

The Pesticide Applicator Report



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News from the Agency

New Core Manual Available

Cornell University in Ithaca, NY has been the source for Vermont's Pesticide Safety Education manuals for many years, both the Core manual used by all applicators and Dealers, and all category manuals studied by commercial, non-commercial and government applicators. The Cornell Core, as I like to call it, was originally written in 1974, and they came out with a Second Edition in 1990, but it has not been updated since then. I guess they decided it was about time to rewrite it, and they have been working on this Third Edition for a couple of years now.

Now it is ready, has been reviewed by University and Government pesticide educators and private industry folks, and is being printed up in mass quantities. The old Second edition will no longer be printed or sold by Cornell and I have only a few left in stock. The new Third Edition of the Cornell Core will be available soon.

My plan for phasing in this new manual is as follows:

- If you are already certified you don't need to worry about what manual you have, and will never need to take another pesticide certification exam again as long as you keep up with your recertification credits (unless you want to add a new certification category, then you will need to take and pass that category exam).
- Those of you that already have the Second Edition of the Core will be able to study that one and take the exam based upon it up until the **end of August 2013**.

Continued →

Questions or comments regarding this newsletter?

Please contact **Matthew Wood** at the Vermont Agency of Agriculture at 802-828-3482 or email matthew.wood@state.vt.us

- The new Core manual, third Edition, will be available starting in January. There will be new core exams for private, commercial, non-commercial and government applicators based upon this new manual, most likely starting in February 2013.
- The Second Edition can still be purchased through me while supplies last, but keep in mind the old exams are only offered until the end of next August.

What is that “saying” about change? -Matt

End-of-Season Pesticide Storage

By David Robson. Used with permission from University of Illinois Pesticide Safety Education Program (PSEP)

With the end of the pesticide application season upon most of us, it's time to take stock of your, well... stock, and determine how to manage it over the winter months.

The best bet is to use up as much as possible while following the label directions. The less you have to store, the better off you'll be. If you find you're carrying over a significant quantity of pesticides year after year, it's time to review your use and adjust your orders accordingly.

Even the best planners usually have some product left at the end of the year. Below are some tips on storing pesticides, and to some extent fertilizers, until next spring.

- Be sure products are tightly sealed. Examine sacks/bags for tears and containers for leaks. If the container is damaged, place the product in a similar container with the product's label attached.
- Don't store products on bare soil, carpet or wood flooring where clean-up will be next to impossible. Store on sealed concrete, glazed tile or no-wax sheet flooring that's easy to clean and will prevent

products from seeping into the ground if leakage occurs.

- Keep products on pallets off the floor to avoid cold transfer from the ground or concrete. Pallets are easier to move. Additionally, if product does spill or leak, the damage can be more easily discerned.
- Store herbicides separately from other pesticides. This applies year-round to avoid cross-contamination and possible damage to desirable plants.
- Separate liquid products from granules and products in paper/plastic sacks from metal or glass containers. If the products have to be stored near each other, store the dry products above the liquid ones to avoid contamination if the liquid containers were to break or leak.
- Keep ALL products from freezing. The ideal temperature is 40 degrees F. Cold temperatures can break down the product, as well as cause the product to expand and break the glass, metal, or plastic container. *The label of each product will have specific storage instructions and acceptable temperature ranges for that product.*
- Store glass containers inside a metal or plastic container, though the metal or plastic container doesn't need to be sealed. The idea is to contain the product if the glass container accidentally breaks. A coffee can or commercial food tin may do the trick.
- Make sure there's significant distance from pesticides to water sources. Burst pipes can cause metal containers to rust or paper to break down. If the possibility of moisture is high, store the pesticides in heavy-duty plastic garbage sacks or trash cans. Label the sacks or cans with the product's name.
- Check products weekly during the winter for signs of leakage; make sure to have absorbent material on hand to contain any spill.

Keep reading the next article for some credit...

Are You Labeling Your Pesticide Service Containers?

