

Simpson's Bee Supply

15642 Tiger Valley Rd. Danville, Ohio 43014 740-599-7914

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Distributed by:

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Ordering Information: 2008

8 oz. Bottles available for \$14.00

16 oz. 22.95 – 1 gallon 130.00 – 5 gallon \$450.00

Check, Money Order or Credit Card Accepted

Honey B Healthy (HBH) helps promote healthy vigorous hives when used as a feeding stimulant. A 16 oz. Bottle makes up to 24 gallons of solution at one teaspoon (5ml) per quart of 1:1 sucrose or fructose solution. Use as a feeding stimulant for late winter, early spring, and during dearths of nectar. Also, add to your feeding mix to help build up packages, nucs and swarms.

Helpful Benefits

- Calms bees when used as a spray.
- Helps build-up colonies when used as a feeding stimulant during late winter, early spring, and during dearths of nectar.
- When added to formic acid treatments and/or sprayed on the bees, helps prevent queen losses.
- When introducing new queens helps prevent balling when sprayed on caged queen and bees.
- When sprayed on new foundation helps encourage the bees to draw out the new comb foundation.
- Add to your feeding mix to help build up bee packages and nucs.

Helps promote healthy vigorous hives. The 8 oz. Bottle makes up to 12 gallons of solution at one teaspoon (5ml) per quart of 1:1 sucrose or fructose solution. This recommended one-teaspoon dose could be increased to two-teaspoons or decreased if desired by the beekeeper. We have observed up to a two-teaspoon dose works well. Use as a feeding stimulant for late winter, early spring, fall feedings and dearths of nectar. Furthermore, add to your feeding mix to help build up packages nucs and swarms. Essential oils are volatile and may evaporate from open containers. We suggest keeping the concentrate and solution mix tightly sealed when not in use. We have found feeding with inverted jars above the brood nest prevents evaporation; in addition, using a jar with a large lid area with many holes helps in a faster consumption of the solution, which can benefit the bees.

Our concentrate can be kept in syrup solutions in tightly sealed containers and fed when needed during nectar shortages to help maintain healthy productive colonies for pollination and honey production. Also, adding a little Honey-B-Healthy along with a little honey to a one pound grease patty helps in the consumption of the patties by the bees. **We recommend our Mineral Salt/Wintergreen grease Patty for best consumption and colony benefits.**

Lemongrass oil contains some of the same natural pheromones that bees use to attract workers (such as geraniol). When this oil is applied to the bees and new-caged queens, they become calm and all having the same natural odor. We were having about 20 - 25% queen losses using straight formic acid until we began adding 10%

HONEY B HEALTHY

Feeding Stimulant with Essential Oils

(Contains Lemongrass and Spearmint Oil Concentrates)

This product and information sheet were developed by Bob Noel and Jim Amrine

HBH to our formic acid mix. Making a 45% formic and 10% HBH mixture at 65ml to 85ml doses (depending on number of supers being treated) using our new fumigator we had 90% + kill of Varroa in less than 24 hours in most colonies tested. An 82-colony trial was done at WVU, Cumberland, MD and Redding, CT, which resulted in only two queen losses. This loss of queens is within the normal loss of queens during normal late summer and early fall conditions, since the superseded queens may have been failing. More research is needed to determine exact queen losses.

Our Four-Fold Integrated Pest Management Protocol:

We are conducting experiments on using the following methods to control *Varroa* mites at WVU (all of these methods are explained and illustrated at this website): <http://www.hereintown.net/~rnoel/>

1) **Screened bottom boards:** [1/8" or 3.15 mm screen] with at least 3/4" [1.9cm] of dead space under the screen. We made an opening in the back of the bottom board for inserting poster-boards [white demonstration board, coated with Vaseline or petroleum jelly]. This technique takes advantage of the natural mite fall that occurs throughout the year. If you have no sticky material under the screen, mites will crawl back up onto the bees; they have no problem crawling as high as 4 inches. Sand works well in place of sticky material--the mites die on sandy surfaces. Some beekeepers have nothing under the screens and the mites fall down into the grass where they cannot get back up to the bees.

