VTPP Quarterly

A Newsletter From Virginia Tech Pesticide Programs

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A Message From the Director

Daniel L. Frank
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Welcome to the inaugural edition of the Virginia Tech Pesticide Programs (VTPP) newsletter. This newsletter is the first of many new, exciting, and innovative programming efforts we will be developing. Each quarterly issue will keep you aware of the developments in the field of pesticide safety education and pest management. While pesticides can play an important role in pest management, applicators need to make wise decisions while keeping profitability and sustainability in mind. We at VTPP would like to reinforce core principles of safe pesticide use with many audiences and raise awareness of and encourage proper pest management practices. First and foremost, our goal is to protect human health and the environment by minimizing and managing the risks associated with the legal use of pesticides. To this end, I thank the VTPP team for their efforts and look forward to good things in the future.

Always Wear the Proper PPE When Using Pesticides

By Daniel L. Frank, Director of Pesticide Programs

The COVID-19 pandemic has led to a shortage of some personal protective equipment (PPE) regionally and throughout the nation. The critical need for disposable filtering facepiece respirators (e.g., N95) by health care professionals has resulted in few if any of these respirators or particulate filters (N, R, P, or HE) available in the marketplace. Likewise, certain gloves and protective clothing are in short supply. Many distributors are currently not accepting new orders, and back-orders have delivery dates of several weeks or even months.

The Label Is the Law

To prevent unacceptable levels of exposure, some pesticide labels require respirators and certain protective clothing when handling, mixing, loading, and/or applying a product. Individuals and companies that use pesticides may need to plan ahead to ensure that they have the proper PPE available to remain in compliance. The label is the law! No exemption or relaxation of PPE requirements has been made by the Environmental Protection Agency (the agency responsible for registering pesticides and reviewing product labels). Applicators must wear the specified PPE even though they may be risking only their own safety by not wearing it. Furthermore, individuals do not want to be an additional burden to medical workers and other emergency management personnel by not wearing the appropriate PPE.

Use Label-Specified PPE

To contain the spread of COVID-19, many people have made their own protective face coverings. Although these homemade masks may protect an individual from contracting or spreading COVID-19, they should not be used by pesticide applicators as an alternative for label specified respirators. Similarly, layering non-labeled approved gloves, footwear, or clothing is not a sufficient substitute for label-specified protective coverings.

Selecting Alternative Products and Practices

Pesticide applicators may need to select alternative products or practices if required PPE is not available. For example, if certain brand-name PPE are out of stock, look for lesser known brands. More protective half-mask and full-mask respirators can be used in place of disposable N95 respirators. Reusable chemical resistant clothing is just as effective, and may be more available, as their disposal counterparts.

If you cannot find the required PPE, use a different pesticide product that does not require that particular clothing or device. Selecting an alternative, non-chemical pest management tactic may also be an option.

Online Resources to Help Find Alternative Pesticide Products and Practices

- **Virginia PMG Series**:
vtpp.ento.vt.edu/Resources.html
Virginia Pest Management Guides (PMGs) are revised each year and contain the latest pesticide and integrated pest management recommendations. These recommendations are specific for the growing conditions and pest problems found in Virginia.

- **CDMS Label Database**:
cdms.net/Label-Database
Crop Data Management Systems (CDMS) works with key pesticide registrants, hosting their current labels and safety data sheets online.

- **Agrian**:
home.agrian.com
Agrian works with manufacturers to provide labels and other supporting documents. Their “label lookup” tool has a safety tab that lists the PPE requirements for selected pesticides without having to search the label. (The pesticide label can also be referenced.)

- **USDA Integrated Pest Management Database**:
ipmdata.ipmcenters.org
Documents include common pests by crop and various pest management options.

- **NPIC Product Research Online**:
npic.orst.edu/NPRO
National Pesticide Information Center (NPIC) provides a search engine for federally registered pesticides using multiple criteria.

