



Pesticide Applicator Report



*a Publication of the Vermont Agency of Agriculture, Food & Markets
For Vermont's Pesticide Applicators*

Volume 10, Issue 1

June 2008

In This Issue:

News from the Agency.....1

- ❖ NPIC is Now Multi-lingual.....1
- ❖ EPA Issues One-Year Registration for Soil Fumigant Iodomethane....2
- ❖ History Lesson.....2
- ❖ EPA Orders Scotts to Stop Selling Certain Pesticides.....3
- ❖ 2008 Waste Pesticide Collection Schedule.....4
- ❖ Purple Traps in VT.....4

News from the UVM Extension Service.....5

- ❖ Vermont Growers Welcome Dr. Yolanda Chen.....5
- ❖ Pesticides and Pets.....5
- ❖ Long Term Pesticide Exposure May Increase Risk of Diabetes....7

Home Study Quiz 1 – Pesticides and Pets.....9

Home Study Quiz 2 – The Vermont Cross-(Contamination) Word Puzzle.....11

► News from the Agency

NPIC is Now Multi-lingual

The National Pesticide Information Center (NPIC) at Oregon State University recently entered into a contract with a company that provides over-the-phone interpretation service 24/7 in over 170 languages!

This company, Language Line Services, Inc. is often utilized by poison control centers with staff trained in medical and scientific terminology. This service also provides ‘language identification specialists’ that can help when a caller speaks a language that is not readily identifiable. Specialists have already utilized the service to answer questions in Spanish, Russian, Mandarin and Farsi! NPIC specialists are now capable of communicating science-based, objective information in a variety of languages in real time. This will enable callers to make informed decisions about:

- the technical/chemical information on labels
- exposure and risk
- safe use practices
- the signs and symptoms of pesticide poisoning
- pesticide regulatory issues

NPIC specialists can also help people find assistance with:

- emergency treatment for humans and animals
- pesticide cleanup and disposal
- laboratory analyses
- pesticide incident investigation

Free brochures about NPIC are available in English and Spanish. Call 1-800-858-7378 or e-mail us at npic@ace.orst.edu. Please visit our website at www.npic.orst.edu

EPA Issues One-Year Registration for Soil Fumigant Iodomethane

EPA has approved a one-year registration of iodomethane (methyl iodide) under highly restrictive provisions governing its use. Iodomethane can serve as an alternative to the ozone-depleting pesticide methyl bromide.

The risk assessment process for iodomethane has been one of the most thorough analyses ever conducted on a new pesticide. It has incorporated state-of-the-art methods and extensive chemical-specific toxicology and exposure data. The agency's assessment carefully evaluated the potential for cancer and special sensitivities to the most vulnerable populations. The agency also paid particular attention to potential exposures of those who live, work, or spend time in areas near fields where iodomethane might be used.

The risk-assessment techniques, protocols governing generation of toxicology studies, and exposure evaluation methods used to support the evaluation of iodomethane have been peer-reviewed by agency scientists, the independent Scientific Advisory Panel or both. By using a thorough evaluation process the agency concluded that there are adequate safety margins and the registration of iodomethane does not pose significant risks.

On September 25, EPA received a letter signed by 54 scientists who oppose the registration of iodomethane as a soil fumigant, citing potential human health and environmental concerns, and requested additional peer review. EPA has discussed our assessment with some of the signatories and sent a letter to inform the scientists of the rigorous science used to support EPA's decision.

Iodomethane can be used as a pre-plant soil fumigant to control plant pathogens, nematodes, insects, and weeds on strawberries, tomatoes, peppers, ornamentals, turf, trees, and vines. More information on

iodomethane is available on EPA's Web site at http://www.epa.gov/pesticides/factsheets/iodomethane_fs.htm

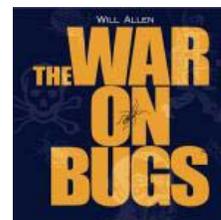


History Lesson

"The War on Bugs"

By Will Allen

Author Q & A



Many people question the safety of their food and the exposure of the food supply to toxic pesticides and fertilizers. But Will Allen – founder of the Sustainable Cotton Project, organic farmer, and author of the new book, *The War on Bugs* – takes it one step further. Allen examines the historical connection between advertising and agriculture and how toxic chemicals were marketed and sold to farmers, seeping into the American ethos as safe, effective, and necessary.