By Travis Cleveland. Used with permission from University of Illinois Pesticide Safety Education Program (PSEP)

Ideally, pesticides should remain in their original labeled containers until just prior to use. However, some applicators find convenience in transferring a pesticide to a smaller and more portable container. When an applicator transfers a pesticide into a new container for the purpose of that applicator applying the pesticide, the new container is classified as a "service container." *Note, the service container is not application equipment.*

The U.S. Environmental Protection Agency does not regulate service containers or require them to be labeled. However, container requirements of OSHA and the DOT may still apply. If the repackaged product is to be sold or distributed, the new container will be subject to EPA pesticide container and repackaging regulations, label requirements, and all other pesticide-related regulations.

The requirements under these regulations are extensive and more work than a typical applicator would be willing to undertake. For this reason, the remainder of the article will focus on the use of service containers.

Many risks come with the use of the service containers. For one, the applicator is handling and risking exposure to concentrated pesticides more frequently than if he/she were solely using the original pesticide container. Transferring the pesticide to a service container also separates the pesticide from its original label.

As a result, valuable information describing the pesticide, its application instructions, and safety precautions are no longer carried with the product. In some situations, applicators could very easily lose track of and forget what pesticide is in the container, leading to hazardous and expensive waste.

How can you avoid the risks mentioned above? In

terms of best management practices, the service container should always be clearly labeled before the pesticide is transferred. Never assume you will remember to label the product at a later date or that you will remember the contents several days, weeks or months later.

At the very least, the service container should be labeled with the following information:

Service Container Label

- **Product name**
- **EPA registration number**
- **Name of active ingredient(s) and percentage(s) or end-use dilution**
- **Label's signal word: i.e., Poison, Danger, Warning, Caution**

The information above will be important to anyone who encounters the service container. They will quickly be able to identify the product, its concentration, and potential toxicity. The EPA registration number will allow anyone to look up additional information on the product, including a label.

As a reminder, all pesticide labels state, "It is a violation of Federal law to use this product in a manner inconsistent with its labeling." Therefore, a copy of the entire original label should also be easily accessible to the applicator at all times. Certainly, a copy would be best placed on the service container. The information provided in the label is critical to all stages of the application process.

The label should be reviewed before each application to help recognize changes between application sites and to achieve effective control while protecting yourself, others and the environment. Remember! Labels do change and any copies should be updated frequently.

See the quiz on page 5, based upon the last (2) articles, for a recertification credit...

Considerations for Avoiding Off Target Movement of Pesticides

By Ann Hazelrigg, Pesticide Education and Safety Program, UVM

Pesticide drift is defined as off target airborne movement of pesticides. Drift can damage or contaminate crops, cause harm to people and animals, poison bees, contaminate soil and water and can lead to litigation. Drift can be a complex problem involving a lot of factors including windy conditions, temperature inversions, too fine of a droplet size, pressure of the pump, and the chemistry of the pesticide formulation being applied. All applicators must be very aware of the conditions conducive for drift and make every effort to minimize any off target movement of pesticides.

Droplet size

One of the most effective ways to minimize drift is to avoid fine spray droplets. The goal of every pesticide applicator should be to apply the largest droplet possible that will deliver good spray coverage and good control. Pesticide labels will specify the droplet size to use for the application. Selecting the proper nozzle will deliver the correct droplet size, but also selecting the lowest possible pressure will also minimize drift concerns. For boom sprayers, setting the boom height as close to the target as possible, based on the nozzles you are using, will also minimize off target spray. Nozzles with wider spray angles allow for lower boom heights. Of course, even if you are applying with the right nozzle, pressure and boom height, drift can still occur if weather conditions are conducive.

