

Warnings

Pesticides are poisonous. Read and follow all directions and safety precautions on labels. Handle carefully and keep original labeled containers in locked storage areas. Do not contaminate forage, streams, or ponds. Dispose of empty containers in a legal manner.

Repeated exposure to organophosphate (such as Diazinon and Imidan) insecticides may, without symptoms, increase susceptibility to phosphate poisoning. All pesticide treated bogs must not be entered until restricted entry times have elapsed (see label). Workers should be notified prior to treatment. Tell family and co-workers. Make certain your doctor understands. After an accident, there may not be time.

If symptoms of acute pesticide poisoning occur, immediately take victim and appropriate pesticide label or container to the nearest hospital emergency room. For information and advice 24 hours a day, call the Massachusetts poison control system **1-800-222-1222**.

Restricted Use Compounds

Restricted Use Compounds require a **PRIVATE APPLICATOR CERTIFICATION** to buy, handle, and apply. This certification is available through the Massachusetts Department of Agricultural Resources (MDAR): www.mass.gov/pesticide-examination-and-licensing

Restricted Use Compounds:

State restricted because of groundwater concerns (and all products with same active ingredients)

- ACTARA (*thiamethoxam*)
- BRAVO and others (*chlorothalonil*)
- INTREPID and others (*methoxyfenozide*)
- SCORPION (*dinotefuran*)
- SIMAZINE (*simazine*)
- ZEUS (*sulfentrazone*)

Federally restricted because of avian and aquatic toxicity concerns

- DIAZINON (*diazinon*)

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Compounds Requiring a Respirator - specific to formulations and labels, not active ingredient. It will be specifically listed on a pesticide product label under personal protective equipment. Note that there are no “engineering controls” in cranberry applications and you must wear the personal protective equipment listed for mixer and loaders.

Compounds that require a dust/mist filtering respirator - dusts, powders, mists, and sprays

Use a NIOSH-approved dust/mist filtering respirator:

- (NIOSH/MSHA approval number prefix TC-21C or any N, R, P or HE filter)
 - Sevin XLR Plus, Sevin 4F, Carbaryl 4L
 - Nexter
 - Ferbam
 - Bravo Ultrex

Compounds that require a respirator with an organic-vapor removing cartridge - gases and vapors. Use a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides:

- (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides
- (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter
 - Diazinon 50W, Diazinon AG500
 - Imidan 70-W

Compounds that require a powered air purifying canister-type respirator (gas mask) equipped with an organic vapor canister with incorporated HE filters:

- (MSHA/NIOSH approval number prefix TC-14G)
 - Diazinon AG 600 WBC

Compounds Requiring Mandatory Posting

Mandatory posting of no-entry signs is required for the most hazardous pesticides. The signs prohibit entry into pesticide-treated fields until residues decline to a safe level.

If REI is 48 hours or greater, sign posting is required.

- Diazinon 50 W, Diazinon AG500, Diazinon AG 600 WBC (diazinon)
- Badge, Champ, Cuprofix, Kocide, Mastercop, Nu-Cop (coppers)
- Metastar 2E, Ridomil, Ultra Flourish (mefenoxams)
- 2-4 D Granules (2,4-D)
- Imidan 70-W (phosmet)

Danger compounds also require posting.

- Bravo Ultrex
- Echo 90 DF

Compounds Requiring Protective Eyewear for Application and Additional Decontamination Water for Handlers due to Eye Toxicity

Chlorothalonils

- Bravo Ultrex
- Chlorothalonil Zn
- Echo 720, Echo 90 DF
- Equus DF

Coppers

- Badge, Champ, Cuprofix
- Kocide, Mastercop, Nordox, Nu-Cop

Diazinon AG500

Intensity, Intensity One - clethodim

Metastar 2E – mefenoxams

Phostrol, Rampart - phostrols

Pyramite/Nexter – pyridaben

Rimon – novaluron

2,4-D granules, Weedar 64

Fumigants

Basamid (dazomet) and Vapam (metam-sodium) are soil fumigants that can be used on cranberry beds. They can only be used if fruit will not be harvested and delivered for 12 months post-application. **DO NOT USE FUMIGANTS AS A SPOT-TREATMENT IF ANY VINES WITHIN A DIKED SECTION WILL BE HARVESTED.** If it is used on part of section, no fruit can be harvested or delivered from the entire (contiguous) section. If you are renovating an entire section, a portion of that section can be spot-treated with a fumigant. More information on the use of fumigants may be found in the “Planting New Cranberry Beds” Fact Sheet (<http://ag.umass.edu/cranberry/fact-sheets>). Contact the Weed Specialist if you have any questions about using these chemicals.

You must complete EPA fumigant training before applying any fumigant. You must get certified/pass the module on EPA's web site. As required by updated soil fumigant product labels, certified applicators must successfully complete an EPA-approved training program covering the new soil fumigant provisions. Basamid is listed under the name “dazomet” on the EPA web site. Please go to the EPA’s web site for more information:

<https://www.epa.gov/soil-fumigants/soil-fumigant-training-certified-applicators>

You must take Modules 1-4 plus the module specific to your use; Basamid (dazomet) is discussed in Module 7. Vapam is metam sodium (Module 8). The certification process is NOT regulated by MDAR; it is totally a federal EPA requirement. This is a NEW regulation.

Note: There is a provision that if you are already certified in a soil fumigation (sub)category and your state is listed with additional training option and requirements, you can bypass the training. Massachusetts is NOT one of these states! So you must take and pass the modules.

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CAUTIONS

1. Pesticide-treated bogs may need to be posted. Check labels. Workers and scouts should be notified prior to treatments, and informed about re-entry times. See CCCGA website for more current info on sign posting listed under pesticides:
<http://www.cranberries.org/growers/advisories.html>
2. **READ AND FOLLOW LABEL INSTRUCTIONS.** The label is the law! Current labels and MSDS can be found on the CDMS website: <http://www.cdms.net/Label-Database> Do not use a pesticide for control of a pest not on the label unless a specific recommendation is made by a person authorized to do so.
3. Make all pesticide applications in a manner to prevent contamination of streams, ponds, and public ways, and impound water as long as possible after applying.
4. Be aware of and adhere to guidelines regarding distances from site of chemical application to protected areas. Consider addition of drift retardants.
5. Many insecticides are highly toxic to bees. Check label and choose options that are least toxic.
6. Stored pesticides may deteriorate. Avoid freezing of liquid formulations. It is usually not advisable to use heldover materials in opened containers. Follow regulations of the MDAR Pesticide Program when disposing of pesticides and their containers.
7. **CONCENTRATE SPRAYS** may injure new growth, bloom, and small berries, particularly in hot, humid weather or if the emulsifiable concentrate (EC) content nears 50% of mixture.