Allen, who lives and writes in East Thetford, Vermont, recently shared his personal story with Chelsea Green's Brianne Goodspeed.

For the rest of this author Q & A and more information on this book, go to <http://www.chelseagreen.com/bookstore/item/waronbugs#>

EPA Orders Scotts to Stop Selling Certain Pesticides

U. S. Environmental Protection Agency Region 5 issued a "stop sale, use or removal" order against Scotts Miracle Gro Co. and three affiliates, all of Marysville, Ohio, for illegal, unregistered and misbranded pesticides. EPA will also issue a stop sale order to Scotts Lawn Care Service.

Scotts has agreed to recall these products from all retail locations across the United States and to set up a process for consumers to safely return any unregistered products they may have purchased.

If you have questions, please contact the National Pesticide Information Center at 800-858-7378 (6:30 a.m. - 4:30 p.m., Pacific Daylight Time, including weekends).

A fact sheet and regularly updated information are posted online at <http://www.epa.gov/reg5rcra/ptb/news/>.

At this time the risks, if any, posed by these unregistered products are unknown. EPA and its state partner Ohio Department of Agriculture are conducting a laboratory analysis of these products. Updated information will be posted online when it becomes available. Until EPA has more information about the contents of these products, consumers are advised not to use these products and to store them in a safe, cool and dry place such as a garage or utility shed. Do not dispose of them down the drain, in the garbage or at a community disposal site.

EPA ordered the companies, collectively an international producer and distributor of lawn care products, to immediately stop selling and distributing two products which can be identified by the invalid "EPA registration number" listed on the package.

Invalid registration number 62355-4 is marketed under names including "Garden

Weed Preventer + Plant Food" and "Miracle Gro Shake 'n' Feed All Purpose Plant Food Plus Weed Preventer." Invalid registration number 538-304 is used primarily by Scotts Lawn Service, a lawn care company. It is marketed under names including "Scotts Lawn Service Fertilizer with .28% Halts," "Scotts Lawn Service Fertilizer 0-0-7 Plus .28% Halts Pro," "Scotts Lawn Service Fertilizer 14-2-5 Plus .28% Halts Pro" and "Scotts Lawn Service Fertilizer 22-0-8 Plus .28% Halts Pro."

In an effort to make sure these products are immediately removed from the marketplace, EPA will also issue stop sale orders to major retailers that carry these products.

Under the Federal Insecticide, Fungicide and Rodenticide Act, all pesticides must be submitted to EPA for review, evaluation and registration to ensure that they do not pose an unreasonable risk to human health or the environment. EPA's review and registration process is internationally recognized. Pesticide products that have not undergone EPA review may pose risks to human health and the environment.

"A manufacturer such as Scotts cannot ignore the important legal requirement of registering its pesticides," said Region 5 Administrator Mary A. Gade. "This is a serious violation of EPA's system for protecting people and the environment from the potential harmful effects of pesticides. EPA will fully investigate this violation and take appropriate actions. We are committed to keeping the public informed about any health consequences and providing information to assure the safe recall of these products as soon as possible."

For more information on pesticides, go to <http://www.epa.gov/reg5rcra/ptb/pest>.

Don't forget to do the "Vermont Pesticide Cross-(Contamination) Word Puzzle" on page 11 and earn one (1) pesticide recertification credit!

2008 Waste Pesticide and other Hazardous Waste Collection Schedule for Farmers, Homeowners and Businesses

THESE COLLECTIONS ARE FREE OF CHARGE

Pesticide collections are free, non-regulatory events where homeowners, farmers and businesses can bring in old, unwanted, out-of-date or unusable pesticides, and drop them off for safe disposal. Call your Solid Waste District for upcoming events at the following numbers or visit this website for a complete schedule.