Disinfectants and COVID-19: How to Reduce Potential Poisonings

By Stephanie Blevins Wycoff, Extension Associate, Pesticide Safety Education

National news outlets have recently reported that widespread use of disinfectants during the COVID-19 pandemic has potentially led to unfortunate, accidental exposures and poisonings across the United States. The use of disinfectants is common practice in many workplace settings and households. However, misuse of these products can lead to unnecessary exposures and potential poisonings.

Use of Disinfectants and COVID-19

According to a weekly report from the Centers for Disease Control (CDC) (April 24, 2020; 69(16): 496-498), a sharp increase in exposure calls to poison control centers across the United States occurred from January through March 2020; more than was reported in the same three months of 2018 and 2019. The report states that a large percentage of calls involved children (ages 5 and under), and the majority of calls were related to overexposure to cleaners and disinfectants. According to the report, there is not enough data to form a direct link between the COVID-19 pandemic and exposure to these products. However, the information collected indicates there is a "clear temporal association with increased use of these products."

Reports of Accidental Poisonings

The CDC report cites two cases of accidental poisonings, both of which resulted in the need for medical treatment.

In one instance, an adult was hospitalized after attempting to clean groceries with a 10% bleach solution, vinegar, and hot water. The mixture emitted a noxious gas, causing respiratory difficulty. **Note, it is never recommended to mix bleach with any substance other than water.** Always follow the directions listed on the product label. The report also describes how the adult attempted to sanitize food by soaking produce in the mixture. **Note, produce should not be soaked in a bleach solution before consumption. It should only be rinsed with water.**

In another instance, a small child was found unresponsive after ingesting an open bottle of hand sanitizer. **Note, the best way to prevent this type of incident is to keep disinfectants and sanitizers out of the reach of children (and pets).** Many child poisonings are a direct result of improper storage of products.

Are Cleaning Products Considered Pesticides?

Yes, cleaning products are considered pesticides if they are used to disinfect surfaces such as countertops, floors, and hospital equipment. Take time to read the labels on your household products. When reading the labels, you may see "EPA registration numbers." These numbers indicate the product is a pesticide and is regulated and approved for use by the Environmental Protection Agency (EPA). Figure 1 depicts several household products that have EPA registration numbers and are, therefore, pesticides.

A short video from the National Pesticide Information Center (NPIC) provides more information on the proper use of disinfectants (youtube.com/watch?v=rfkzHv40Pz0&t=33s).

Fig. 1. Common household disinfectants regulated as pesticides.

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Disinfectants and COVID-19: How to Reduce Potential Poisonings (Continued)

Ways to Reduce Exposure and the Potential for Poisoning

Read the Product Label – Always READ THE LABEL before purchasing, using, storing, or disposing of a product or its container. This step is often skipped, but it is worth the time and can save you a lot of trouble down the road. The label includes instructions on how to use the product, how to protect yourself during use, first aid information in case of an accident, and instructions for proper storage and disposal.

Wear the Recommended PPE – If personal protective equipment (PPE) is needed to use a product, it will be listed on the label. For household disinfectants, the PPE may be as simple as wearing rubber gloves or safety glasses. Any-time you use a pesticide, it is recommended you wear a long-sleeved shirt, long pants, socks, and closed-toed shoes.

Use the Product as Directed – Read the "Directions for Use" section on the label to learn how to use a product properly. Household disinfectant labels will list the intended application sites (i.e., showers/tubs, sinks, laundry, toilet bowls, etc.) and the intended uses (i.e., to clean, sanitize or disinfect; to clean lime scale or soap scum; to control mold or mildew; etc.), and describe how to apply or mix the product. Never use a product in any way other than what is listed on the label!

First Aid: Be Informed – The labels on your household disinfectants, and any other pesticide label, will list first aid recommendations in case of accidents. Always read the "First Aid" section on the label before using any product. This section will give instructions on how to handle accidental exposures like spilling the product on your skin, getting the product in your eyes, or accidental inhalation or ingestion. If an accident occurs and help is needed, call your physi-cian (or 911 for emergencies) or the National Poison Control Center at 1-800-222-1222.

