

The Pesticide Applicator Report

News for Vermont's Pesticide Applicators from the
Vermont Agency of Agriculture, Food & Markets and UVM Extension



Fall 2021 Volume 22 – Issue 2

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Vermont Wildlife Trapping Regulations

Kim Royar, Vermont Fish and Wildlife

On January 1, 2020, amendments to Title 10 section 4828 of Vermont statutes, relating to taking of rabbits and furbearers in defense of property became effective. In general, the regulatory requirements for trapping rabbits and furbearers are not applicable to a landowner who takes rabbits or furbearers in defense of property; or to a town protecting town highways or bridges. However, any person who for compensation, sets a trap for rabbits or furbearing animals, on the property of another person in defense of that property, must have a valid trapping license. The statute can be found here: <https://legislature.vermont.gov/statutes/section/10/113/04828>.

At the same time as this amendment, the legislature also directed the Vermont Fish and Wildlife Board to adopt rules that would apply to anyone trapping rabbits and furbearer animals in defense of property, for compensation under 10 V.S.A. §4828. The adopted rules are set forth in 10 V.S.A. Appendix §44. The rules can be found here: <https://legislature.vermont.gov/statutes/section/10APPENDIX/001/00044>. Only some sections of the rules in §44 are applicable to persons who trap in defense of property for compensation. See list on next page.

Whether the conflict with wildlife is simple or complex, your response should follow the laws as well as the highest ethical standards. Some species are protected by federal law, such as migratory birds including Canada geese, gulls, hawks, robins, and woodpeckers. Vermont protects birds, game and furbearer species, such as white-tailed deer, cottontail rabbits, wild turkeys, bobcats, raccoons, and foxes. In addition, species that are endangered and threatened are protected by both federal and state laws. Actions that impact any of these species may require a state takings or

(continued)

depredation permit.

Knowing the current laws and regulations about vertebrate wildlife control in Vermont is vital to wildlife control operators. Consult the Vermont Hunting and Trapping Guide for laws and regulations pertaining to furbearers.

<http://www.eregulations.com/vermont/hunting/>

Sections of the rules in §44 applicable to persons who trap in defense of property for compensation:

- 4.1 - Except as provided in paragraph 4.2, you must visit each trap at least once in a calendar day; and dispatch or release any animal caught in each trap.
- 4.2 - Any person who sets a trap in the water or under the ice, must visit the trap at least once every 3 calendar days and remove any animal caught the trap.
- 4.3 – All traps shall have a rustless tag or be permanently and legibly labeled with the trapper’s name and address.
- 4.4 - All traps set under the ice must be marked with a tag visible above the ice.
- 4.5 - A person shall not set a body gripping trap with a jaw spread over eight inches measured inside the jaws unless the trap is set five feet or more above the ground, or in the water.
- 4.6 - A person shall not use toothed foothold traps or snares when trapping under this section.
- 4.8 - A person shall not possess a living fur-bearing animal, except as provided by statute or rules of the board. Therefore, furbearers taken in defense of property may be released on the same parcel once exclusionary measures have been implemented. If that is not possible, then the animal must be humanely dispatched as it is not legal to release them off-site.
- 4.10 - A person shall not possess fur or skin of a fur-bearing animal if that animal was not taken lawfully.
- 4.11 – Taking a fur-bearing animal with any poisonous mixture is prohibited, except for humane dispatch, i.e., CO2.
- 4.14 (e) – Anyone who takes bobcat, fisher, and otter and wants to keep the pelt, must notify authorized Department staff within 84 hours. Pelts shall be presented to authorized Department staff for tagging, which must remain affixed until tanned. Carcasses shall be surrendered to authorized Department staff at the time of tagging.
- 4.15 (b) - Any person who incidentally captures a lynx shall notify the Department immediately.
- 4.17 - Biological Collection. Any person who has a trapping license shall complete and submit an annual biological collection trapper survey for the license season to the Department, within the timeline specified by the Commissioner.
- 5.19 – With exception of state and federally listed threatened and endangered species, season shall not be applicable to any person, who takes a furbearing animal in defense of person or property for compensation
- 6.0 – In accordance with Sec. 11 of Act 170 from the 2017-2018 Adj Session, the following sections and subsections of board rules set forth in Title 10, Appendix § 44 are applicable to trapping rabbits and furbearing animals in defense of property for compensation: 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.8 (however, possession is allowed for the purpose of moving the animal to a more appropriate place for dispatch), 4.10, 4.11 (unless the animal has already been trapped), 4.14 e, 4.16 (b), 4.17 (a) and (b).