<http://www.vermontagriculture.com/ARMES/wastepest.htm>

Addison County, Don Maglienti..... 388-2333
Central Vermont, Liz Helrich.....229-9383
Chittenden County, Jen Holliday
.....residents 863-0480
.....businesses 865-4663
Greater Upper Valley, John Hurd.....296-3688
Lamoille, Joyce Majors.....888-7317
Mad River, John Malter.....244-7373
NE Kingdom, Corey Raymond.....626-3572
Northwest Vermont, Barry Domina.....524-5986
Rutland County, Dean Wilson.....775-7209
Windsor/Windham, Mary O'Brien.....674-9235
St. Johnsbury, John Malter.....244-7373

Farmers living in towns which do not belong to any district may bring waste pesticides to any collection.



Purple Traps Placed Around Vermont to Survey for Emerald Ash Borer

Don't be surprised if you see large purple boxes hanging from trees in Vermont this summer. These "boxes" are serving a very important purpose – to survey for the invasive pest Emerald Ash Borer (EAB), which has been attacking and killing ash trees in the Midwest since 2002. To date, Vermont has been free of EAB.

As part of a national survey in conjunction with USDA, the Vermont Agency of Agriculture has begun placing the triangular purple insect traps that are about two feet tall, in and near ash trees in campgrounds and along roadsides throughout the state. They are designed to catch the destructive EAB, if it is present.

"The traps being placed around Vermont will not attract the insect (to this state), but will help us discover if we have an infestation in the state early on and to be able to address it immediately," said Roger Allbee, Secretary of Agriculture. "The ash tree is a very important natural resource in our state and we want to protect it from this invasive insect."

EAB is an invasive species of wood-boring beetle, native to eastern Asia that targets ash trees in North America. It was first detected in July of 2002 in southeastern Michigan and has since been found in Ohio, Indiana, Maryland, Illinois, Pennsylvania, West Virginia and in southwestern Ontario. EAB has been responsible for the death and decline of more than 25 million ash trees in the United States.

"These insects, as well as many other invasive pests, can be transported unknowingly in firewood brought into the state," commented Tim Schmalz, plant pathologist for the agency of agriculture. "That's why it is so important to use local sources for firewood when you travel. For example, the introduction of EAB in Pennsylvania, West Virginia and parts of northern Michigan are believed to be the result of moving firewood from infested areas."

The Agency of Agriculture began placing the traps around Vermont in early June 2008. The traps will remain in place until September 1, 2008 and will be checked regularly. For more information on the traps, EAB or other invasive insects

www.vermontagriculture.com

► News from UVM Extension Service

Vermont Growers Welcome Dr. Yolanda Chen

Yolanda Chen joined the Department of Plant and Soil Sciences at the University of Vermont in the beginning of April. Her research background is in insect ecology and population genetics. She did her Ph.D. and Postdoctoral work at the University of California at Berkeley. From there, she moved overseas to the Philippines where she worked at the International Rice Research Institute as an entomologist for the last four years. Her research interests involve contrasting agricultural systems with natural systems to determine how agricultural practices have affected natural biological control. The overall goal of her research program is to determine how ecological and evolutionary information can be used to improve sustainable pest management. She is very interested in working with Vermont vegetable and berry growers to understand how the landscape can influence pest suppression, and how on-farm cropping diversity can be used to enhance conservation biological control. Her email address is Yolanda.Chen@uvm.edu.

Pesticides and Pets

Ann Hazelrigg

Pesticide Education and Safety Program, UVM

According to a 2007-2008 National Pet Owners Survey, 63% of US households own a pet, which equates to 71.1 million homes. In 2008 these households spent an impressive 43.4 billion dollars on pet industry expenditures. We tend to pamper our pets and treat them as members of our families.

Since our pets rely on us for their protection, we need to be very careful when storing and applying pesticides in and around our homes. To help keep our animals safe, the ASPCA Animal Poison Control Center is a good resource available to both pet owners and veterinarians. The Center was established in 1978 and receives close to 700 calls each day from its emergency hotline at (888) 426-4435. The Animal Poison Control Center is the only 24-hour, 365-day animal-dedicated poison control center in North America.

According to the ASPCA Animal Poison Control Center, of the 150,000 calls they received in 2007, 40,000 of those were related to poisonings by “insect control products” and 7,000 calls for “household cleaners.” In 2007, 72% of the poison calls at the Center were for dogs with cats accounting for 11% of the calls. The top 5 breeds of dogs involved in poisonings were Labrador retriever, Golden retriever, Chihuahua, Yorkshire terrier and German Shepard.

