the Home Safety and GTS modules are not requirements of the WPS, they are important tools that can help keep your employees safe.

If you are an agricultural employer and would like further information about the availability of this video, please contact the North Carolina Department of Agriculture & Consumer Services, Pesticide Section @ (919) 733-3556. We're sure your workers will give it a thumbs up! ■

NCPB Actions (continued)

Continued from page 9

to post the pesticide safety poster which displays the basic pesticide safety concepts; for failing to provide decontamination supplies for workers and handlers in quantities sufficient to meet needs of workers/handlers. Mr. Lancaster agreed to pay a monetary penalty of \$500.00.

Charles L. Lawson, Jr., Monroe, for the alleged violation(s) of failing to pay the original or renewal license fee for a pesticide dealer license and selling a restricted use pesticide to an unlicensed or certified person; and misconduct in acting as a pesticide dealer. Southern States/Mr. Lawson agreed to pay a monetary penalty of \$900.00.

Phil A. McCarty, Farmville, for the alleged violation(s) of distributing, selling, or offering for sale a restricted use pesticide to an unlicensed NC pesticide dealer. Mr. McCarty agreed to a monetary penalty of \$500.00.

Cristi C. Pavlic, Raleigh, for the alleged violation(s) of engaging in the business of a pesticide applicator without a license. Ms. Pavlic agreed to pay a monetary penalty of \$300.00.

Dennis Phillips, New Bern, for the alleged violation(s) of negligently using, handling, transporting, and storing a pesticide in a manner inconsistent with its labeling and in a manner that endangered man and the environment. Mr. Phillips agreed to pay a monetary penalty of \$900.00.

Martin B. Plamondon, Bakersville, for the alleged violation(s) of making a pesticide application in a manner inconsistent with its labeling. Mr. Plamondon agreed to a monetary penalty of \$300.00.

Henry B. Shearin, III, Louisburg, for the alleged violation(s) of providing or making available a restricted use pesticide to an unlicensed or uncertified person and for misconduct while acting as a pesticide dealer. Mr. Shearin agreed to a monetary penalty of \$800.00.

Nathan B. Sears, Ocracoke, for the alleged violation(s) of making pesticide applications within 100 feet of a fish bearing area; for using a pesticide in a manner inconsistent with its labeling; for failing to develop and file with the local fire department or emergency service office, a prefire plan and for storing pesticide containers or pesticides by means other than those prescribed on the label or by rule; and for failing to request (in writing) an annual inspection of the facility by the local fire department. Mr. Sears agreed to a monetary penalty of \$1,800.00.

Southern States Cooperative, Inc., Naples, for the alleged violation(s) of storing pesticides in an unsecured manner; for handling, storing, displaying and distributing a pesticide in a manner so as to endanger man and the environment and misconduct while acting as a pesticide dealer; for failing to have bulk tanks properly

inspected prior to repackaging; for failing to store pesticides in an area that is dry; and for repackaging a pesticide into containers of other manufacturers and using a different company's establishment number. Southern States agreed to a monetary penalty of \$1,800.

Wal-Mart Store #1751, Raleigh, for the alleged violation(s) of storing pesticides in an unsecured manner and for disposing pesticides and pesticide containers so as to cause or allow open dumping. Wal-Mart Store #1751 agreed to pay a monetary penalty of \$400.00.

Wal-Mart Store #1767, Shallotte, for the alleged violation(s) of storing pesticides by means other than those prescribed on the label or by rule. Wal-Mart Store #1767 agreed to pay a monetary penalty of \$400.00.

Christopher R. Wiley, Charlotte, for the alleged violation(s) of operating as a pesticide applicator with an expired license; for failing to pay a license renewal fee and continuing to operate as an applicator and for using a pesticide in a manner inconsistent with its labeling. Mr. Wiley agreed to a monetary penalty of \$500.00.

David E. Williams, Durham, for the alleged violation(s) of engaging in the business of a pesticide applicator without a license. Mr. Williams agreed to pay a monetary penalty of \$300.00. ■

For More Information

PESTICIDE SCHOOLS AND MATERIALS FOR CERTIFICATION AND RECERTIFICATION

CONTACT: Dr. Wayne Buhler, Dept. of Horticultural Science, Box 7609, NCSU, Raleigh, NC 27695.
Phone (919) 515-3113

CERTIFICATION, LICENSING, AND RECERTIFICATION CREDITS OR TESTING

CONTACT: Mike Williams, Pesticide Section, NCDA&CS, P.O. Box 27647, Raleigh, NC 27611. Phone (919) 733-3556

PRIVATE APPLICATOR RECERTIFICATION CLASSES

CONTACT: Your local Cooperative Extension Service office

COMMERCIAL APPLICATOR AND DEALER RECERTIFICATION CLASSES

CONTACT: Pesticide Section Homepage www.ncagr.com/fooddrug/pestcid

PESTICIDE CONTAINER RECYCLING

CONTACT: Colleen Hudak, Pesticide Section, NCDA&CS, P.O. Box 27647, Raleigh, NC 27611. Phone (919) 733-3556

PESTICIDE WASTE DISPOSAL

CONTACT: Royce Batts, Food and Drug Protection Division, NCDA&CS,
P.O. Box 27647, Raleigh, NC 27611 (919) 733-7366 or (919) 715-9023.

PRSRRT STD
U.S. Postage
PAID
Raleigh, NC 27611
Permit No. 821

PESTICIDE Update
North Carolina Dept. of Agriculture
& Consumer Services
P.O. Box 27647
Raleigh, NC 27611