Fish and Wildlife Department staff are planning to host a voluntary training for anyone trapping furbearers in defense of property in spring of 2022.

If you are interested in the training please contact MaryBeth.Adler@Vermont.gov

Requirements for the Use of All Paraquat Products

Doug Johnstone, Vermont Agency of Agriculture, Food & Markets

The restricted use pesticide (RUP) Paraquat Dichloride (paraquat) is a post-emergent, contact herbicide that can be purchased and used in Vermont by certified applicators. It's available as brand names such as, Gramoxone; Helmquat; Omni Brand Paraquat; Paraq; and Parazone to name a few. It is characterized as a bipyridylum herbicide, and its mode of action works by Photosystem I -electron diversion. In layman's terms, it is an herbicide that is applied to already emerged plants and only affects the part of the plant that it comes into contact with. It kills plants, especially when exposed to sunlight, by stealing electrons that are vital to plant tissue growth and function, creating oxygen compounds, like hydrogen peroxide, that cause necrosis or plant cell death.

Paraquat is also highly toxic to mammals due to an LD50 of approximately 150 mg/kg (PPM). It is a toxicity category I pesticide because it is acutely toxic through all routes of exposure, there is no antidote, and information indicates that one sip can be lethal. Paraquat was one of most widely used herbicides in the United States, although it has been replaced over the past 20 – 30 years with lower risk alternatives like glyphosate. Continued uses in Vermont include no-till burn down and weed control in pome fruits, especially baby trees, due to the phytotoxicity of glyphosate on spires and maidens.

In January 2017, the Environmental Protection Agency (EPA) amended the "Paraquat Dichloride Human Health Mitigation Decision" to address the high number and severity of human health incidents associated with Paraquat over the last few decades. This amended decision can be found here:

www.regulations.gov/document/EPA-HQ-OPP-

[2011-0855-0112](#). This document explains how EPA has determined that the following risk measures are necessary for pesticide containers containing Paraquat to meet the standard of registration:

- Label changes emphasizing paraquat toxicity and supplemental warning materials;
- Targeted training materials for paraquat users;
- Closed-system packaging for all non-bulk (less than 120 gallon) end use product containers, and;
- Restricting the use of all paraquat products to certified applicators ONLY.

The changes most affecting Vermont applicators are the last three bullet points, so these will be addressed.

TRAINING: EPA is requiring all certified applicators who handle paraquat products to take EPA-approved training that will provide information on:

- Paraquat toxicity;
- Summary of the new label requirements and restrictions;
- Consequences and examples of misuse of paraquat;
- How to apply paraquat using various application methods;
- What to do in case of accidental exposure, and
- Appropriate handling, storage, disposal, and personal protective equipment (PPE) requirements and instructions.

Approved training can be found here:

<https://npsec.us/paraquat-training-update-11-27-2020>

CLOSED SYSTEM PACKAGING: All closed system packaging must be approved by EPA, is required for all containers less than 120

gallons, and requires that:

- The closed system must connect to the container in a way that the closed system is the only feasible way to remove the paraquat without destroying the container (screw caps are not permissible);
- The closed system must remove the paraquat from its original container and transfer it to the application equipment through connecting hoses, pipes and couplings that are sufficiently tight to prevent exposure to the handler, and;
- Tank mixing may only occur with properly evaluated, compatible formulations.

CERTIFIED APPLICATORS ONLY:

Paraquat products are only to be used by certified applicators who have met the competency standards established by state, tribal or federal agencies to use or handle Paraquat. Uncertified applicators working under the direct supervision are NOT ALLOWED TO USE Paraquat products.