Although many pesticide products are beneficial, poor planning or improper use of a product can be toxic to our pets. Like humans, pets are exposed to pesticides through 3 routes; they breathe in the product, absorb it through their skin or they ingest it. Due to grooming habits, cats are more susceptible to chemicals than dogs.

Inside the House

Be sure to remove pets from any areas you are planning to treat with pesticides. Remove pet’s water and feeding bowls, bones, or play toys from the treated area until the pesticide applied is completely dry and the area is well-ventilated. Always read the label for more specific instructions on how long to keep the pets out of the house or treated area. Cover fish tanks to prevent liquid vapors from entering the tank. If you are using a fogger turn off the fish pumps. Place baits in areas where pets can’t reach them. Store all baits, pesticides and household cleaning products where pets can’t get to them.

Outdoors

Never apply pesticides if pets are in the yard. Remove pet's water and feeding bowls, bones, play toys, bird baths or bird feeders from the treated area until the pesticide applied is completely dry. Don't allow pets in sprayed areas until the pesticide is completely dried. Granular products may have specific instructions for watering the granules in and keeping pets off the treated area for 24 hours or longer. Read the label to find out any specific information about re-entry times. Don't forget about drift; spraying products on a windy day can carry the product to your neighbor's yard or other off target areas.

Body Applications

Use care when applying pesticides directly to pets. Follow the label carefully and be sure to use the correct amount of product for the size and type of animal treated. Most topical formulations are applied according to the animal's weight. Read the label! Be aware that over-treating animals can poison them. Products listed for "dogs only" should never be used on cats. Products designed for use on adults animals should never be used on kittens or puppies unless the label specifically states that the product may be used on younger animals.

Wear protective clothing as listed on the label when applying any pesticides to minimize your exposure. Keep children away from pets for the specific waiting period on the label.

Signs of Poisoning

Sometimes even careful use of product can cause harm to a sensitive, ill or injured animal. If the animal seems listless, has increased salivation or drooling, stumbles when it walks or has muscle tremors or convulsions, contact a veterinarian or the APSCA Animal Poison Control Center. A consultation fee of \$60.00 per case may apply which can be charged to a credit card.

Be prepared

Maintain your pet's overall health by regular visits to a veterinarian. Know your veterinarian's procedures for emergency situations. Keep emergency telephone numbers accessible. Put together a pet safety kit as recommended by the ASPCA (to see what should go in the kit go to <http://www.aspca.org/> and go to the Animal Poison Control link on the left side of webpage.) If exposure occurs, don't panic. Be sure to have the product container available for needed emergency information.

Adapted from NPIC, *Pets and Pesticide Use and Pesticide Program Fact Sheet*, Arkansas.

Complete the quiz on page 9 for one (1) recertification credit...



Daisy, the pet pig, 150 lbs of love.

Have you checked your certificate lately?

Please remember, commercial and non-commercial) applicators need to renew their certificate yearly, so check your certificate expiration date (not categories) and let me know what you find!

-Matt

Long Term Pesticide Exposure May Increase Risk of Diabetes

Licensed pesticide applicators that used chlorinated pesticides on more than 100 days in their lifetime were at greater risk of diabetes, according to researchers from the National Institutes of Health (NIH). The associations between specific pesticides and incident diabetes ranged from a 20 percent to a 200 percent increase in risk, said the scientists with the NIH's National Institute of Environmental Health Sciences (NIEHS) and the National Cancer Institute (NCI).

"The results suggest that pesticides may be a contributing factor for diabetes along with known risk factors such as obesity, lack of exercise and having a family history of diabetes," said Dale Sandler, Ph.D., chief of the Epidemiology Branch at the NIEHS and co-author on the paper. "Although the amount of diabetes explained by pesticides is small, these new findings may extend beyond the pesticide applicators in the study," Sandler said. Some of the pesticides used by these workers are used by the general population, though the strength and formulation may vary. Other insecticides in this study are no longer available on the market, however, these chemicals persist in the environment and measurable levels may still be detectable in the general population and in food products. For example, chlordane, which was used to treat homes for termites, has not been used since 1988, but can remain in treated homes for many decades. More than half of those studied in the National Health and Nutrition Examination Survey in 1999-2002 had measurable evidence of chlordane exposure. "This is not cause for alarm," added Sandler "since there is no evidence of health effects at such very low levels of exposure."

