



PAUL R. LEPAGE
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY
BOARD OF PESTICIDES CONTROL
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0028

To: Board of Pesticides Control Members
From: Mary Tomlinson, Pesticides Registrar/Water Quality Specialist
RE: FIFRA Section 18 recertification request for use of HopGuard to control Varroa mites in honey bee colonies
Date: March 20, 2014

This request to seek recertification of Maine's 2013 FIFRA Section 18, 13-ME-02, 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 Jadcak, State Apiarist. Varroa mites continue to be a major pest of honey bees in Maine.

Approval of this request will ensure beekeepers will continue to have another control option available in lieu of other products to which mites are resistant, as well as provide an organic alternative for use during honey production. 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.

The Section 3 label for HopGuard is expected to be approved by the EPA in early 2015, according to the registrant.

The attached recertification package includes the following documents for your review. Please let me know if you have any questions.

1. Final Report – Section 18 HopGuard 2013
2. Letter of support from Lloyd Schantz, BetaTec Hop Products, Inc.
3. Letter of support from Tony, Jadcak, Maine State Apiarist
4. HopGuard container label
5. Draft Maine Section 18 label with use directions

**2013 FIFRA SECTION 18 EMERGENCY SPECIFIC EXEMPTION
FOR THE USE OF HOPGUARD TO CONTROL VARROA MITES IN
HONEY BEE COLONIES IN MAINE**

Final Report

File Symbol: 13-ME-02

Tony Jadczyk, Maine State Apiarist
Mary Tomlinson, Maine Pesticides Registrar

Maine Board of Pesticides Control
Maine Department of Agriculture, Conservation and Forestry
State House Station 28
Augusta, Maine 04333-0028

March 1, 2014

**2013 Section 18 Emergency Exemption Final Report
for Use of HopGuard (potassium salt of hop beta acids) to Control
Varroa Mite, *Varroa destructor*, in Honeybee Colonies in the State of Maine**

This is a Section 18 Specific Exemption final report in compliance with § 166.32, Reporting and recordkeeping requirements for specific, quarantine, and public health exemptions.

The Varroa mite is a widespread pest in honeybee colonies, affecting adult bees and reducing honey production in Maine. HopGuard, containing potassium salt of hop beta acids, is an effective alternative among available control options, being an effective miticide while not affecting colony behavior.

(1) Total colonies treated and total quantity used under the exemption:

During the period of March, 2013 to December 31, 2013, approximately 4,975 honey bee colonies were treated with HopGuard (Beta acids) throughout Maine. This estimate is based upon the sale of 199 kits (9,950 strips) sold in the state during the period and an application rate of 2 HopGuard strips/hive. The total amount of active ingredient used was 19,104 grams (1.92 g ai/strip).

(2) Discussion of effectiveness of the pesticide in dealing with the emergency condition:

The efficacy of Hopguard for Varroa control was consistent with USDA and BetaTec reports. The material was lethal to exposed mites for approximately three days (while the beta acid soaked cardboard strips remained wet).

(3) A description of any unexpected adverse effects which resulted from use of the pesticide under the exemption:

There were no reports of adverse effects related to treatment of hives with Hopguard in 2013. Beekeepers were advised to refrain from treating hives in cold weather when bees are in tight cluster based on 2012 experience.

4) The results of any monitoring required and/or carried out under the exemption:

Random inspections immediately following HopGuard treatment verified good Varroa control. Subsequent treatments were warranted for hives actively rearing brood.

(5) A discussion of any enforcement actions taken in connection with the exemption:

No enforcement action was carried out under this exemption.

(6) Method(s) of disposition of a food crop, if required to be destroyed under an exemption:

No disposition was required.

(7) Any other information requested by the Administrator:

No other information was requested by the Administrator.



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February 6, 2014

Mary E. Tomlinson
Pesticide Registrar/Water Quality Specialist
Maine Board of Pesticides Control
28 State House Station
Augusta, ME 04333

Dear Ms. Tomlinson

BetaTec Hop Products (a division of John I. Haas, Inc.) is actively working with USDA-ARS to bring to market HopGuard (a Beta Acids rich fraction) for the control of the Varroa mite in the beehive. We fully support the Maine Department of Agriculture's request for a Section 18 emergency exemption for the use of our product.

BetaTec Hop Products, Inc. has committed to provide sufficient product, properly labeled, for this emergency use when it is granted by the EPA. We have submitted a Section 3 application to the EPA and would expect approval in early 2015.

We thank both the Beekeepers Associations and the State of Maine for their support in this endeavor. If you have any questions of me, please do not hesitate to let me know.

Best regards,

A handwritten signature in black ink, appearing to read "Lloyd C. Schantz". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Lloyd C. Schantz
Executive Vice President
BetaTec Hop Products, Inc.



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY
DIVISION OF ANIMAL AND PLANT HEALTH
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0028

WALTER E. WHITCOMB
COMMISSIONER

E. ANN GIBBS
ACTING DIRECTOR

PAUL R. LEPAGE
GOVERNOR

March 19, 2014

Mary E. Tomlinson
Pesticide Registrar/Water Quality Specialist
Maine Board of Pesticide Control
28 State House Station
Augusta, ME 04333

Dear Ms. Tomlinson,

On behalf of Maine's beekeeping industry and the agricultural commodities that rely upon honey bees for crop pollination purposes, I support a repeat of the Section 18 Emergency Exemption for HopGuard (beta acids) that was granted by the US-EPA August 3, 2012 and expired December 31, 2013.