Protecting Ash Trees from Emerald Ash Borer

Joanne Garton, Technical Assistance Coordinator, Vermont Urban & Community Forestry Program, Department of Forests, Parks and Recreation

All species of ash trees native to Vermont are threatened by emerald ash borer (EAB), an invasive forest pest first confirmed in the United States in southeastern Michigan in 2002 and in Vermont in 2018. EAB larvae feed on the cambium layer of a tree just below the bark, forming S-shaped tunnels that, in great numbers, cut off the nutrient supply to the tree and effectively girdle and kill it. While not as impactful as the larval stage of the insect, the adult beetle feeds on the leaves of ash trees, reducing tree canopy and overall tree health.

Most ash trees in Vermont have little to no resistance to EAB infestation, although current research and monitoring looks for “lingering ash”, or those trees with mechanisms to stop damage from the larvae and ultimately stop larval feeding. Treatment with insecticide remains the most viable method for ash tree protection and, when properly administered, is highly effective in extending the life of ash trees in EAB-infested areas.

The Vermont Urban & Community Forestry (VT UCF) Program, a collaborative between the Vermont Department of Forests, Parks & Recreation and the University of Vermont Extension, regularly fields questions from concerned landowners and land managers wanting to protect individual ash trees from EAB, specifically on publicly owned property or in the municipal right-of-way. While soil drenches or injectable tree plugs are available for purchase online, the State of Vermont recommends that ash trees be treated with systemic, trunk-injected insecticides containing the active ingredients emamectin benzoate or azadirachtin, neither of which are neonicotinoids. Improper administration of these trunk-injected insecticides can damage a tree; as such, the VT UCF Program recommends that landowners or municipalities hire an arborist certified by the International Society of Arboriculture (ISA). Any person applying these types of insecticides to trees on public property or property that is not their own must be a certified pesticide applicator with a category 3A (Ornamental & Shade Tree) certificate. Commercial pesticide application companies must also be in good standing with the Vermont Agency of Agriculture, Food and Markets (VAAFAM). VT UCF released an updated (September 2021) list of tree care companies in good standing with VAAFAM and with at least one ISA Certified Arborist and at least one certified pesticide applicator on staff.

Some landowners ask if they can apply insecticides to ash trees on their own property. The simple answer is yes, any Class B or Class C pesticide that can be legally purchased in Vermont can be used by landowners to treat their own ash trees if they follow the directions on the product label. However, most pesticides used to treat ash trees for EAB are restricted-use pesticides that do require pesticide applicator certification and are not allowable for use by uncertified landowners. Furthermore, some pesticides for purchase online are not legal in Vermont.

Earlier this year, the VT UCF Program released updated outreach material regarding insecticide treatment of ash trees to protect them from EAB infestation. View them at the links below or visit the program's EAB Preparedness webpage.

- Vermont Urban & Community Forestry Emerald Ash Borer Management <https://vtcommunityforestry.org/community-planning/tree-pests>
- Options for Protecting Ash Trees from Emerald Ash Borer with Insecticide Treatments <https://vtcommunityforestry.org/sites/default/files/pictures/eabtreatment.pdf>
- Frequently Asked Questions: Insecticide Applications to Protect Ash Trees from Emerald Ash Borer https://vtcommunityforestry.org/sites/default/files/pictures/faq_insecticide_application.pdf
- Ash Tree Protection Services Contact List September 2021 https://vtcommunityforestry.org/sites/default/files/pictures/ash_protection_services_contact_list.pdf

Questions about the legality of specific pesticide products and their use? Contact:

Anne.Macmillan@vermont.gov

802-828-3479

Pesticide Certification & Training and
WPS Coordinator, VAAFM

Pesticide Storage

Matthew Wood, PHARM Field Agent, Vermont Agency of Agriculture, Food & Markets

No job is really finished until the pesticides, containers, and your equipment have been put away properly. Get into the habit of storing all your materials safely before you clean up and go home, or on to the next job. While cleaning up and putting away the pesticides, containers, and equipment you should wear all the personal protective equipment (PPE) you used on the job. Consider wearing gloves and other protective equipment, even if they aren't required by the label. Spills and accidental contamination often occur during storage of pesticides.

