



PESTICIDE Update

Vol. XXII - No. 1

Pesticide Section / Food & Drug Protection Division

<http://www.ncagr.com/pesticide>

Summer 2004

Focus on Health: The Agricultural Health Study in North Carolina

Since 1993, the National Cancer Institute, the National Institute of Environmental Health Sciences and the U.S. Environmental Protection Agency have conducted a study in North Carolina and Iowa to evaluate the health of rural communities. Altogether, about 90,000 individuals are participating.

In North Carolina, Private Pesticide Applicators and their spouses – a total of over 31,000 – are helping researchers learn more about agricultural exposures, lifestyle choices, and health. By including a large group of individuals engaged in agriculture and updating their information about every five years, the study team will be able to learn more about factors that are important to good health.

Participation

Study participants have provided information through questionnaires and telephone interviews. Many men and women



have provided biologic samples for gene and gene-exposure analyses. Farmers in both states have participated in studies that observed their real-life farming operations and measured chemical exposures in a variety of application methods to understand more about protection and risk.

Being able to study health and exposure changes over time makes the Agricultural Health Study unique. The study is no longer enrolling new participants, but it is extremely important for everyone, including those who have retired or those who no longer farm, to participate in the new round of interviews scheduled to begin in late 2005. All parts of the study are reviewed and approved by boards responsible for the protection of human subjects. Information is kept confidential, and no individual is ever identified in study reports.

(See Agricultural Health Study, continued, Page 2)

Attention Farmers Watch those Ammonia Tanks

By Ricky Langley (MD MPH) and

Sherry Giles (MPH), N.C. Department of Health & Human Services

Since September 11, 2001, most farmers have become aware of the need to safeguard their pesticides and nitrate fertilizers and to look for suspicious outbreaks of diseases among their farm animals. There is a new threat, however, crossing the United States, and your help is needed. The new threat, a form of domestic terrorism, is the rise of illegal methamphetamine labs across the country. These labs are increasingly being found in rural areas of North Carolina.

Methamphetamine is an illegal drug. Common street names for this drug include crank, go, uppers, beannies, ice, crystal, fast and zip. As these names suggest, methamphetamine is a stimulant. It is one of the most addictive substances known and can cause numerous adverse health effects in users. Children who live in homes where methamphetamine is being manufactured may suffer health problems from exposure to the chemicals. Law enforcement agents have also been injured when investigating methamphetamine labs.

So why do farmers need to be concerned? One of the methamphetamine manufacturing methods, the Nazi/Birch method, uses ammonia. Trespassing on farms and theft from ammonia storage tanks is on the rise across the country. Since the thieves often damage the tanks rather than just steal the ammonia, a farmer frequently suffers a very significant loss. Not only is he out the cost of the ammonia, but he also must incur the expense of

(See Watch Those Ammonia Tanks, continued, Page 3)

Inside

- **Cleaning up the Environment by Recycling Plastic Containers**
- **Section 18 Emergency Exemptions**
- **Pesticide Section Develops Strategy for Pesticide Storage at Home Improvement Stores**
- **English for the Workplace**
- **The DEET Goes On**
- **Pet Groomer Sees Avoidable Risks**
- **Ask the Inspector**
- **What's New on the Pesticide Section's Website**
- **Board Actions**

Agricultural Health Study

Continued from pg. 1

Figure 1 provides a brief overview of participants. Although pesticide application is largely a male-dominated activity, over 1,000 female applicators enrolled in the study. In addition, the enrollment of 32,000 spouses has provided the study an understanding of the role of women in farm and household activities and a better understanding of family health. The study is exploring ways that families work together to get the job done while limiting unnecessary risks. For example, how clothes are washed, how foods are cooked, whether children grow up around farm animals or work on the farm may be related to their health.

The study is providing important new information about life within the agricultural community. In addition to painting, welding, repairing farm equipment, grinding animal feed, treating livestock, and working in animal confinement areas – more than half of the farmers also have jobs off the farm. Figures 2-4 depict these common activities among farmers and those that also hold additional jobs.

Study News

Even though the study is designed to be long-term, the directors of the project are already making findings available in public meetings, news releases, and through articles published in professional journals. Those articles are also posted on the project's website: www.aghealth.org.

One of the goals of the project is to get the information back to those who have participated. Due to the size of the study and the need to conduct the activities in a cost-efficient manner, yearly mailings to all participants and the broader agricultural community have not been feasible. However, the North Carolina Field Station is preparing study news to be mailed to each person in North Carolina who has participated in the Agricultural Health Study. The mailing will be sent in the fall of 2004. North Carolinians who filled out study forms following certification classes 1994-1997 and their spouses who filled out forms at home or by phone should watch for the mailed study report. If you took part but have a different address, you can call the study office now at 1-800-424-7883 (1-800-4-AG Study) to update your address or to make suggestions.

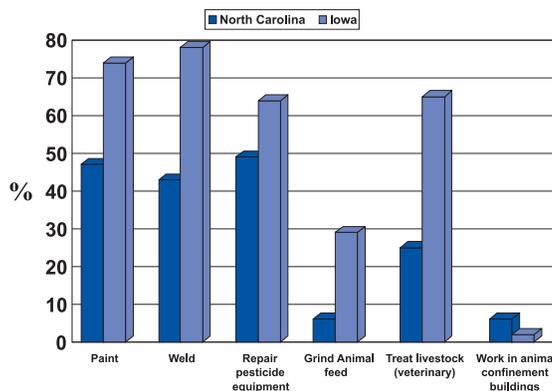
Health Issues

Farmers in general are healthier and live longer than other Americans, according to scientists directing the Agricultural Health Study. Earlier studies of other rural communities indicated there may, however, be a higher incidence of certain types of cancers. For example, people living and working in the agricultural community may have a higher incidence of cancer of the skin and lip, brain, stomach, connective tissue, and non-Hodgkin's lymphoma and leukemia. By linking with vital and disease registries, researchers hope to find answers to these questions.

