

Carolyn Baker  
Falmouth Conservation Commission  
59 Town Hall Square  
Falmouth, MA 02540

August 22, 1996

Re: Charcoal filtration for treatment of pesticides releases

Dear Ms. Baker:

On July 27, 1996 you called the Buzzards Bay Project for an opinion regarding pesticide use on a cranberry bog owned by the Falmouth Conservation Commission and leased to Mr. Brian Handy. Specifically you requested an opinion as to the effectiveness of charcoal filters to remove pesticides relative to the effectiveness of impoundment of water after pesticide application. This question arose because it is impossible for water to be impounded at this bog after a pesticide application.

Your question, while quite general, is complex and can best be answered only indirectly. The use of pesticides on cranberry bogs is highly regulated at both the state and federal level. The Buzzards Bay Project believes that when these existing regulations are followed, the natural resources of the Town of Falmouth are generally protected.<sup>1</sup>

The term "pesticide" is used generally to include fungicides, insecticides, herbicides, and related biocides. These materials are used to control respectively, fungi, insects, and weeds, all of which may be considered "pests" in the setting of a cranberry bog.

At the federal level, the primary law governing the use of Pesticides is the Federal Insecticide, Fungicide and Rodenticide Act of 1947. (FIFRA) In Massachusetts, pesticide use is regulated by the Massachusetts Pesticide Control Act (MPCA), M.G.L. Chapter 132B. Regulations issued pursuant to the MPCA are contained in 333 CMR. Section 13 of 333 CMR sets standards for application of pesticides.

Pesticide use on cranberry bogs is considered normal maintenance activities, and are therefore exempt from the Wetlands Protection Act (WPA) "when conducted in accordance with federal and state laws" (310 CMR 10.04 Agriculture (b)2.). Since the Falmouth Wetland Regulations refer to the WPA definitions, this rule would probably apply to the Falmouth Wetlands Bylaw as well.

To have a pesticide application "conducted in accordance with state federal and state laws", the application of pesticide must be consistent with label directions. Specifically, it is a violation of FIFRA to use a pesticide in any manner inconsistent with its labeling. In fact, under "Directions For Use", pesticide labels will carry the statement "It is a violation of Federal law to use this product in any manner inconsistent with its labeling" (see enclosed label for Rodeo). If you review the labels of pesticides typically used on cranberry bogs, you will find that some require 48 hours or more of

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<sup>1</sup> In watersheds draining to nitrogen sensitive embayments, nitrogen from septic systems, agricultural land, golf course and lawns may need to be examined for cumulative impacts and incorporated into a comprehensive nitrogen management plan.

impoundment. These regulations may explain why the Barnstable County Superior Court made a ruling prohibiting the use of Diazanone on a particular bog that could not impound water. In contrast, the application of a pesticide on a bog where runoff is contained in a tail water recovery pond, even though the pond may exhibit the characteristics of a natural system, may meet the standards for impoundment.

In view of these regulations and definitions, it appears that the use of charcoal filtration cannot be substituted for a 48 hour impoundment required on a label. For those pesticides not requiring impoundment, the use of charcoal filters may have scientific merit, but any such project would need to be carefully reviewed for feasibility and wetland impacts (e.g. will a charcoal filter preclude fish migration, etc.).

Pesticides are designed to be safe to human health and minimize environmental impacts when used according to label directions. Interpretation of the standards for application and how a particular bog meets these standards is best left to the appropriate regulating state agency--the Pesticide Bureau of the Massachusetts Department of Food and Agriculture. This agency has on file all label directions for pesticides used in Massachusetts. These are indexed at the Pesticide Bureau by EPA registration number. If you wish to have a copy of the current label requirements for any pesticide (label directions may change periodically) you may request a copy from the pesticide Bureau if you provide them with the EPA registration number. Concerns about pesticide use can be brought to the attention of the Pesticide Bureau (Mr. Brad Mitchell @ 617-727-2863).

If you have any further questions, please do not hesitate to contact me.

Yours truly,

Joseph E. Costa, Ph.D.  
Executive Director