Consider Storage and Disposal – Read the "Storage and Disposal" section of the label to learn about proper storage and disposal methods. Storage is perhaps one of the most important tools in keeping people and pets safe. Improper storage of household disinfects and other pesticides is a root cause for many accidental poisonings, especially in young children. Always keep these products stored out of the reach of children and pets, preferably in a locked cabinet. Never transfer household disinfectants or any other pesticide to containers like soda bottles, where one could mistake the liquid for a beverage.

Online Resources for Additional Information on Safe Pesticide Use

- **Environmental Protection Agency**: epa.gov/safepestcontrol
- **Virginia Department of Agriculture and Consumer Services**: vapesticidesafety.com
- **Virginia Tech Pesticide Programs**: sites.google.com/vt.edu/vtppconsumerpse
- **Pesticide Environmental Stewardship**: pesticidestewardship.org/homeowner

Updates from the Virginia Department of Agriculture and Consumer Services, Office of Pesticide Services

Businesses That Provide Janitorial, Cleaning, or Sanitizing Services May Be Exempted From Virginia Pesticide Business Licensing Requirements

The Virginia Department of Agriculture and Consumer Services, Office of Pesticide Services (VDACS-OPS) does not currently require licensing or certification for the use of general use pesticides (non-restricted use pesticides) labeled for disinfecting or sanitizing by companies or individuals offering janitorial, cleaning, or sanitizing services.

Per 2VAC 5-680-20.B.4 (law.lis.virginia.gov/admincode/title2/agency5/chapter680/section20/), businesses that provide janitorial, cleaning, or sanitizing services are specifically exempted from the pesticide business licensing requirements if the providers use no pesticides other than sanitizers, disinfectants, and germicides so long as they are not restricted use. Similarly, as provided in Section 3.2-3931 of the Virginia Pesticide Control Act (law.lis.virginia.gov/vacode/title3.2/chapter39/section3.2-3931/), certification as a pesticide applicator is not required for an individual providing janitorial, cleaning, or sanitizing services if they only apply non-restricted use sanitizers, disinfectants, and germicides. The exemptions are not specific to any type of microorganisms being controlled, just to the types of products being used (sanitizers, disinfectants, and germicides).

Although these providers are exempt, VDACS does regulate the manufacture, sale, distribution, and use of the products and will investigate any potential misuses of disinfectants, sanitizers, and germicides. All pesticides, including sanitizers, disinfectants, and germicides, must be registered with VDACS when manufactured, distributed, sold, offered for sale, used or offered for use in the Commonwealth.

To determine if a pesticide product is registered in Virginia, please visit the National Pesticide Information Retrieval System (http://state.ceris.purdue.edu/) and select Virginia on the map. Next, select “Search Data.” From this page, you can enter the EPA registration number from the label on the product’s container and verify it is registered in Virginia. Only pesticides registered for use in Virginia can be legally applied.

COVID-19 Pesticide Applicator Testing

The closure of DMV offices due to COVID-19 has eliminated the primary testing option for many prospective pesticide applicators who are required to take pesticide applicator certification exams. As a result, VDACS has implemented the following procedures to assist licensed pesticide businesses as well as current and prospective pesticide applicators.

Pesticide Applicator Certification Renewal Date – Given the continuing public health crisis, the pesticide certification renewal date for commercial applicators and registered technicians has been extended from June 30 to August 29, 2020. This extension will allow applicators an additional 60 days to take the recertification training required for renewal. Applicators may continue to apply pesticides between June 30 and August 29. However, all applicators must renew by midnight on August 29. Applicators who do not review by August 29 cannot apply pesticides until they renew their certification. There is no additional grace period. In addition, applicators who do not renew their certification by August 29 will be required to renew by testing. Renewal notices will be mailed in the near future, and applicators are encouraged to renew their certificates after they take the required recertification course. While the 2020 date for renewal has been extended to August 29, the expiration date of certificates renewed during 2020 will be June 30, 2022.