Figure 1. Characteristics of Participants

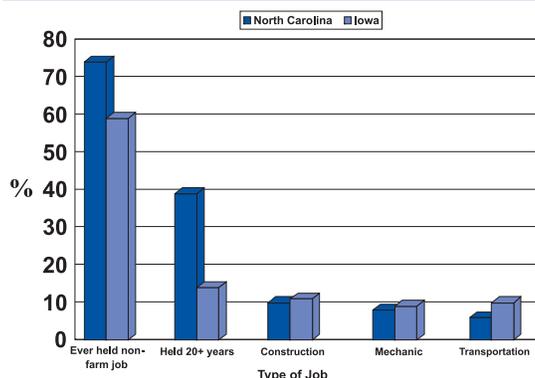
	Private Applicators	Spouses
Enrolled:	52,371	32,347
State:		
Iowa	31,853	21,771
North Carolina	20,518	10,576
Race:		
White	48,367	30,755
Nonwhite	1,323	538
Gender:		
Men	50,878	220
Women	1,341	32,127
Age:		
50+	22,506	13,715
Education:		
12+ years	43,110	28,947

Figure 2. Activities Performed at Least Once a Year by Farmers



From: Coble J et al. J Exposure Anal Environ Epid 12:418-426, 2002

Figure 3. Non-Farm Jobs Held by Farmers



From: Coble J et al. J Exposure Anal Environ Epid 12:418-426, 2002.

Figure 4. Reported Exposures from Non-Farm Jobs

Agent	North Carolina	Iowa
Pesticides	7%	7%
Engine exhausts	20	21
Solvents	16	16
Welding fumes	16	16
Wood dust	14	8
Grain dust	4	10
Silica	5	4
Asbestos	8	4

From: Coble J et al. J Exposure Anal Environ Epid 12:418-426, 2002.

Watch Those Ammonia Tanks

Continued from pg. 1

replacing his ammonia tanks. Additionally, the people who make the methamphetamine often use farms as disposal sites. Multiple types of chemicals, many of which are corrosive, flammable and toxic, may be used and illegally dumped on farms. These materials can be a hazard to animal stock and may also contaminate well water and/or soil.

The persons stealing ammonia often use propane tanks to store the ammonia. These tanks are not designed to hold ammonia and may leak or explode. A clue that propane tanks may have been misused is that ammonia causes a bluish discoloration of the brass fittings on the propane tank.

In North Carolina, the number of methamphetamine labs has increased dramatically over the last few years. The State Bureau of Investigation (SBI) reports that the number of illegal labs found in North Carolina increased from nine in 1999 to 177

labs in 2003. The number is expected to double this year.

In some states, farmers are placing locks on their ammonia tanks. In Iowa, research is being conducted on an additive that can be mixed with the ammonia to make it unusable in illegal drug manufacture. We need your assistance in limiting access to ammonia tanks. If you find your ammonia tanks have been damaged or you see possible chemical waste that has been dumped on your farm, immediately contact your local law enforcement agency. Let's work together to fight this new threat to North Carolina farms. ■



Section 18 Emergency Exemptions

By Lee Davis, Pesticide Registration Manager

From time-to-time *urgent, non-routine* pest control situations will arise in a state, but no effective pesticide will be registered by the U.S. Environmental Protection Agency (EPA) for the control of the pest. When these situations occur, the state pesticide regulatory agency may consider requesting an "emergency exemption" from registration so that an effective pesticide can be used to control the pest in a timely manner. These exemptions are sometimes called "Section 18 Exemptions," referring to the section of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) which addresses this matter. For a Section 18 to be considered, there must be no effective, non-pesticidal measures available to control the pest. In addition, if a pesticide is to be used on a food or feed commodity, a tolerance (permanent or temporary) must be established before a Section 18 can be granted. The tolerance level is simply the maximum amount of a pesticide residue that may legally remain on or in food or feed commodities at harvest or slaughter.

If the above conditions are met, states can request from the EPA a time-limited emergency exemption that will allow the use of a pesticide even though the product and/or use is not "registered" on the federal or state level. This option is provided under FIFRA as a means of addressing situations that cannot be postponed until a regular federal registration for the product can be obtained. The EPA requires that petitions for emergency exemptions be submitted in writing by the head of the requesting state or federal agency, the governor of the state, or an official designee. In North Carolina, the Commissioner of Agriculture is the official designee who petitions EPA for emergency exemptions.

Sometimes Section 18 exemptions are used to address unforeseen emergencies that, if not checked quickly, could result in catastrophic commodity losses or endangerment to human health or the environment. Other times, exemptions are used to address problems that, according to history, can be expected to occur at some point in the future. For example, let's say that over the past few years, a certain disease has become an increasing problem on blueberries and, left unchecked, is expected to cause large scale damage to the upcoming crop. The only pesticide known to provide acceptable

control of this disease is currently being evaluated for federal registration, but the EPA has not yet completed the review. Provided the product review is proceeding favorably, the EPA may decide to allow limited use of it under an emergency exemption.

