



Cape Cod Cranberry Growers' Association

GROWER ADVISORY

Pesticide Storage, Transportation and Disposal

Pesticide Storage

Massachusetts Department of Agricultural Resources

Massachusetts Department of Agricultural Resources does not have specific standards contained in law or regulation concerning storage of pesticides intended for use. However, a regulation is in place that requires "... no person to distribute, handle, dispose of, discard, or store any pesticide or pesticide container that..." may cause injury to human health or the environment. Currently, there are an extensive amount of guidelines and Best Management Practices in place to aid the grower to this end. The DEP and MDAR have considered on several occasions making some of these guidelines law, however, as of yet they have resisted, acknowledging that "pesticide, mixing, loading, and storage issues, will vary greatly from situation to situation". The Mixing and Loading BMP published by the cranberry research station as well as the guidelines found on the MDAR website are excellent resources in learning how to mitigate incidental negative impact of pesticides upon people and the environment.

Massachusetts Department of Fire Services

The Department of Fire Services regulates pesticide storage under 527 CMR 37.03 that pesticides shall not be stored in the same area as herbicides and shall not be stored with (though not typically used in cranberries) ammonium nitrate fertilizer. Pesticide storage should be confined to a ground-floor room with direct access to the outside. This precludes pesticides from basement storage. Storage areas should also be designed as to prevent unauthorized entry.

Pesticides kept in containers that could easily be damaged by moisture must be kept off the floor. In the event that a container does become damaged the container and its contents shall immediately be disposed or decontaminated in accordance with required regulations (see disposal).

Storage areas must be constructed in a manner that adheres to the state electrical and building codes. These structures should also be built in a location that mitigates pollution to surface and ground water, adjacent croplands and buildings from run-off of fire streams. A prominent and legible sign that reads "**PESTICIDES**" in black 2-in. letters on a white background should identify each storage facility. In addition, each toxic pesticide should have a Material Safety Data Sheet (MSDS) available at each storage location. Pesticide drums and packages should be stacked safely and away from food, refrigerators, and eating areas. In addition, compressed gas pesticides should be stored away from heat such as steam pipes and direct sunlight, separated from other compressed gasses and insured against being knocked over.



It is not atypical that if a pesticide storage facility catches on fire the fire department, by decision of the local fire chief, will choose to let the facility burn to the ground without intervention. The thinking here is that letting the pesticides burn off presents less of a threat than the runoff from fire streams into the environment.

Division of Environmental Protection

Under the Massachusetts contingency plan 310 CMR 40, the Commonwealth prohibits the release of pesticides classified as hazardous materials into the environment in a manner that is not in accordance with labeling. Adhering to the guidelines published by MDAR and the Cranberry Station's BMP on Storage and Mixing are a good way to prevent accidental release of pesticides outside of permissible use. The DEP has also regulated through the Wetlands Protection Act, that **pesticide storage facilities shall not be located in wetlands.**

Environmental Protection Agency

The EPA regulates that any additional storage requirements written on the label be followed, as pesticide labels are law.

Transportation

The Hazardous Materials Regulations (HMR) established procedures that must be followed if you ship or transport hazardous materials in the course of business operations. The following exemptions established under CFR 49 section 173.500 are most relevant to cranberry growers transporting pesticides.

Agricultural Exemption #1 Transporting Agricultural Products Between Fields of Your Own Farm

If you are a farmer transporting agricultural products other than compressed gases between fields of the same farm using local roads you are not regulated by law to comply with any of the requirements in the HMR listed below. **The agricultural products used must be for use on your own farm.**

Agricultural Exemption #2 Transporting Agricultural Products To or From Your Farm

If you are transporting agricultural products to or from your farm within 150-mile radius, you must comply with hazard communication such as shipping papers, placarding, and the incident reporting requirements of the HMR. However, the emergency response and training requirements of the HMR are not necessary. This exception applies to you if:

- 1) you are transporting no more than 502 gallons of a liquid or gas agricultural product or 5070 pounds of a solid agricultural product.
- 2) you are transporting no more than 16,094 pounds of ammonium nitrate fertilizer in a bulk container and the ammonium nitrate fertilizer is an oxidizer
- 3) you are a farmer who is an intrastate private motor carrier.



** These rules may change due to stricter standards in homeland security **

Driver Training

Drivers for chemigation rigs must be issued a Massachusetts State commercial driver's license if they will be operating with a tank of capacity of 1000 gallons or more or for any amount of Table 2 pesticides (see below). All operators (outside of the above exemptions) must receive a general awareness training to familiarize themselves with the safety hazards, emergency response procedures, methods for avoiding accidents, security procedures, and OSHA standards. Any training program that meets the requirements set forth in CFR 49 section 172.704 will suffice.

Placarding and Labeling

Labeling and placarding are two separate procedures. Labeling must always take place unless you are eligible for agricultural exemption #1. The appropriate labels for each hazard class can be found at the <http://tinyurl.com/dotecrf> website in the chart in section 172.400.