The Storage Building. Most applicators use existing buildings or areas within existing buildings for pesticide storage. If possible, use a separate building for your pesticide storage, or choose a wing or corner on the first floor of an existing building. The site should be in an area where flooding is unlikely. It should be downwind and downhill from sensitive areas such as houses, ponds, and play areas. There should be no chance that runoff or drainage from the site could contaminate surface or groundwater.

Setting Up the Storage Area. Pesticides should be stored in a cool, dry, airy room or building. Fans are an important feature of any pesticide storage building. A properly installed ventilation system should have a switch outside, so it can be ventilated before anyone enters the facility. The storage area should be fenced in or at least able to be locked. Pesticide storage area signs

should be hung on or near each door. A good supply of soap and water is a must near your storage area. It's quick first aid in a poisoning emergency. Adsorptive clay, activated charcoal, vermiculite, or pet litter should be readily available to soak up spills and leaks. Hydrated lime and high pH commercial detergent should also be on hand to neutralize any spilled pesticide that cannot be recovered. A shovel, broom, dustpan, and a fire extinguisher are other "musts" to have near the storage area.

A pesticide storage area, whether it is a room or a whole building, should be used only for pesticides and pesticide equipment. Never store food, drinks, silverware, tobacco products, or personal protective clothing in the storage area. Livestock feed, living plants, and seeds should never be stored with or near pesticides.

Temperature considerations. Containers of liquid pesticides should be stored where they are not in the sun or near other sources of heat, such as steam pipes, furnaces, etc. Heat may cause the formulation to break down and lose effectiveness. Heated liquids could expand causing pressure which could spray pesticides onto you when opened. Also protect sensitive pesticides from freezing. Freezing could destroy the usefulness of some pesticide products. Freezing may also cause liquid pesticides to burst their containers, resulting in leakage. Consult the Storage and Disposal section on the label for information on temperature ranges acceptable for storing each product. Pesticides must be stored in their original container with the label attached.

Herbicides should be stored in a special place apart from other pesticides, fertilizers, and seeds. Some herbicides can vaporize and get into other nearby pesticides. When the contaminated pesticide is used, the herbicide vapors in it could injure or kill desirable plants.

Surplus pesticides. A separate area in storage should be used for holding surplus pesticides and their containers being held for disposal. They should be grouped together and plainly labeled according to how you plan to dispose of them. This will prevent mix-ups resulting in improper disposal or accidental use. Dispose of unwanted pesticides as soon as possible by contacting your local solid waste district or Agriculture Field Agent for help.

Pesticide containers should be stored with the label in plain sight. They should be stored up off the floor, especially if they can be damaged by dampness. Rigid containers should always be set in an upright position so they cannot spill. Store liquid formulations below any dry formulations to prevent cross-contamination should a leak occur.

Damaged Containers. All pesticide containers should be checked often for corrosion, leaks, loose caps, or bungs. You must correct these dangerous conditions immediately. If containers are damaged, you should put the pesticide in a sound, suitable larger container which can be sealed and labeled. Fasten the label from the damaged container to the outside of the new container. Unlabeled pesticides are dangerous since you don't know what they are or how to use them. Unlabeled pesticides must be relabeled immediately.

Future storage requirements. A future re-write of the Vermont pesticide regulations may include some of the following additional requirements:

- Smooth floors, and no dirt floors allowed unless pesticide containers are kept in secondary containment such as trays or bins.
- More prescribed storage area signage wording.
- Ventilation if storage is a room and not just a cabinet.

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- Emergency phone numbers posted near storage.
 - Sufficient lighting.
 - Non-triple-rinsed containers kept in storage.
 - No floor drain in storage area unless it leads to a basin with no outlet.

Remember to make good pesticide storage practices a habit - to protect you, your workers, family, friends, and the environment!



Introducing...