"Only certified or licensed applicators, or those under their supervision, can use pesticides under an emergency exemption in North Carolina."

When the EPA grants an exemption from registration, very specific instructions regarding the application of the pesticide are included in the authorization documents. Generally, limits are set as to how much product can be used or how many acres can be treated. Restrictions such as preharvest intervals, method of application, or application buffer zones may also be included. To help ensure that only properly trained individuals apply pesticides under an emergency exemption, North Carolina law designates all such products as state Restricted Use Pesticides (RUPs). Therefore, only certified or licensed applicators, or those under their supervision, can use pesticides under an emergency

Registration is an exhaustive review process that each pesticide product must undergo before EPA assigns it an EPA Registration Number.

exemption in North Carolina. Also, only licensed pesticide dealers can sell these products in North Carolina. To be in compliance, an applicator must have in his possession the specific Section 18 labeling that has been developed for a product that is being used under an emergency exemption. ■

For more information on emergency exemptions, please contact the Pesticide Section at 919-733-3556, or visit our website at www.ncagr.com/pesticide.

Cleaning up the Environment by Recycling Plastic Pesticide Containers

By Dr. Henry Wade, Environmental Programs Manager

One of the best plastic pesticide container recycling programs in the United States is here in North Carolina. From 1995 through 2003, USAg Recycling, Inc., an Agricultural Container Recycling Council contractor, collected 2,308,532 pounds of plastic pesticide containers. This amount would equal around 3,078,000 plastic 2.5-gallon containers. North Carolina has annually recycled over 300,000 pounds of plastic pesticide containers during five of the past seven years.

The recycling of empty pesticide containers has been very beneficial to the state, users of the products, and others for several reasons:

- The burden on local solid waste disposal facilities and landfills has been reduced.
- Farmers and commercial applicators have an environmentally friendly and inexpensive way to eliminate a disposal problem.
- Recycling provides an alternative to burning, burying, dumping, or water dumping of pesticide containers, all of which is illegal in North Carolina.
- Recycling conserves a nonrenewable resource; chips from empty plastic pesticide containers have been used to manufacture new pesticide containers, pallets, speed bumps, and parking stop bars.

The plastic pesticide container-recycling program first began in Pitt County in 1990. Since then, 89 other counties have implemented recycling programs. Grants from the North Carolina Pesticide Environmental Trust Fund (PETF) have been given to programs representing 85 counties. The PETF grant money has commonly been used:

- to purchase large containers to store empties in until they can be granulated,
- to produce educational and promotional materials,
- to buy pressure rinse nozzles that are specifically designed to puncture and rinse containers, and
- to purchase safety equipment to wear when handling the containers.

Martin County is an example of a North Carolina county that has used its PETF grant to develop an outstanding recycling program. In 2003 this county was awarded the John L. Smith Pesticide Container Recycling Award for its efforts. The Martin County Cooperative Extension Service received a \$2000 check and a plaque at the May 2003 meeting of the N.C. Pesticide Board. The county estimates that it has saved \$30,000 in landfill tipping fees since 2001.

The map of North Carolina below shows the counties that currently have active plastic pesticide container recycling programs. Today, 78 counties have active programs. Some of the counties that stopped their programs did so because of a lack of participation. Farmers, commercial pesticide applicators, and dealers need to work together to get container recycling programs started in counties that do not have active programs and to enhance and promote programs that are active. Our goal is to have a viable program in every county.

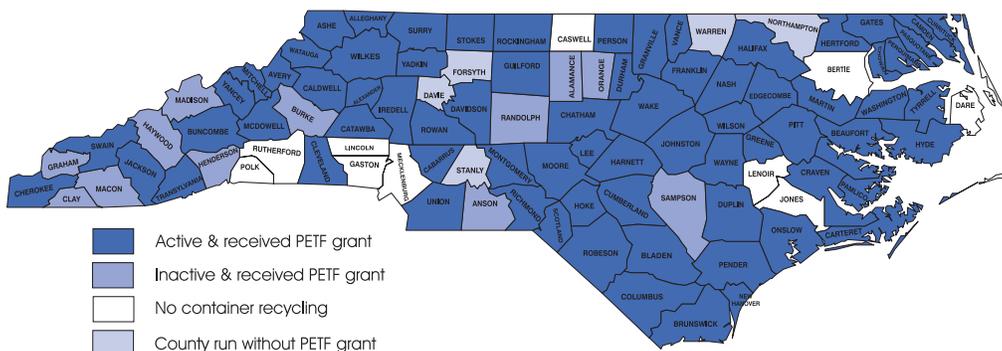
Although most county programs have done a very good job of seeing that only properly prepared pesticide containers are collected, a few counties have experienced container rejection rates of greater than 2% of the total containers delivered to a site. This level is too much for any location. These rejections were the result of containers that were either not properly rinsed or had label booklets, metal handles, or caps not removed. Applicators who plan to participate in a county's recycling program are reminded to do the following:

- Triple or pressure rinse immediately after emptying the contents of a container. Add the rinse water to the spray mix.
- Store the empty containers out of the rain since water in a container can be mistaken for residue.
- Keep dirt and gravel out of the containers because these substances can cause problems for the recycling company.
- Be sure that all label booklets, container caps, and metal handles, etc. have been removed.

Keep in mind that trained inspectors are at collection sites and will not accept any container that does not meet the above criteria.