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In-Person Testing for Commercial Applicators – VDACS will offer in-person pesticide applicator certification testing for commercial applicators. The in-person testing will be held at predetermined locations and by invitation only to ensure adequate social distancing and no more than 10 individuals at each test site. For the scheduling of exams, the administration has determined that commercial applicators involved in agriculture production or food processing (Categories 1A, 1C, 7A, and 7C) will be given preference over other applicants. Once agriculture production and food processing applicants have completed their testing, all other applicants will be scheduled based on the date VDACS-OPS issued their Notice of Authorization. As VDACS has implemented the Temporary Registered Technician Requirement, registered technicians are not included as part of the initial in-person testing. In-person testing for commercial applicators will continue until such time as DMV offices reopen. Please do not contact VDACS to determine your scheduled testing time. Applicants will be notified by VDACS-OPS staff. An employee cannot apply pesticides as a certified commercial applicator until such employee has successfully completed training and passed the written exams at a VDACS approved testing site. The in-person testing described above will satisfy this requirement.

The DMV will be reopening select customer service centers beginning on May 18 with more to follow. Information regarding the opening of customer service centers and the services available can be found on the DMV website at dmv.virginia.gov/general/#appointments.asp. All services will be by appointment only including pesticide applicator certification testing. Appointments can be made at the link above under Book Your Appointment Now. When scheduling an appointment, prospective applicators will select the "Learner's Permit and Other Testing" service type and the location where they will be testing. Applicators will next select the category "Knowledge Testing" and indicate they would like to take the knowledge test for "Dealer Operators, Salesperson, or Pesticide Applicator Certification". Should you need additional information regarding DMV reopening or services available, please contact DMV directly.

Temporary Registered Technician Requirement – Licensed pesticide businesses can allow their employees to apply pesticides without obtaining a registered technician certification for the duration of the state of emergency due to COVID-19, as declared by Governor Northam (Executive Order 51), when these employees meet certain training and testing requirements. This also applies to registered technicians not-for-hire (any registered technician who uses or supervises the use of pesticides as part of his job duties only on property owned or leased by him or his employer; it also applies to governmental employees who use or supervise the use of pesticides in the performance of their official duties). Allowing employees to apply pesticides without obtaining a registered technician certification will cease 30 days after Governor Northam rescinds Virginia's COVID-19 state of emergency.

The training and testing requirements, as well as the requirements for the licensed pesticide business, can be found on the VDACS website (vdacs.virginia.gov/pdf/covid-temporary-registered-technicianrequirements.pdf). Pesticide businesses should complete one form per pesticide business location and return the form to VDACS. Pesticide businesses are required to keep documentation of the training and testing of employees under this temporary requirement for two years.

Please note that VDACS is not providing a test. Licensed businesses should develop the test based on their current training program. At a minimum, the test must cover the minimum requirements set forth per 2VAC5-685-90 (law.lis.virginia.gov/admincode/title2/agency5/chapter685/section90).

Authorization to Test – All authorization letters for prospective pesticide applicators to take the certification exam(s) issued on or after December 20, 2019, will have their expiration dates extended to July 31, 2020 or the current date of expiration, whichever is greater. Prospective applicators that do not take the exam(s) by July 31, 2020 or the current date of expiration, whichever is greater, will be required to submit a new application with appropriate fees to take the exam(s).

This information can be found on the VDACS-OPS website (vdacs.virginia.gov/pesticide-applicator-certification.shtm). Please visit the website regularly for the most current information. Also, as a reminder, while some in-person commercial applicator recertification courses have been cancelled or postponed, there are approved online recertification courses for the majority of categories. A list of approved recertification courses is available at the Virginia Tech Pesticide Programs website under "Training Opportunities" (vtpp.ento.vt.edu/applicators.html).