Morgan Griffith, Agrichemical Research and Policy Specialist

morgan.griffith@vermont.gov (802) 279-9395

We are happy to welcome Morgan Griffith as the new Agrichemical Research & Policy Specialist. She joins us after 10 years as a Food Scientist working in Research & Development for Keurig Dr Pepper, Drinkworks and Sugarman of Vermont. She has had a hand in developing everything from chicken soup to an old fashioned in a k-cup. However, Morgan is happy to hang up her lab coat and put away her recipes for coffee, cocktails, and maple syrup to utilize her master's degree in Plant and Soil Science. At UVM, she grew apples and cold hardy grapes for six years at the Horticulture Research and Education Center. Morgan lives with her husband, two daughters and their chocolate lab in Waterbury and is beyond excited to work with the team at the Agency of Agriculture, Food, and Markets.

Training and Recertification Credit Online Courses

uvm.edu/extension/pseponline

- CORE Manual Review (no credit)
- CORE Manual Review, Unit #1 (1 credit)
- CORE Manual Review, Unit #2 (1 credit)
- CORE Manual Review, Unit #3 (1 credit)
- CORE Manual Review, Unit #4 (1 credit)
- Managing Pests While Protecting Pollinators (1 credit)
- Category 7A Manual Review (no credit)
- Category 7A Manual Review, Unit #1 (1 credit)
- Category 7A Manual Review, Unit #2 (1 credit)
- Category 7A Manual Review, Unit #3 (1 credit)
- Category 7A Manual Review, Unit #4 (1 credit)



Welcome to the Pesticide Safety Education Program Online Courses!

Resources to help study for pesticide applicator exams and/or to provide recertification credits for certified pesticide applicators. Presented by University of Vermont Extension Pesticide Safety Education Program and the Vermont Agency of Agriculture, Food & Markets.

EXTENSION
FOUNDATION

Campus

Helpful Contacts for Pesticide Applicators

Vermont Agency of Agriculture, Food & Markets

Field Agent NE	(802) 793-1628	Bethany.Creaser@vermont.gov
Field Agent CTR/SW	(802) 661-8284	Clark.Parmelee@vermont.gov
Field Agent SE	(802) 793-2547	Doug.Johnstone@vermont.gov
Field Agent NW Golf Course Permit Coordinator	(802) 318-1383	Matthew.Wood@vermont.gov
Agrichemical Research Policy Specialist	(802) 279-9395	Morgan.Griffith@vermont.gov
Certification & Training Toxicologist	(802) 828-3479	Anne.Macmillan@vermont.gov
Pollinator Health Specialist	(802) 272-6688	Brooke.Decker@vermont.gov
Entomologist	(802) 279-2212	Judy.Rosovsky@vermont.gov
Groundwater Monitoring Program	(802) 828-3473	Patti.Casey@vermont.gov
Agrichemical Section Chief	(802) 461-5040	Kanika.Gandhi@vermont.gov
Director	(802) 828-6531	Cary.Giguere@vermont.gov

University of Vermont Extension

Pesticide Safety Education Program	(802) 656-0475	Sarah.Kingsley@uvm.edu
Plant Diagnostic Clinic Pesticide Safety Education Program	(802) 656-0493	Ann.Hazelrigg@uvm.edu
Vegetable & Berry	(802) 257-7967 x303	Vernon.Grubinger@uvm.edu
Entomology	(802) 656-5440	Margaret.Skinner@uvm.edu
Field Crops & Nutrient Management	(802) 388-4969 x332	Jeff.Carter@uvm.edu
Agronomy Outreach Specialist	(802) 751-8307 x356	Laura.O.Johnson@uvm.edu
Agronomy	(802) 524-6501 x437	Heather.Darby@uvm.edu

Save the Date! Initial Pesticide Certification Meeting 2022

April 19: Armed Forces Reserve Center, White River Junction, VT

April 21: Robert Miller Community Center, Burlington, VT

- Review of the Northeast CORE Manual followed by the Vermont Pesticide Applicator CORE Exam
- This program will provide FOUR (4) Vermont recertification credits.
- **Stay tuned for details and registration announcements!**
- Visit www.uvm.edu/extension/psep for more information about the program or contact Sarah Kingsley-Richards at (802) 656-0475 sarah.kingsley@uvm.edu



Home Study Quiz 1 – Wildlife Trapping, Emerald Ash Borer

(Please keep answers brief; use additional paper as needed.)