The only way a county recycling program can survive and be effective is with the strong support of the farmers and commercial pesticide applicators in the county. If you have never been involved in the container-recycling program, please consider becoming a recycler this year. If you once recycled and stopped for some reason, please consider restarting the practice. You will be doing great things for yourself, the county, and planet Earth. ■

***To find a recycling location in your county for plastic pesticide containers, please contact your county pesticide coordinator or visit our website at www.ncagr.com/pesticide.*



Pesticide Section Develops Strategy for Pesticide Storage at Home Improvement Stores

By Dwight Seal, Western District Manager

Improper storage of pesticides in a retail establishment can lead to unintentional exposure of customers to pesticides or can result in serious environmental contamination due to storm water runoff or ground-water contamination. The proper storage of pesticides is the responsibility of all retail establishments, even those that sell only general use pesticides or handle a minimal amount of product. Just because a store is not legally required to become a licensed pesticide dealership doesn't mean that it is exempt from certain storage regulations.

The requirements of Section .1902 of the N.C. Administrative Code apply to the storage of *all* pesticides. In addition, many pesticide labels contain specific instructions regarding how the product should be stored. For example, pesticide labels often state that the product should be stored in a *cool, dry location*. Some labels require that the product be stored in a *secured or locked location*. Since in North Carolina "the label is the law," it is a violation of State law if any directions for storage that are found on a pesticide label are not strictly followed. Due to the potentially serious consequences associated with the improper storage of pesticides, the Pesticide Section diligently monitors the marketplace to ensure that proper storage practices are being followed.

Early this spring, the Pesticide Section was contacted by an environmental group that was concerned over the storage of pesticides in parking lots and in open storage areas of the lawn and garden centers of home improvement stores. This written complaint included photographs showing broken bags of spilled pesticides (weed and feed products, herbicides and some insecticides) beside storm drains. The products that were being offered for sale contained the same active ingredients as some of the commercial grade pesticides, but at much lower concentrations.

The seriousness of this situation required a quick response by the Pesticide Section. Management contacted the home improvement center's corporate office. Store management requested a three-week period of time to develop a plan and work with vendors towards implementation of it. The plan consisted of instructions to stores to remove all pesticides from uncovered areas where they could come into contact with rain. The plan also required that all pesticide storage areas would be locked or fenced in. The home improvement chain of stores quickly put the plan into action. The Pesticide Section was given a notice, on company letterhead, which was to be given to any store that was found to out of compliance with this new policy. The corporate office promised to investigate any store that was not following the established policy for storing pesticides.

The home improvement chain of stores and the Pesticide Section worked cooperatively to resolve a situation that was potentially detrimental to the safety of the general public and the surrounding environment. As of today, no stores have been found to be out of compliance with the directives that they have received from headquarters. ■



PESTICIDE
Update

Pesticide Section

**North Carolina
Department of Agriculture &
Consumer Services
Food & Drug Protection Division
Pesticide Section**

1090 Mail Service Center
Raleigh, NC 27699-1090
(919) 733-3556

FAX (919) 733-9796

<http://www.ncagr.com/pesticide>

Pesticide Update is a quarterly report
of the Pesticide Section.



Please Recycle.

Ask the Inspector

Tom Bowman, Pesticide Inspector I, Western District

“Ask the Inspector” is a featured Section of the Pesticide Update. If you have a specific question you would like addressed in this column, please email it to dwight.seal@ncmail.net

- 1. As a farmer, I often purchase a herbicide in 30-gallon bulk containers. Can I sell it to my neighbors in smaller containers?***

Selling pesticides in this manner is illegal. First, the applicator is probably not being provided complete product labeling at the time of purchase. In addition, most farms do not qualify as an “EPA establishment site” according to regulations adopted by the U.S. Environmental Protection Agency (EPA). Some of these very strict requirements include applying for and receiving an EPA establishment number, receiving permission from the registrant (the company that makes the pesticide), keeping books and records of sales and inventory, and being inspected annually by EPA. Such restrictions help to ensure that pesticides purchased in the market place are free from cross contamination and that they contain the ingredients stated on the product label.

- 2. Everyone knows that moles are a terrible pest problem in home yards. Why does the Pesticide Section protect them?***

Moles are protected in North Carolina by laws that are administered and enforced by the North Carolina Wildlife Commission. Since the North Carolina Wildlife Commission has declared the Eastern Star Nosed Mole as endangered, the Pesticide Section will not register any pesticide for sale in North Carolina that makes label claims to control (kill) this species or any other species of mole. For help in controlling or trapping moles, contact your local Cooperative Extension Agent.

- 3. I am an owner of a lawn care company. I recently visited a pesticide supplier to purchase a herbicide. As I was preparing to check out, the clerk informed me that because of its labeling, the product that I wanted to purchase was not the correct one for my use. The product that he instructed me to buy was made by the same company and had the exact same active ingredient and the same percentage of the active ingredient; the only difference was that this product’s labeling specifically stated that it could be used on turf. The product that I wanted to purchase was cheaper, but it did not list turf as a use site. Would there have been a problem if I had purchased and used the cheaper product?***

A simple and quick answer would be yes, since in North Carolina the “Label is the Law.” This simply means that all use requirements included on the label of a pesticide sold in North Carolina are considered part of our State law and, and as such, must be strictly followed. When purchasing a pesticide of any type, one must be sure to check that the crop or site where the pesticide is to be used is listed on the product label. In your case, your supplier was aware of the type of work that you do and the probable sites where you would use the herbicide. Although not his responsibility, the supplier was helping you avoid a violation of the N.C. Pesticide Law.