Weather Considerations

Spraying in windy conditions will cause sprays to move off target. As a rule of thumb, pesticides should be applied when winds are between 3 and 9 miles per hour. These conditions are often present in the early morning or late afternoon. Don't guess on wind speeds. You can purchase an inexpensive wind speed meter to take the guess work out of making a safe pesticide application. If conditions are too still, this may indicate there is a temperature inversion present. Inversions can be common in early morning when warm air forms a "cap" trapping cooler air near the earth's surface. Pesticide droplets or vapor can be carried by air movement and can move long distances under the cap formed by the inversion.

Pesticide applications should also be avoided when temperatures are high and relative humidity is low. These conditions cause drops to evaporate more quickly, forming smaller droplets and increasing the potential for moving off target.

Buffer Zones

The use of buffer zones or untreated areas around a pesticide application can also protect sensitive areas from drift. These zones are designed to catch off target spray and protect water ways, wildlife, homes and other sensitive areas. The size of the buffer zone depends on the pesticide being used and the regulations surrounding that pesticide and its application and use.

Adapted from "Managing Pesticide Drift", <http://edis.ifas.ufl.edu/pi232>

See the quiz on page 7 for a credit...

Home Study Quiz 1- “End-of-Season Storage” and “Service Container Labeling”

The following questions refer to the articles on pages 2 and 3. Fill out the information on the back of this completed quiz and mail it to the Vermont Agency of Agriculture to receive

(1) one pesticide recertification credit.

Circle the best answer:

1. What should you do if you find a damaged container of pesticide in your storage area?
 - A. Dispose of the product during a waste pesticide collection.
 - B. Place the product in a similar container with the label attached.
 - C. Use an approved product sealant to repair the leaky container.

2. Why store pesticides on sealed concrete, glazed tile, or no-wax sheet flooring?
 - A. So the containers won't slide easily, preventing damage and spills.
 - B. To help keep the products in the appropriate temperature range.
 - C. So that it is easy to clean and will prevent products from seeping into the ground.

3. Why store the dry products above the liquid products?
 - A. If the liquid containers were to break or leak, they would not contaminate the dry products.
 - B. It is easier to put the heavy liquid containers on the lowest shelf.
 - C. So you can inspect the dry product packaging for tears easier.

4. Why should you store pesticides that come in glass containers inside another container?
 - A. To keep the glass container warm so it won't break during the winter.
 - B. To contain the pesticide should the glass container break for some reason.
 - C. So the pesticide inspector won't see that you have pesticides in glass containers.

5. Next Article: Which one of the following is among the risks that come with the use of service containers?
 - A. The pesticide could become diluted when putting it into another container.
 - B. Transferring the pesticide to a service container separates the pesticide from its original label.
 - C. Now there is another container that needs to be triple rinsed.

6. How can you avoid the risks associated with the use of service containers?
 - A. Use a glass container so that you can see which pesticide is in the service container.
 - B. Remembering which pesticide has been put into the service container.
 - C. The service container must be clearly labeled before the pesticide is transferred.

7. At the very least, the service container should be labeled with the following information:
 - A. Product name, EPA Establishment #, % active ingredient, and the word “Poison”.
 - B. Product name, EPA Reg #, Name of active ingredient and % or dilution, and the label's signal word.
 - C. Health, flammability, reactivity, and contact

The following information is required. 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:	
Email address (optional):		

Mail to:

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

Home Study Quiz 2 – Considerations for Avoiding Off Target Movement of Pesticides

The following questions refer to the article on page 4. Fill out the information on the back of this completed quiz and mail it to the Vermont Agency of Agriculture to receive **(1) one pesticide recertification credit**.

1. What is the role of a buffer zone?
2. How are buffer zones determined?
3. What is pesticide drift?
4. How can boom height affect drift?
5. How does choice of spray nozzles affect drift?
6. What is a temperature inversion?
7. Why should you avoid applying pesticides during temperature inversions?
8. What is the range of wind speeds for safe pesticide application?
9. Why avoid spraying during high temperatures and low relative humidity?
10. How could pump pressure affect drift?

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Agriculture Resource Management Division
116 State Street
Montpelier, VT 05620-2901

The following information is required. 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:
Email address (optional):		