- 1. What type of license is required for a person trapping nuisance wildlife on the property of others?**
- 2. What is the only humane poisonous mixture that can be used to dispatch a trapped furbearer?**
- 3. What are licensed trappers required to submit to the Department of Fish and Wildlife annually?**
- 4. How often must traps be visited and how must they be identified?**
- 5. How does Emerald Ash borer kill ash trees?**
- 6. Which active ingredients does the State of Vermont recommend for trunk-injected, insecticide treatments to ash trees?**
- 7. What is the certification requirement for someone applying an insecticide to ornamental trees not on their own property?**
- 8. When and where was emerald ash borer first confirmed in the U.S. and Vermont?**
- 9. Although most ash trees have little to no resistance to emerald ash borer, what is current research and monitoring in search of?**
- 10. Where should pesticide storage areas be sited?**

Mail the completed quiz to receive one (1) pesticide recertification credit.

The following information is required.

Name:		
Certificate #:		Please check: <input type="checkbox"/> Commercial <input type="checkbox"/> Private <input type="checkbox"/> Non-Commercial <input type="checkbox"/> Government
Street Address:		
City/State/Zip		
Company/Farm:		
Signature:	Date:	
Email address (optional):		
Mail to:	Vermont Agency of Agriculture, Food & Markets Attn: Anne Macmillan 116 State Street Montpelier, VT 05620-2901	

Did you know?

- The **UVM Pesticide Safety Education Program (PSEP)** works closely with the Vermont Agency of Agriculture, Food & Markets to provide training and education resources for current and prospective pesticide applicators: *Certification Information, **Online Training and Recertification Courses**, CORE and Other Training, The Pesticide Applicator Report, COVID-19 Resources, Fact Sheets, Helpful Links.*

UVM Pesticide Safety Education Program

(802) 656-0475

uvm.edu/extension/psep

Home Study Quiz 2 – Paraquat Requirements, Pesticide Storage

(Please keep answers brief; use additional paper as needed.)

- 1. What does RUP stand for?**
- 2. How does a contact herbicide work?**
- 3. How does closed system packaging work?**
- 4. List two uses of paraquat in Vermont.**
- 5. What is the antidote for paraquat poisoning?**
- 6. What should be done if damaged pesticide containers are found when checking storage facilities?**
- 7. Where should one look to determine the proper storage temperatures?**
- 8. Name 5 future storage requirements.**
- 9. What should be stored in a pesticide storage area?**
- 10. What is an important feature of any pesticide storage area?**

Mail the completed quiz to receive one (1) pesticide recertification credit.

The following information is required.

Name:		
Certificate #:		Please check: <input type="checkbox"/> Commercial <input type="checkbox"/> Private <input type="checkbox"/> Non-Commercial <input type="checkbox"/> Government
Street Address:		
City/State/Zip		
Company/Farm:		
Signature:	Date:	
Email address (optional):		
Mail to:	Vermont Agency of Agriculture, Food & Markets Attn: Anne Macmillan 116 State Street Montpelier, VT 05620-2901	

Did you know?

- The UVM Extension Master Gardener Helpline volunteers serve **HOMEOWNERS** in Vermont to answer gardening questions, providing science based information about home horticulture issues.

UVM Master Gardener Helpline
(802) 656-5421
uvm.edu/extension/mastergardener/helpline

Ditch the Paper!

The Pesticide Applicator Report is considering including an electronic format to improve speed of delivery and reduce mail costs. You would be given the choice to receive the publication via email or continue to receive a paper copy through regular mail. Details of the transition are still being explored.

To help our planning, we would like to know if you would prefer to receive the PAR via email or regular mail. **If so, please check one of the boxes below and provide us with your email address if you choose the electronic format.**

I would prefer to receive the PAR via regular mail.

I would prefer to receive the PAR via email.

Email Address: _____ (print clearly).

Please mail the completed survey to:

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

This survey does not count toward pesticide recertification credit.

Questions and comments may also be directed to Anne.Macmillan@vermont.gov 802-828-3479
Pesticide Certification & Training and WPS Coordinator, VAAFMM.