- 4. I own and operate a landscape and lawn care company. In the last Pesticide Update I read that you only need a license to apply pesticides to another person’s property if you receive compensation (money). Is this correct?***

Yes, this is correct. In 1995 the legal definition of a “pesticide applicator” in North Carolina was amended to exclude volunteers who make pesticide applications to the property of another without receiving compensation. This change in the law means that it is now legal for someone to make a pesticide application to property owned by his church, civic group, family, neighbor, etc. so long as he receives nothing in return for his services. A lawn care company that applies pesticides as a part of its business does not fall under this exclusion; in this case, an applicator licensed in the Ornamentals & Turf category must make and/or supervise all pesticide applications. ■

English for the Work Place

By Carmina Hanson, Bilingual Pesticide Specialist

Nash Community College Teaching Pesticide Safety in ESL Course

Communication is essential for good work performance. Good language skills enable workers to learn more about their jobs, increase their understanding of their employer's instructions, build better interpersonal relationships and, when contact with the general public is required, improve customer service. Since immigrants make up a large percentage of today's agricultural work force, a language barrier often exists between the agricultural employer and the workers that he hires. According to the National Agricultural Workers Survey conducted in 2000 by the U.S. Department of Labor, eighty-one percent of all farm workers were foreign-born and only one-tenth of these workers spoke or read English fluently. The North Carolina Employment Security Commission estimated that in 2003 migrant and seasonal farm workers in the state possibly exceeded 100,000 individuals. Miscommunication and frustration often results when the employer and his workers do not share a common language.

To help reduce communication problems, Mr. Dale Bone, a farmer in Nash County, decided to help his Spanish-speaking employees learn English. He partnered with the local Community College's English as a Second Language Program (ESL) to accomplish this task. The ESL Coordinator developed a curriculum to fit the needs of the students and their employer. The students, all of who were permanent employees on Mr. Bone's farm, were taught the basic language skills needed to perform their daily jobs. Most of the students received instruction in the various skills necessary for being a pesticide applicator.

Staff from the Pesticide Section worked with the ESL Coordinator to develop the pesticide-specific portion of the curriculum. The class used the same pesticide training materials as those used by English speaking applicators. The Bilingual Pesticide Specialist and several Pesticide Specialists instructed students on topics such as pesticide labels, personal protective equipment, and the correct application of pesticides. At the end of each week, the NCDA&CS instructors reviewed the material covered during that week. During the weekly review, "real-life" scenarios were discussed, and students had an opportunity to ask questions before taking a weekly practice exam. Students who completed the 11-week class took the NC Private Pesticide Applicator examination.

"This project was beneficial because it provided the Pesticide Section with an opportunity to interact firsthand with farm workers and evaluate their level of knowledge and understanding of pesticide safety and application," said Jim Burnette, Pesticide Section Administrator. "It has also established a foundation for the development of a class curriculum in which Spanish-speaking farm workers can learn English and pesticide management to further improve their skills and performance." Project organizers plan to evaluate the program to determine areas for improvement, and they hope to seek additional funding to continue offering this type of training. ■

Valid Certification is Needed for any RUP Purchase

By Colleen Hudak-Wise, Certification, Licensing & Outreach Manager

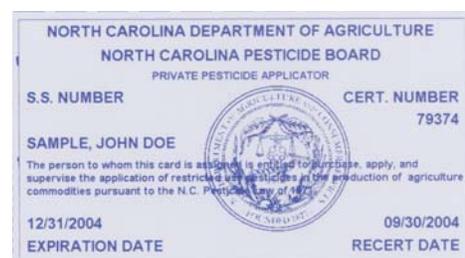
In North Carolina, pesticides classified by the U.S. Environmental Protection Agency or the North Carolina Pesticide Board as restricted use pesticides (RUPs) *can not* be sold to the general public. In addition, only licensed pesticide dealers may sell RUPs. Why are some pesticides classified as RUPs? In general, a pesticide is given the RUP designation because the product has a high human toxicity and/or there are environmental hazards associated with use of the product. It is hoped that by restricting the availability of these pesticides, the risk to humans and the environment will be lessened.

According to regulations adopted under the N.C. Pesticide Law of 1971 (Administrative Code Title 2, Chapter 9L, § .1302-.1303), RUPs can only be sold or made available to the following qualified (certified) individuals: certified private pesticide applicators, licensed pesticide applicators, certified structural pest control applicators or licensed structural pest control applicators. If certain conditions are met, employees working under the direct supervision of the above applicators may also purchase RUPs.

It is the responsibility of each pesticide dealer to ensure that sales of RUPs are only made to certified applicators. Since the Pesticide Section certifies or recertifies applicators on a daily basis, it is important that a dealer has access to the most up-to-date information possible. The Pesticide Section's website

(www.ncagr.com/pesticide) has a search feature that allows anyone to check on the certification status of an applicator. Most pesticide dealers have found this search feature to be extremely helpful. If a pesticide dealer does not have Internet accessibility, he can request a listing (hard copy, CD, or diskette) of the certified applicators in his area; the disadvantage of relying on this technology is that the listing is only current the day that it is generated.