The Cicadas Are Coming

By Daniel L. Frank, Director of Pesticide Programs

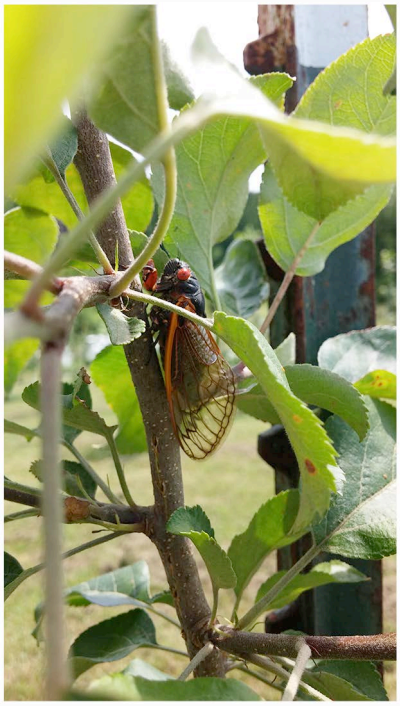

Fig. 2 - Female periodical cicada.

Have you heard of Brood IX (9)? Brood IX is a group of periodical cicadas – insects that will be appearing throughout much of southwestern Virginia this spring. These cicadas will emerge in mass from the soil where they have spent the last 17 years sucking the nutrients from the roots of woody plants. Three species of 17-year cicadas will collectively make up Brood IX; *Magicicada septendecim*, *Magicicada cassini*, and *Magicicada septendecula*. Cicada emergence will begin in May when soil temperatures exceed 64° F, with activity ceasing about four to six weeks after they first start emerging.

Fig. 3 - Egg laying scars on twigs.

The sound cicadas are known for is produced only by the males. Organs on the abdomen of the male cicada, called "tymbals," rapidly vibrate to produce a characteristic song used to attract females for mating. Once the females (fig. 2) have successfully mated, they will cut small slits in the twigs of trees and woody shrubs to lay their eggs (fig. 3). When the eggs hatch, the immature cicadas, called "nymphs" (fig. 4), will burrow into the soil where they will remain for another 17 years to start the process anew.

Fig. 4 - Nymphal exoskeleton shed during final molt.

The Cicadas Are Coming (Continued)

What Is a Brood?

Periodical cicadas are found only in eastern North America and can have either 13- or 17-year life cycles. Periodical cicadas that are in the same stage of development, and that emerge together in a given region during the same year, are known collectively as a single brood. Each brood is designated by a unique Roman numeral. Periodical cicada broods are so synchronized developmentally, that they are nearly absent as adults in the years between mass emergences. Why do so many emerge during a relatively short period? Most likely because the large number overwhelms potential predators. There are far more cicadas than can be eaten by the local wildlife, which allows individuals to successfully reproduce to continue the next generation.

Injury and Control

Cicadas are not normally considered important pests. They pose no health threat and will not bite or sting people and pets. Although cicadas are plant feeders, the only noticeable injury they cause to plants results from egg laying by females. The incisions that egg-laying cicadas make in the twigs of trees may cause those twigs to die and eventually hang down or break off (a form of damage often referred to as flagging). This type of injury can be quite noticeable and extensive during years when periodical cicadas emerge in mass within a given area. Feeding and egg laying by cicadas rarely causes much harm to well-established trees. However, it may interfere with the growth of, or even kill, very young or newly planted trees. During years when periodical cicada emergence is predicted in an area, individuals may want to consider postponing the planting of new trees and covering existing young trees with a fine mesh netting during the egg-laying period. Insecticide treatments are not recommended for cicada control except in commercial tree plantings.

Benefits

Although often considered a nuisance to humans, periodical cicadas are very beneficial to the environment. Their emergence aerates the soil and their bodies contribute nitrogen and other nutrients to the soil once they die. In addition, cicadas serve as a food source to various birds, mammals, and fish.

Additional Periodical Cicada Resources from VCE
VCE Fact Sheet: pubs.ext.vt.edu/444/444-276/444-276.html

Virginia Tech Pesticide Programs

TRAINING MANUALS AND ONLINE COURSES

VTPP.ORG

Visit our newly redesigned website for more information and resources!

Welcome to Consumer Pesticide Safety, a resource offered by Virginia Tech Pesticide Programs to deliver pesticide safety information to consumers and homeowners. This site contains information on the safe and proper use of pesticide products. You should always READ THE LABEL before purchasing, using, storing, or disposing of a pesticide product or its container.