Placarding specifics can be a little complicated. All hazardous materials including pesticides classified as hazmats fall into two categories, Table 1 and Table 2. Which chemicals fall into which category can be determined via the website <http://tinyurl.com/dotecrf> under section 172.504. Table 1 hazardous material must be placarded in any quantity. Table 2 pesticides need only be placarded if the quantity exceeds 1000 pounds. Any vehicle that needs placarding needs a driver with a CDL. Placards must be clearly visible from the direction it faces. To this end it should not be obstructed from view by ladders, pipes, mud, etc. and be located away from markings such as advertisements which could reduce visibility on a contrasting background. More information on placarding including a library of placards and their meanings can be found through the office of HAZMAT safety at 1-800-467-4922.

Shipping Papers

Shipping papers are not particular government forms. Rather, the grower may write them up in any format, as long as they contain the following information regarding HAZMAT pesticides in transit.

- 1) Proper shipping name
- 2) Hazard Class
- 3) Packing Group
- 4) Quantity
- 5) Emergency Response (if not under second exemption above)



This information can be found by contacting the manufacturer of the pesticide. In addition, pesticide containers should be properly secured on the transport vehicle and individual containers should be properly labeled as when they were purchased. More information can be found at <http://tinyurl.com/dotecrf> under “Subpart C--Shipping Papers”.

Disposal

A pesticide becomes a waste when it is out of date, damaged, or degraded in quality, or when in the form of an excess tank mixture or rinsate that cannot be applied to the land. A pesticide also becomes a waste when its EPA or State registration has been withdrawn or cancelled.

Disposal of Containers

Disposal requirements on the label are law and typically require a pesticide container to be triple rinsed and recycled. Prior to disposal these containers must be labeled “safe for disposal”, “triple rinsed”, or “processed to meet the definition of empty”. Paper bags are considered by the DEP to be empty and therefore no longer hazardous, in other words a solid waste, that can be put in the trash, if: “all wastes have been removed that can be removed by shaking or using equivalent means to ensure that all wastes have been removed to the extent feasible”. Open burning of containers or bags is against the law because of the possibility of violating open burning laws and the likelihood of incomplete combustion and consequent concentrated areas of contaminated soil. A pesticide container, plastic or paper bag, must be handled with further specific standards if it contained a pesticide deemed a hazardous waste or universal waste.



When Do Pesticides and Their Containers Need to be Managed as Universal or Hazardous Waste?

Waste pesticides are deemed **hazardous waste** if listed in the Massachusetts Hazardous Waste Regulations (310 CMR 30.133-30.136) or if it is corrosive, ignitable, reactive, or toxic. All pesticides that are chlorinated or contain mercury fall into this category.

Waste pesticides are deemed **universal waste** if its EPA or State registration has been cancelled or suspended or the product has been recalled by the EPA or the manufacturer. Also, as a means of facilitating disposal of widely generated hazardous agricultural waste, any material collected as part of a state-authorized pesticide collection program is also classified as **universal waste**. The Universal Waste Rule was adopted by the DEP in 1997 to make it less burdensome and reduce costs associated with statewide collection programs. The grower must have certification from the department to dispose of something as a hazardous waste.

Disposal of Universal Waste

Pesticides and their containers deemed universal waste must be closed and structurally sound, labeled as universal waste, and marked with the name of the pesticides or the original product label. Universal wastes must be stored separate from any hazardous waste, labeled when accumulation began and kept for no more than one year. Universal wastes must be transported to a collection site by a driver with a commercial driver’s license and a HAZMAT endorsement; though a hazardous waste license and shipping papers are not required. Universal waste is only eligible for disposal through a statewide collection program. The last Clean-Out Event took place in 1999 and another will be scheduled for the near future.

Disposal of Hazardous Waste

As mentioned above, a universal waste is a hazardous waste with many restrictions waived because it is being handled by the state. Because of the prohibitively high costs associated with hiring a state licensed hazardous waste management contractor for collection at only one farm this option can be unrealistic. If you decide to forego the state authorized pesticide collection program than you must register with the state as a VSQG (very small quantity generator) to self-transport up to 55 gals of waste. All very complicated. It is a tremendous savings in time and money to the grower to participate in a statewide collection and take advantage of the universal waste rule.

Disposal of Used Personal Protective Equipment (PPE)

MDAR has not fully addressed the issue of disposal of used PPE and it remains a grey area. The best advice for disposal is to treat the used PPE the same as the pesticide container for a respective pesticide, this will insure compliance with the Massachusetts contingency plan. For example if a container needs triple rinsing prior to disposal wash the Tyvek suit prior to throwing it away.

The information in this guide is provided by the Cape Cod Cranberry Growers' Association as a service to its members. The information represents our interpretation of the state requirements and by no means is intended to act as a substitute for reading and following the specific regulatory requirements.

Massachusetts Department of Fire Services, Massachusetts Department of Environmental Protection, and the United States
Environmental Protection Agency
527 CMR 37, 310 CMR 40, 49 CFR 173.5, and 310 CMR 30

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