Hopguard is an effective Varroa mite treatment that provides control consistent with studies conducted by the USDA and registrant, BetaTec Hop Products. The product offers beekeepers an alternative mite control that is both valuable for resistance management and an organic Varroa treatment alternative.

A repeat of this Section 18 Emergency Exemption is necessary so beekeepers have an alternative Varroa control in lieu of materials that now have wide-spread mite resistance (Apistan, CheckMite) and alternative organic Varroa mite control option that can be used while bees are producing honey.

A healthy beekeeping industry is essential for agricultural production in Maine and the U.S. for pollination purposes. Thank you for considering this matter.

Sincerely,

Anthony Jadczyk
State Apiarist



EMERGENCY EXEMPTION USE DIRECTIONS

EPA FILE SYMBOL XX-ME-XX

STATE: Maine
CHEMICAL: Potassium Salt of Hop Beta Acids (HopGuard®)
CROP / SITE: Honey Bees / All counties in the state of Maine
PEST: *Varroa destructor*
EFFECTIVE: Month Day, 2014 to December 31, 2014

PRECAUTIONARY STATEMENTS

Product may cause eye irritation – flood eyes with plenty of water if contact is made with eyes. Wearing protective eyewear when handling treated strips will reduce the potential for eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or smoking tobacco. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT

Applicators must wear chemical-resistant gloves when handling treated strips.

DIRECTIONS FOR USE

Package - Strips must be applied at the rate of three half strips per 2 lb. or 3 lb. package of adult worker bees. Cut strips in half and attach three half strips to the top of package so that the strips are hanging within the package. Place bees in the package after the strips are attached. The bees should remain in contact with the strips for at least 48 hours.

Colony - Strips must be applied at the rate of one strip per five deep combs covered with bees in each brood super or for example two strips per ten frame brood super (chamber) when all the combs are covered with bees. Strips are to be placed only in the brood chamber (not in the honey super). Folded strips must be opened and hung over one of the center brood frame with one-half of the strip on each side of the frame. If using a second strip, apply it to an adjacent center frame about four inches away from the first strip. Strips must be placed hanging between frames, and within the colony cluster, and not laid on top of the frames. Leave the strips in the colony for four weeks.

A maximum of six applications per year (twelve strips or approximately 23.04 grams of potassium salt of hop beta acids) per ten frame brood super (chamber) is allowed. This limit includes all applications to the package (if applicable) and to the colony. Application timing (usually during spring, summer or fall) should be based on the levels of Varroa mites observed in the colony. Users may not take honey and wax from the brood chambers, only from the honey supers. For optimal results, apply HopGuard® when little to no brood is present in the colony.

The use directions must be in the possession of the user at the time of application.

Any adverse effects resulting from the use of HopGuard® under this emergency exemption must be immediately reported to the Maine Board of Pesticides Control at 207-287-2731.

RESISTANCE MANAGEMENT

Using this product in rotation with another approved miticide with a different mode of action will decrease the potential for Varroa mites to develop resistance. If the strip remains in the hive more than 4 weeks remove.

Manufactured by: BetaTec Hop Products, Inc., A Division of John I. Haas, Inc., 1600 River Rd Yakima, WA 98902

efficient by nature™

HOPGUARD[®]

SECTION 18 SPECIFIC EXEMPTION

THIS IS AN UNREGISTERED PRODUCT AND MAY BE USED FOR DISTRIBUTION AND USE ONLY IN STATES WITH A VALID SECTION 18 EXEMPTION AUTHORIZATION. THE EXEMPTION IS EFFECTIVE FROM JANUARY 1, 2014 AND EXPIRES ON DECEMBER 31, 2014.

For use in beehives to control Varroa mites (*Varroa destructor*) on honey bees

ACTIVE INGREDIENTS:	BY WEIGHT
Potassium Salt of Hop Beta Acids.....	16.0%
INERT INGREDIENTS:	84.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

Product may cause eye irritation – flood eyes with plenty of water if contact is made with eyes. Wearing protective eyewear when handling treated strips will reduce the potential for eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or smoking tobacco. Remove and wash contaminated clothing before reuse.

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A maximum of six applications per year (twelve strips or approximately 23.04 grams of potassium salt of hop beta acids) per ten frame brood super (chamber) is allowed. This limit includes all applications to the package (if applicable) and to the colony. Application timing (usually during spring, summer or fall) should be based on the levels of Varroa mites observed in the colony. Users may not take honey and wax from the brood chambers, only from the honey supers. For optimal results, apply HopGuard when little to no brood is present in the hive.

Any adverse effects resulting from the use of HopGuard™ under this emergency exemption must be immediately reported to your State Department of Agriculture.

RESISTANCE MANAGEMENT

Using this product in rotation with another approved miticide with a different mode of action will decrease the potential for Varroa mites to develop resistance. If the strip remains in the hive more than 4 weeks remove.

STORAGE AND DISPOSAL

Unused strips should be stored in a tightly sealed, cool, dark area. Unused, unregistered product must either be returned to the manufacturer or distributor in unopened containers or disposed of in accordance with the Resource Conservation Recovery Act following the expiration of this emergency exemption.

NET CONTENTS

Each HopGuard™ kit contains 50 cardboard strips. Each strip is folded in half and contains 1.92 grams of potassium salt of hop beta acids, and the kit contains 96 grams (3.4 ounces) of potassium salt of hop beta acids.

Manufactured by: BetaTec Hop Products, Inc., A Division of John I. Haas, Inc., 1600 River Road, Yakima, WA 98902