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COMMISSIONER

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DIRECTOR

To: Board of Pesticides Control Members
From: Mary Tomlinson, Pesticides Registrar/Water Quality Specialist
RE: FIFRA Section 18 request for use of HopGuard to control Varroa mites in honey bee colonies
Date: July 20, 2012

This FIFRA Section 18 request for the use of HopGuard (potassium salt of hop beta acids) to control Varroa mites in honey bee colonies is submitted at the request of Tony Jadczak, State Apiarist. Varroa mites have become a major pest of honey bees, causing more than 45% colony losses in Maine during 2010-2011. Enclosed are the above referenced Section 18 request, the container label, and the proposed Section 18 label for your consideration.

Varroa mites have developed resistance to two pesticides currently registered and the other registered pesticides cause bee mortality, provide inconsistent mite control, and/or have use limitations making them impractical for large commercial beekeeping operations. HopGuard, extracted from hops (*Humulus lupulus*), has demonstrated miticidal activity. In vivo studies have shown that HopGuard strips are effective in killing Varroa mites without harming bees.

Lebelle Hicks, Ph.D., DABT, reviewed the data and determined dietary risks to be negligible due to the lack of residue in honey and the proposed exemption from tolerance. Chemical resistant gloves are required, but protective eyewear is suggested to protect against the irritant effects of the hops beta acids.

Your package also includes the following documents for your review.

- HopGuard MSDS
- Letter of support from Tony Jadczak, State Apiarist
- Letter of Support from Erin MacGregor-Forbes, Pres., Maine Beekeepers Association
- Letter of support from Lloyd Schantz, BetaTec Hop Products, A Division of John I. Haas, Inc.
- Five studies:
 1. Calderone, 2009
 2. Floris et al., 2004
 3. Summatro et al., 2008
 4. Summatro et al., 2010
 5. vanEngelsdorp et al., 2010

Please review these materials and let me know if you have any questions.