Overall, pesticide applicators in the highest category of lifetime days of use of any pesticide had a small increase in risk for diabetes (17 percent) compared with those in the lowest pesticide use category (0-64 lifetime days). New cases of diabetes were reported by 3.4

percent of those in the lowest pesticide use category compared with 4.6 percent of those in the highest category. Risks were greater when users of specific pesticides were compared with applicators who never applied that chemical. For example, the strongest relationship was found for a chemical called trichlorfon, with an 85 percent increase in risk for frequent and infrequent users and nearly a 250 percent increase for those who used it more than 10 times. In this group, 8.5 percent reported a new diagnosis of diabetes compared with 3.4 percent of those who never used this chemical. Trichlorfon is an organophosphate insecticide classified as a general-use pesticide that is moderately toxic. Previously used to control cockroaches, crickets, bedbugs, fleas, flies and ticks, it is currently used mostly in turf applications, such as maintaining golf courses.

"This is one of the largest studies looking at the potential effects of pesticides on diabetes incidence in adults," said Freya Kamel, Ph.D., a researcher in the intramural program at NIEHS and co-author in the paper appearing in the May issue of the "American Journal of Epidemiology." "It clearly shows that cumulative lifetime exposure is important and not just recent exposure," said Kamel. Previous cross-sectional studies have used serum samples to show an association between diabetes and some pesticides.

Diabetes occurs when the body fails to produce enough insulin to regulate blood sugar levels or when tissues stop responding to insulin. Nearly 21 million Americans have diabetes. The cause of diabetes continues to be a mystery, although genetics and environmental factors such as obesity and lack of exercise appear to play roles.

To conduct the study, the researchers analyzed data from more than 30,000 licensed pesticide applicators participating in the Agricultural Health Study, a prospective study following the health history of thousands of pesticide applicators and their spouses in North

Carolina and Iowa. The 31,787 applicators in this study included those who completed an enrollment survey about lifetime exposure levels, were free of diabetes at enrollment, and updated their medical records during a five-year follow-up phone interview. Among these, 1,171 reported a diagnosis of diabetes in the follow-up interview. The majority of the study participants were non-Hispanic white men. Researchers compared the pesticide use and other potential risk factors reported by the 1,171 applicators who developed diabetes since enrolling in the study to those who did not develop diabetes. Among the 50 different pesticides the researchers looked at, they found seven specific pesticides -- aldrin, chlordane, heptachlor, dichlorvos, trichlorfon, alachlor and cynazine -- that increased the likelihood of diabetes among study participants who had ever been exposed to any of these pesticides, and an even greater risk as cumulative days of lifetime exposure increased.

All seven pesticides are chlorinated compounds, including two herbicides, three organochlorine insecticides and two organophosphate pesticides.

"The fact that all seven of these pesticides are chlorinated provides us with an important clue for further research," said Kamel. Previous studies found that organochlorine insecticides such as chlordane were associated with diabetes or insulin levels. The new study shows that other types of chlorinated pesticides, including some organophosphate insecticides and herbicides, are also associated with diabetes. The researchers also found that study participants who reported mixing herbicides in the military had increased odds of diabetes compared to non-military participants.

The Agricultural Health Study (AHS) <<http://aghealth.nci.nih.gov/>> is a prospective study of licensed pesticide applicators from North Carolina and Iowa recruited in 1993-1997 at the time of license renewal. The cohort includes 4,916 commercial applicators from

Iowa and 52,395 private applicators, mostly farmers, from both states. More than 75 percent or 32,347 spouses of married private applicators also enrolled in the cohort. The study is a collaboration of the National Institute of Environmental Health Sciences (NIEHS), the National Cancer Institute (NCI), the Environmental Protection Agency (EPA) and the National Institute for Occupational Safety and Health (NIOSH).

For more information about cancer, please visit the NCI Web site at <<http://www.cancer.gov/>>, or call NCI's Cancer Information Service at 1-800-4-CANCER (1-800-422-6237).