Violating North Carolina law by making a RUP available to a non-certified individual can be very risky. The N.C. Pesticide Board can find a dealer guilty of a Class 2 misdemeanor and can assess a civil penalty of \$2,000 per sales violation. Dealers, don't let this happen to you. Be sure and check the current certification status of each and every person that purchases RUPs from your dealership. The time spent in doing so is well worth the effort. ■



NCPB Actions

At the February through July 2004 meetings of the North Carolina Pesticide Board, the following settlement agreements, including license suspensions and monetary penalties totaling \$18,000.00, 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.

Dalton Williams, Windsor, NC, for the alleged violation(s) of providing or making available a restricted use pesticide to a non-certified private applicator. Mr. Williams agreed to pay a monetary penalty of \$750.00.

Larry C. Mitchell, Harrellsville, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and applying restricted use pesticides without the proper license or certification. Mr. Mitchell agreed to a monetary penalty of \$450.00.

Foy Ward, Tyner, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and violation of the preharvest interval required by the label; failing to give notice of application, specific application information, personal protective equipment and safety training for handlers to his employees as required by the Worker Protection Standard. Mr. Ward agreed to pay a monetary penalty of \$900.00.

T.J. Greene, Snowy Mtn. Nursery, Inc, Crossnore, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling, for failing to give notice of pesticide application to employees, pesticide safety training, posting pesticide specific information, personal protective equipment, notice of application to other employers and for failing to comply with application restrictions and decontamination rules as required by the Worker Protection Standard. Mr. Greene agreed to pay a monetary penalty of \$900.00.

Frank W. Hobson, Yadkinville, NC, for the alleged violation(s) of storing a pesticide in a manner that endangers man and his environment and for failing to notify the secretary of the NC Pesticide Board of a spill or unintended release of pesticides. Mr. Hobson agreed to pay a monetary penalty of \$1,500.00

Brian Mc Manamon, Clayton, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and for making or recommending a pesticide application not in accordance with the label. Mr. McManamon agreed to pay a monetary penalty of \$400.00.

Curtis R. Brown, Siler City, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and for making or recommending a pesticide application not in accordance with the label. Mr. Brown agreed to pay a monetary penalty of \$450.00

Leelan A. Woodlief, Youngsville, NC, for the alleged violation(s) of providing or making a restricted use pesticide available to a non-certified private applicator. Mr. Woodlief agreed to pay a monetary penalty of \$1,500.00.

Jack Kroustalis, Lewisville, NC, for the alleged violation(s) of using a restricted use pesticide in a manner inconsistent with its labeling and for applying a restricted use pesticide without the proper license or certification. Mr. Kroustalis agreed to pay a monetary penalty of \$450.00.

Donald R. Barefoot, Shallote, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and engaging in the business of a pesticide applicator without a license. Mr. Barefoot agreed to pay a monetary penalty of \$800.00.

Wayne E. Goss, Creedmore, NC, for the alleged violation(s) of providing or making available a restricted use pesticide to a non-certified private applicator. Mr. Goss agreed to pay a monetary penalty of \$900.00.

William Cox, Dover, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and for failing to pay the original or renewal license fee when due and continuing to operate as an applicator. Mr. Cox agreed to pay a monetary penalty of \$350.00.

Gerald D. Walker, Yadkinville, NC, for the alleged violation(s) of improperly storing a pesticide or pesticide container in a manner as to cause injury to humans, vegetation, crops, livestock, or wildlife. Mr. Walker agreed to pay a monetary penalty of \$900.00.

William M. Gooden, Hendersonville, NC, for the alleged violation(s) of engaging in the business of a pesticide applicator

without a license and applying pesticides without a license. Mr. Gooden agreed to pay a monetary penalty of \$600.00.

Malcolm R. Wilson, Clinton, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and for making a pesticide application or recommendation not in accordance with the registered label. Mr. Wilson agreed to pay a monetary penalty of \$400.00.

Dalton B. McLamb, Benson, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and for failing to provide workers with pesticide safety training and decontamination supplies as required by the Worker Protection Standard. Mr. McLamb agreed to pay a monetary penalty of \$50.00.

George J. Whaley, Grifton, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and for applying pesticides under conditions that drift from pesticide(s) particles or vapors result in adverse effect. Mr. Whaley agreed to pay a monetary penalty of \$750.00.

James D. Strickland, Four Oaks, NC, for the alleged violation(s) of improperly storing a pesticide(s) or a pesticide container(s) in a manner as to cause injury to humans, vegetation, crops, livestock, or wildlife. Mr. Strickland agreed to pay a monetary penalty of \$700.00.

Edwin C. Crawford, Ayden, NC, for the alleged violation(s) of providing or making available a restricted use pesticide to a non-certified private applicator. Mr. Crawford agreed to pay a monetary penalty of \$750.00.

Eleanor W. Spain, Greenville, NC, for the alleged violation(s) of providing or making available a restricted use pesticide to a non-certified private applicator. Ms. Spain agreed to pay a monetary penalty of \$750.00.

Continued on page 11

The DEET Goes On

By Kay Harris, Worker Protection Specialist

We've heard it all, from wearing dryer sheets, to burning old rags to scare away "skeeters." What really works? Experts agree that if you really want to repel mosquitoes, DEET (N,N-diethyl-3-methylbenzamide) is the product of choice. DEET-containing insect repellents are broad-spectrum repellents, meaning that they are effective against mosquitoes, biting flies, chiggers, fleas and ticks. Twenty years of testing more than 20,000 other compounds have not resulted in another chemical product with the duration of protection provided by DEET. Additionally, DEET has had a good safety record during the more than 40 years of use by millions of people worldwide. The U.S. Environmental Protection Agency (EPA) estimates that more than 38% of the U.S. population uses DEET-based insect repellents each year.

