



ARKANSAS
STATE PLANT
BOARD

Darryl Little
Director

P.O. Box 1069 ■ Little Rock, Arkansas 72203
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Phone (501) 225-1598
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February 10, 2015

To whom it may concern:

Please find enclosed the Section 18 Specific Exemption for the use of HopGuard II (hop beta acid) for control of the varroa mite, *Varroa destructor* in Arkansas honeybee colonies.

Also enclosed is the form to report Section 18 applications.

If you have any questions or need further information, please call me at 501-225-1598.

Sincerely,

A handwritten signature in cursive script that reads "Brandi Reynolds".

Brandi Reynolds
Assistant Director
Pesticide Division

(EMERGENCY EXEMPTION USE DIRECTIONS**EPA FILE SYMBOL 15-AR-03**

STATE: Arkansas
CHEMICAL: Potassium Salt of Hop Beta Acids (HopGuard®II)
CROP / SITE: Honey Bees / All counties in the state of Arkansas
PEST: *Varroa destructor*
EFFECTIVE: February 4, 2015 to December 31, 2015

- These use directions must be in the possession of the user at the time of application. All applicable directions, restrictions, and precautions on the product label must be followed.
- A report of each application must be filed with the Plant Board within 10 days of the application.
Reports may be mailed to: Arkansas State Plant Board, PO Box 1069, Little Rock, AR 72203 or faxed to (501) 312-7053.
- Any adverse effects resulting from the use of HopGuard™ under this emergency exemption must be immediately reported to the Arkansas State Plant Board at (501) 225-1598.

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. Retreat, as necessary, up to three times per year.

A maximum of three (3) applications per year (six (6) strips or approximately 24.0 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 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®II 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®II under this emergency exemption must be immediately reported to the Arkansas Department of Agriculture (501) 225-1598).

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 30 days, remove.

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

HOPGUARD® II

(Formulated as impregnated cardboard strips.)

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 FEBRUARY 4, 2015 AND EXPIRES ON DECEMBER 31, 2015.

For use in honey bee colonies to control Varroa mites (*Varroa destructor*)

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.

PERSONAL PROTECTIVE EQUIPMENT

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

DIRECTIONS FOR USE

Bee Package- Strips must be applied at the rate of three half strips per 2 lb. to 3 lb. package of adult worker bees. Cut strips in half at the fold 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 frames covered with bees in each brood chamber or two strips per ten frames covered with bees in the brood chamber. 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 frames with one-half of the strip on each side of the frame as shown in the pictogram. 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 strip(s) in the colony for 30 days. Honey bees tend to chew the cardboard strips; however, remove any remaining strips after 30 days. Retreat, as necessary, up to 3 times per year.

Application Rate- Strips are saturated with liquid and should be applied "as is". Do not remove the liquid from the strip. A maximum of 3 applications per year (6 strips) or approximately 24.0 grams of potassium salt of hop beta acids per ten frames of bees in the brood chamber is allowed. This limit includes all applications to the bee package (if applicable) and to the colony. Application timing 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. HopGuard is not temperature sensitive and can be applied in the brood chamber during honeyflow. Honey supers can remain in the colony during treatment. For optimal results, apply HopGuard®II when little to no brood is present in the hive.

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

RESISTANCE MANAGEMENT

Varroa mite populations can become resistant to pesticides. Resistance development is affected by both the frequency of application and rate/dose of application. After an application, the more susceptible pests die and the less susceptible ones survive, mate with other survivors, and reproduce. Most of the ensuing offspring inherit the parental resistance. Additional applications continue to kill only the remaining susceptible individuals. Continued reliance on a single class of miticide or miticide with the same mode of action will select for resistant individuals which will dominate the mite population in subsequent generations. In order to prevent resistance development and to maintain the usefulness of individual pesticides the adoption of an appropriate resistance management strategy is vital. The Mode of Action (MOA) for hop beta acids is undefined at this time; however, it may cause death by asphyxiation by penetration of the pest's thin exoskeleton.

To delay resistance:

- When possible, rotate the use of miticides to reduce selection pressure as compared to repeatedly using the same product, mode of action or chemical class. If multiple applications are required, use a different mode of action each time before returning to a previously-used one.
- Base miticide use on Integrated Pest Management (IPM). This includes proper pest identification, monitoring for locality specific economic threshold and economic injury levels, record keeping, and utilizing all available control practices (cultural, biological and chemical).
- Maximize efficacy by following all label instructions including dosage and timing of application.

- Continually monitor treated populations for development of miticide resistance and report suspected resistance to local extension specialists.
- Contact your local extension specialist for additional pesticide resistance/management recommendations and/or IPM recommendations for your specific location.
- For further information or to report suspected resistance contact your local extension specialist.
- Remove strips if still in hive after 30 days.

RESTRICTIONS

- For in-hive use only.
- Maximum rate = 2 strips per brood chamber per application (i.e., one strip per five frames covered with bees).
- Remove remaining strip(s) after 30 days.
- Do not use HopGuard®II more than 3 times per year.

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®II kit contains 24 cardboard strips. Each strip is folded in half and contains 4.0 grams of potassium salt of hop beta acids, and the kit contains 96.0 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

efficient by nature™

Report of Section 18 Application

Pesticide: HopGuard

Applicator's Name: _____

Applicator's Address: _____

Farmer's Name: _____

Farmer's Address: _____

Number of Hives Treated: _____

Strips or dose per Hive: _____

Location of Hives: _____

Date of Application: _____

Time of Application: _____

Mail reports to the Arkansas State Plant Board, PO Box 1069, Little Rock, AR 72203
or Fax to (501) 312-7053. Reports must be submitted within 10 days of application.