The primary mission of the National Institute of Environmental Health Sciences <<http://www.niehs.nih.gov/>> (NIEHS), one of 27 Institutes and Centers at the National Institutes of Health, is to reduce the burden of human illness and disability by understanding how the environment influences the development and progression of human disease. For additional information, visit the NIEHS Web site at <<http://www.niehs.nih.gov/>>.

The National Institutes of Health (NIH) -- The Nation's Medical Research Agency -- is a component of the U.S. Department of Health and Human Services. It is the primary federal agency for conducting and supporting basic, clinical and translational medical research, and it investigates the causes, treatments, and cures for both common and rare diseases. For more information about NIH and its programs, visit <www.nih.gov/>.

REFERENCE:

Montgomery MP, Kamel F, Saldana TM, Alavanja MCR, Sandler DP. Incident diabetes and pesticide exposure among licensed pesticide applicators: Agricultural Health Study 1993 - 2003, "American Journal of Epidemiology," 2008;167:1235-46.

Home Study Quiz 1 – Pesticides and Pets

The following set of questions refers to the article on pages 6 and 7. Fill out the information on the back of the completed quiz and mail it to the Vermont Agency of Agriculture to receive (1) **one pesticide recertification credit**.

1. What are the 3 ways pesticides can enter pets?
2. Why should you avoid spraying outdoor pesticides on windy days?
3. What pet items should you remove if using pesticides indoors?
4. How long should you wait to allow the pet back in the area treated with a pesticide?
5. T____F____ Products designed for adult cats are usually good for kittens.
6. Name 3 symptoms of pesticide poisoning in pets.
7. What special precautions should be used with granular pesticide products?
8. What 2 resources could you call if you suspect poisoning in your pet?
9. What precautions should you take with children after using pesticides on your pet?
10. What precautions should you take with pets when placing baits in your home?

Fill out the following information and mail the completed quiz to the Vermont Agency of Agriculture to receive one (1) pesticide recertification credit.

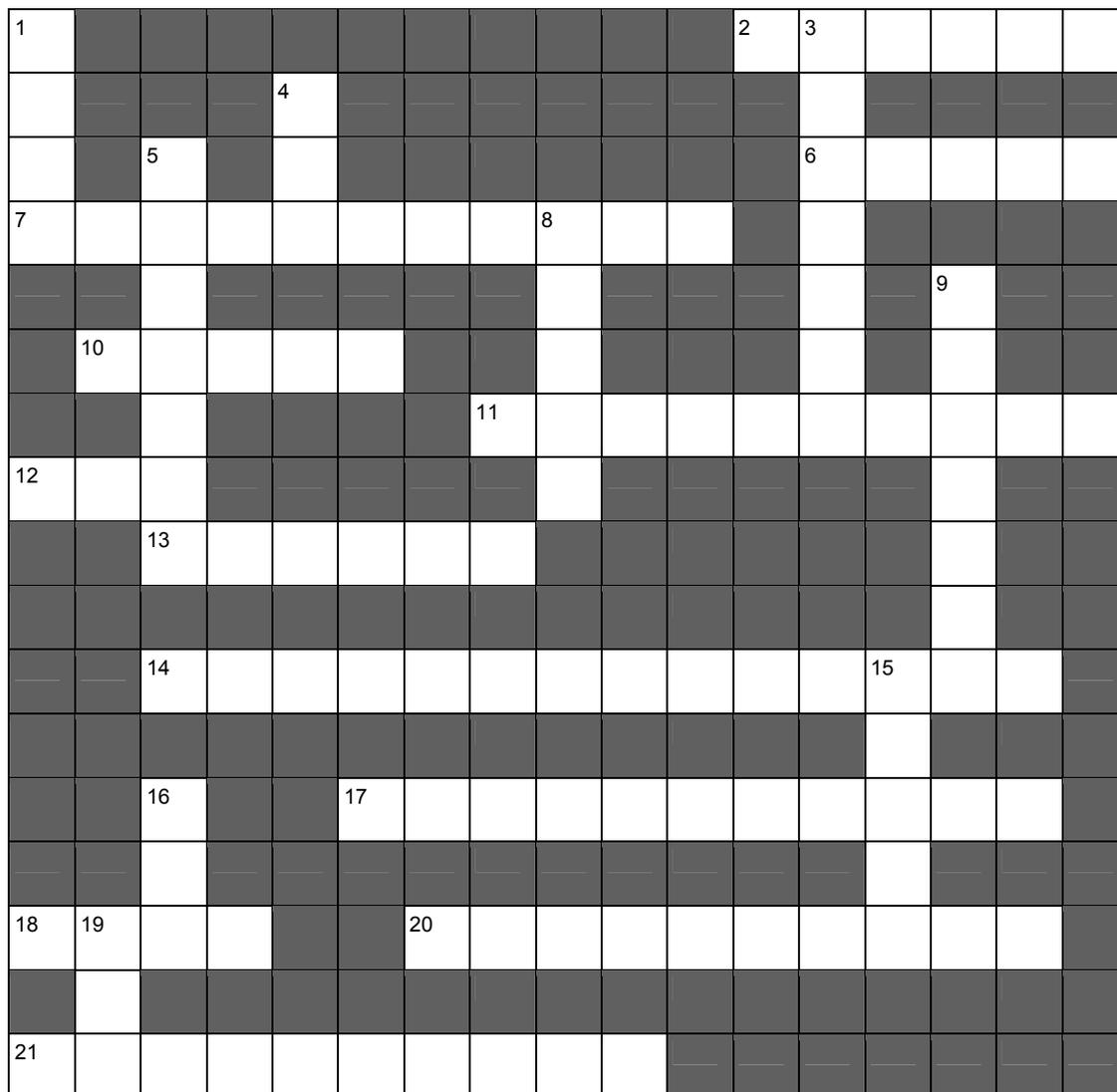
Name:		
Certificate #:		Please check: <input type="checkbox"/> Commercial <input type="checkbox"/> Non-Commercial <input type="checkbox"/> Government <input type="checkbox"/> Private
Street Address:		
City/State/Zip		
Company/Farm:		
Signature:		Date:

