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October 4, 2013

Chuck Ross
Secretary
State of Vermont Agency of Agriculture, Food and Markets
116 State Street
Montpelier, VT 05620-2901

Dear Secretary Ross:

The Vermont Pesticide Advisory Council (VPAC) has taken the opportunity to review and discuss at length the Pesticide Use Impact Assessment (PUIA) for a *Demonstration Treatment of Hemlock Woolly Adelgid in Jamaica State Park* signed by the Deputy Secretary of the Vermont Agency of Natural Resources (ANR) on September 13, 2013.

The PUIA proposal from the Vermont Department of Forests, Parks and Recreation (FPR) is for basal trunk spray (bark treatment) of a limited number of trees using a registered pesticide product containing the neonicotinoid insecticide dinotefuran.

Although only 13 trees are currently intended for treatment (Barbara Schultz, FPR Forest Health Program Manager, personal communication, 9/24/13), VPAC has many questions regarding such use of neonicotinoids given numerous emerging concerns and uncertainties regarding potential environmental impacts.

Of particular concern is potential impact to bee populations. Breaking news from the state of Oregon indicates that recent use of dinotefuran may be associated with subsequent bee die offs. Reports include bark treatment of a deciduous tree species in late March 2013 with a bee die off reported in June 2013. The matter is under active investigation. In the interim, the Oregon Department of Agriculture has adopted a temporary administrative rule (OAR 603-057-0386) in effect June 27 – December 24, 2013 which states, “Any application, regardless of application method (including soil application & chemigation), of a pesticide product containing the active ingredient dinotefuran on plants is prohibited. This includes but is not limited to, application on landscape trees and shrubs, nursery and greenhouse plants, turfgrass, forests and agricultural crops”. Furthermore, recent research indicates prolonged or delayed exposure may occur as bees may collect and store pollen from treated trees as well as from other potentially impacted sources of forage.

Other areas of concern raised by VPAC include, but are not limited to the following:

- Differential toxicity to bees. The neonicotinoid family of compounds can be reviewed to determine if there may be a different compound that, while effective against Hemlock



Woolly Adelgid, is less toxic to bees (higher effect concentration) and/or does not concentrate as much in pollen (lower potential exposure).

- Potential for migration to nearby waters and potential toxicity to aquatic organisms including mysid shrimp. Neonicotinoids are considered to be highly mobile pesticides, and are highly toxic to mysid shrimp. While mysid shrimp do not occur in the proposed demonstration treatment watershed (West River/Connecticut River), they are part of the base of the Lake Champlain food web.
- Potential for migration due to drift, runoff and translocation via other means.
- The need for environmental sampling. If a demonstration is conducted, a companion environmental sampling effort could begin to help answer some pressing questions such as potential impact on subsequently produced conifer pollen and bee mortality, and potential movement to other sources of bee forage as well as movement to soil and surface waters.
- Further consideration of alternative methods of control including use of fungal agents and penetrating oils.

Historically, VPAC has not been extensively involved in the PUIA review process. However, the Vermont statute which establishes VPAC [Title 6: Agriculture Chapter 87: Control of Pesticides § 1102(d)(2)] specifies that a primary function is “To serve as the advisory group to state agencies having responsibilities for the use of pesticides as well as to other state agencies and departments.” At this time VPAC would like to take a more formal, active role in the PUIA process.

To this end, with support from FPR, the November 13, 2013 VPAC meeting will be dedicated to the topic of invasive forest pests including discussion of potential management options and the 2013 State of Vermont Forest Pest Action Plan. VPAC looks forward to working with ANR, FPR and other partners on an issue of such great importance to all Vermonters. Please let me know if you have any questions.

Respectfully,



Razelle S. Hoffman-Contois
Chair, Vermont Pesticide Advisory Council

cc: Deborah Markowitz
Justin Johnson
Michael Snyder
Sarah Vose