DEET is available in concentrations ranging from 5% to 100% and in multiple formulations such as lotions, creams, gels, aerosols, pump sprays, and impregnated towelettes. For casual use, a high concentration is not needed; products with 10% to 35% DEET will provide adequate protection. The American Academy of Pediatrics recommends that repellents containing no more than 10% DEET be used on children. Products with concentrations of more than 50% are probably best reserved for use in areas where insect biting pressure is intense and when high temperatures and humidity cause rapid loss of the repellent from the skin surface.

As with any pesticide, always *read the label carefully* before applying an insect repellent. Follow all safety precautions listed on the product label. In addition, EPA recommends the following precautions whenever using DEET-containing insect repellents:

- Apply repellents only to exposed skin and/or clothing. Do not use under clothing.
- Never use repellents over cuts, wounds, or irritated skin.
- Do not apply to eyes and mouth, and apply sparingly around ears. Do not spray directly onto face; spray on hands first and then apply to face.
- Do not allow children to handle the products, and do not apply to children's hands. When using on children, apply to your own hands and then put it on the child.
- Do not spray in enclosed areas. Avoid breathing a repellent spray.
- Use just enough repellent to cover exposed skin and/or clothing.
- After returning indoors, wash treated skin with soap and water.

For information on mosquito control in your garden and around your home, contact your local Cooperative Extension Service, or visit EPA's website (www.epa.gov/pesticides/factsheets/skeeters.htm). ■

How much do you know about mosquitoes? Here are a few interesting mosquito facts.

1. Unhatched mosquito eggs can often withstand weeks to months of being dry until conditions favorable for hatching occur.
2. Mosquitoes use sight, smell, and heat to locate a host. *Movement* and wearing *dark-colored clothing* can initiate their tracking system.
3. Carbon dioxide, released mainly from breath but also from skin, can be detected by a mosquito at distances of up to approximately 118 feet.
4. Floral fragrances from perfumes, soaps, lotions and hair-care products also attract mosquitoes.
5. Adults are more likely to be bitten than children are. Men are bitten more readily than women are.



Remember. Always inform your employees before you spray...It's the Law!

Agricultural employers are required by the Worker Protection Standard to inform their employees of areas to be treated or where pesticides have been recently applied. "Workers must be notified of the application by warning them orally or by posting warning signs at the entrances to the treated areas." Notification requirements are found on the pesticide label under the heading Agricultural Use Requirements. ■

**Remember to
"Spray It Safe."**

Pet Groomer Sees Avoidable Risks

By Patricia Johnson, North Carolina licensed pesticide applicator

I'm very thankful to have a pesticide applicator's license. Without the pesticide safety education that I have received through the licensing process, I may never have understood how to prevent harm from happening to myself, other people, the pets that I care for, or the environment. I would like to carry you on a trip to my grooming and boarding kennel. The stories that I'm about to tell you may alert you to some potential problems that you may never have considered. Maybe you will come to agree with me that a pesticide license is a very valuable business credential to have.

Case 1

A veterinarian called to ask me if I could identify a Boston Terrier that he had found. As I walked around the kennel side, an unlicensed vet technician was flea dipping a large dog. She had no gloves, protective apron or goggles on. When I asked why she didn't protect herself from the organophosphate dip, her reply was, "I do this all the time and don't need protection; besides, the gloves feel strange, it's too much trouble to find an apron and we don't have anything to protect my eyes. Don't worry about me; just go see if you know who owns the dog." Why is it all right for a technician at a veterinary office not to be properly trained and licensed as a pesticide applicator, but the same situation would not be tolerated at a grooming shop?

Case 2

A man came to my shop with a matted dog to groom. The first thing I asked was "What kind of flea control do you use on your pet?" His reply was Frontline*. As I removed the dog's collar, there was a strange tag hanging from it. When I asked what it was, he said, "That's a cattle pesticide tag. I only used half of it. My veterinarian gave Buster a rabies shot last week, didn't say anything about not using the cattle tag and sold me some Frontline. Is anything wrong?" I asked the man how the dog had been feeling. He told me not too good, but the dog was getting old. I told him that the mixture of pesticides was making his pet sick, and I advised him to throw away the cattle tag. Since the man couldn't afford to have the dog groomed and go back to the veterinarian, I called the veterinarian myself and was told to bath the dog in strong shampoo. I was also asked to tell the man not to use anything on the dog for a month and, if the dog didn't improve, to come back and see the veterinarian. If someone in the veterinarian's office had had a pesticide license, I believe that this problem would not have happened and the dog would not have had to suffer.

Case 3

A lady entered the grooming shop with her dog and a four-year-old grandchild. The child was hugging the dog. She told her grandmother that her eyes were burning. I looked at the child. Her hands were holding on to the dog's flea collar. I showed the lady an article about children being poisoned by handling dog flea collars and by hugging pets that have just been flea dipped. The lady had just put the flea collar on the dog so the chemicals were at full strength. I put gloves on and

took the collar off. We washed the child's face and hands and put eye drops in her eyes. I later found out that the lady was using Frontline* in addition to the dog collar. (No one at her veterinarian's office had told her that she shouldn't use both products at the same time.) The child might have experienced a similar type of reaction if the grandmother had just put Frontline* on her dog and then allowed her grandchild to sleep with the treated dog.