Mail to:

**Vermont Agency of Agriculture
Attn: Matthew Wood
116 State Street
Montpelier, VT 05620-2901**

Home Study Quiz 2 – The Vermont Pesticide Cross-(Contamination) Word Puzzle

Fill out the information on the back of the completed puzzle and mail it to the Vermont Agency of Agriculture to receive (1) **one pesticide recertification credit**. Note, must be completed and returned before the answers come out in the next issue of the *Pesticide Applicator Report* in December of 2008.



ACROSS

2. restricted-use pesticide classification in VT
6. worn when cleaning or repairing spray equipment, mixing, or loading
7. all shirts should be, when applying
10. the mother of all pesticide laws
11. type of applicator on someone else's property
12. nickname for equipment that personally protects you
13. the most common route of pesticide exposure for applicators
14. the formulation indicated by a WP in the pesticide name
17. a word denoting the "form" of a pesticide
18. nickname of the pesticide certification coordinator at the Vermont Agency of Agriculture
20. equipment worn to protect against inhalation exposure
21. type of pest management that takes a holistic approach

DOWN

1. type of exposure when pesticides enter through your mouth
3. a bad choice of material for gloves or boots
4. nickname for the standard that kicks-in when pesticides are used in an agricultural situation
5. gloves should be this, on the inside
8. the most chemical resistant material for gloves
9. type of applicator on own land producing an agricultural commodity
15. when a pesticide moves off target due to wind, rain, runoff or evaporation
16. temperature setting for laundering contaminated clothing
19. nickname of pesticide education and safety program coordinator at UVM

Pesticide Applicator Report

June 2008

Vermont Agency of Agriculture, Food & Markets
Agriculture Resource Management & Environmental Stewardship
116 State Street
Montpelier, VT 05620-2901

NONPROFIT
U.S. POSTAGE PAID
MONTPELIER, VT 05620-
2901
PERMIT No. 74

Fill out the following information and mail the completed puzzle to the Vermont Agency of Agriculture to receive one (1) pesticide recertification credit.

Name:		
Certificate #:		Please check: <input type="checkbox"/> Commercial <input type="checkbox"/> Non-Commercial <input type="checkbox"/> Government <input type="checkbox"/> Private
Street Address:		
City/State/Zip		
Company/Farm:		
Signature:		Date: