

**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*)

<b>ACTIVE INGREDIENTS:</b>	BY WEIGHT
Potassium Salt of Hop Beta Acids.....	16.0%
<b>INERT INGREDIENTS:</b> .....	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 or 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

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