Case 4

When the dog pound had a problem with pets getting loose stools several years ago, the manager asked me why. (No one at the dog pound had a pesticide applicator's license.) After asking questions, I discovered the problem. They were washing the runs with water and then putting down a strong disinfectant. Since the disinfectant's label made claims to kill certain germs, this product was a pesticide and caution needed to be exercised. I advised the manager to disinfect first and then rinse with water.

Case 5

Last month, a young lawn care worker came to pick up a sixteen-year-old white poodle for his boss. He appeared at my door in a short sleeved shirt and shorts, and he was covered with white powder. He even had powder in his hair and on his face. To my horror, it was Sevin dust*. According to the worker, the boss had never told him about what personal precautions he should take when applying this pesticide. I asked the young man if he had another shirt in the truck because I couldn't give him the old dog that I had just applied Frontline* to while he was still covered with the insecticidal dust. I sent the young man to the large dog shower for a bath and change of clothes. The front seat of the truck was washed, and we put a clean towel down for the old dog to lie on. The young worker was very happy to know someone cared about him and promised to take my advice when using chemicals.

Most of the above situations could have been avoided if the applicator had been more knowledgeable about pesticide safety. I feel that if you are in the business that uses pesticides of any kind, then there is a moral obligation to educate your clientele on the health and environmental hazards associated with pesticides. I feel it doesn't matter if you are applying a dip on a pet, putting a disinfectant in a dog run, spraying a grass killer, or selling pesticide products, you need to be knowledgeable about pesticides. Getting a pesticide license helps you learn about pesticide safety and, in this way, you are better prepared to educate your workers and clientele about the risks associated with pesticide use. To maintain your pesticide license, you are also obligated to attend pesticide continuing education classes that keep you up-to-date regarding pesticide safety. I am proud to display my pesticide applicator's license in my place of business. I believe it lets my clients know that I am a dedicated professional who is concerned about their safety and that of their pets. ■

*** Disclaimer: Use of product names does not imply endorsement by NCDA&CS nor criticism of similar ones not mentioned.**

NCPB Actions (continued)

Continued from pg. 8

James C. Whitehurst, III, Greenville, NC, for the alleged violation(s) of providing or making available a restricted use pesticide to a non-certified private applicator. Mr. Whitehurst agreed to pay a monetary penalty of \$750.00.

Michael N. Sears, Chapel Hill, NC, for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling; for failing to give workers a notice of application; for failing to provide workers specific information about pesticide applications; for failing to provide workers pesticide safety training and for failing to assure that the pesticide handler was knowledgeable of the labeling and site specific information as required by the Worker Protection Standard. Mr. Sears agreed to pay a monetary penalty of \$2,400.00.

James D. Lancaster, Jr., Wilson, NC, for the alleged violation(s) of providing or making available a restricted use pesticide to a non-certified private applicator. Mr. Lancaster agreed to pay a monetary penalty of \$700.00. ■

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

Agricultural Health Study

Continued from pg. 2

The Agricultural Health Study offers scientists an opportunity to learn more about other health conditions that are of interest to farmers and to the general public. For example, researchers are working within the Agricultural Health Study to conduct smaller, more specialized studies exploring asthma, Parkinson's disease, retinal degeneration (a leading cause of blindness in adults), and other conditions.

With the increasing interest in good health, people want to know, "What promotes good health?" and "What is the health message from this research?" To this end, study results are being incorporated into educational materials, health programs, and most importantly – are being sent to participants.

"The study will provide information that agricultural workers can use in making decisions about their health and the health of their families," according to Dr. Michael Alavanja, the National Cancer Institute scientist who directs the Agricultural Health Study. The Agricultural Health Study is conducted in North Carolina by the Durham office of Battelle/Centers for Public Health Research and Evaluation. ■



For more information on the Agricultural Health Study visit the project's website at www.aghealth.org or call 1-800-424-7883

What's New on the Pesticide Section Web Site

By Laura Stover, Processing Asst. IV

New Address

For years the Pesticide Section has proudly held the same web address, but many users found this address hard to say and also long to type! So, for the ease of our users, we have shortened and simplified the address of our home page to: <http://www.ncagr.com/pesticide>.

Online Renewal Applications

After great anticipation, now there is online access to pesticide certification and license renewal forms. For those of you who have not yet renewed your pesticide certification or license this year, you can download and print your application from our website:

<http://ncagr.com/aspzine/fooddrug/Recert/RTsearch.asp>

We are constantly adding and improving pages on our web site, and we would really like to hear what you think. Please send your helpful ideas and comments to: laura.stover@ncmail.net. ■

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, 1090 Mail Service Center, Raleigh, NC 27699-1090.
Phone (919) 733-3556

PRIVATE APPLICATOR RECERTIFICATION CLASSES

CONTACT: Pesticide Section Homepage www.ncagr.com/pesticide

COMMERCIAL APPLICATOR AND DEALER RECERTIFICATION CLASSES

CONTACT: Pesticide Section Homepage www.ncagr.com/pesticide

PESTICIDE CONTAINER RECYCLING

CONTACT: Henry Wade, Pesticide Section, NCDA&CS, 1090 Mail Service Center, Raleigh, NC 27699-1090.
Phone (919) 733-3556

PESTICIDE WASTE DISPOSAL

CONTACT: Derrick Bell, Food and Drug Protection Division, NCDA&CS, 1090 Mail Service Center, Raleigh, NC 27699-1090, Phone (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
1090 Mail Service Center
Raleigh, NC 27699-1090