2) **Grease patties containing wintergreen and mineral salt:** Formula: 4 lbs [1.8 kg] of sugar, 1.5 lbs [.68 kg] of hydrogenated vegetable oil, 1/2lb [.227 kg] of honey, and 1/3 cup [.072 kg] of blended trace mineral salt, and 1.6 ozs [45 cc] of natural or synthetic wintergreen oil; one batch will treat about 8-10 hives, depending on number of brood chambers, size of patties, etc. We place 5 small patties (about 2 oz. each) on top of each brood chamber and sometimes a 1/2" [1.27 cm] "roll" across the entrance about 3/4" [1.9 cm] back in (rain will wash it away). We find that putting the grease patties on in June and leaving them on all year gives good knock down of mites [doubles or triples the natural mite fall through the screened bottom boards] and prevents the mites from building up to such high levels. When the grease patties are used consistently [replaced every 2 weeks or so during the summer], we have observed very few tracheal mites and have not had any losses to these mites for the past three years. *Varroa* mites seldom exceed infestation of 5 cells per 100 in colonies that rapidly consume the patties along with screened bottom boards. We keep the grease patties on all winter; they need to be checked monthly or so.

3) **Feeding Honey-B-Healthy.** We use Honey-B-Healthy in early spring and during periods when no nectar is available. It is made with lecithin, sodium lauryl sulfate, water, lemongrass oil, and spearmint oil. Two teaspoonfuls in a quart of 1:1 sugar syrup delivers a total of one cc of both essential oils; the essential oils are evenly distributed throughout the syrup. Honey-B-Healthy helps produce rapid build up of bees helping to keep them healthy even with the presence of mites and the pathogens they carry. In addition, using 4 teaspoons in a quart of one to one sugar water of Honey-B-Healthy as a spray instead of smoke helps calm the bees, and spraying caged new queens and bees with Honey-B-Healthy helps with queen acceptance during cage introduction and reduces balling during direct release when sprayed on new queen and bees. It also helps

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to reduce stings: mix a little on your hands and watch the difference in bee behavior-very few or no stings at all. Acts as a bee calmer when sprayed on the bees. When sprayed on new foundation helps encourage the bees to draw out the wax foundation or new plastic comb.

Honey-B-Healthy can cause robbing during times of extreme dearths of nectar, especially during the fall. If this occurs we suggest feeding during evening within the hive and reduce the entrance to prevent robbers from entering.

4) **Formic Acid Honey-B-Healthy Fumigator:** We have been experimenting with formic acid treatments. **Warning: Please be aware, this is not a recommendation for beekeepers to apply formic acid to their hives to control mites. Please contact your state apiarist for information on legal methods for controlling mites.** We made 20 formic acid fumigators for treating hives with high mite numbers. We use an absorbent pad [Kendall undergarment pad cut to size, available from hospital supply stores or drugstores] at the top of the hive, protected from the bees by a plastic or aluminum screen on the underside, a heavy plastic sheet or aluminum flashing on the upper surface. [a sandwich of three layers, with the same x-y dimensions as a brood chamber] and spaced 3/4" [using wood molding] above the top bars of the upper brood chamber. Bee ways, of 3/8" (.95cm) are left on the sides of the fumigator. We pour 2.7 ozs. (80ml) of 50% formic acid, mixed with 10% Honey-B-Healthy [mixed fresh each time] onto the pad and place it on top of the brood chamber, with the absorbent material down. The amount of formic acid mix used depends on the number and depth of the brood chambers; eg., we use 2.7 ozs (80ml) for a single deep chamber, more for double Illinois chambers [2.9 ozs or 85ml], and slightly more for a deep + shallow [3 ozs or 90ml], etc. [We manage 80 WVU colonies in two intermediate depth brood chambers per hive, thus we use 2.9ozs (85ml)]. The fumigator is placed on the hive, on the upper brood chamber for about 16 hrs during warm to mild weather (19-30°C; 65-86°F). We reduce the entrance to 3/8" [.95cm] x 3.5" [8.9 cm] at the center. The bees quickly begin fanning the air through the brood nest and out of the small entrance. You can smell the formic acid coming out of the center entrance.

The only draw back is a loss (50 or more) of some newly emerging young bees. This loss is minimal considering the thousands of bees saved due the mite kill in the cells. Observing this loss of these newly emerging bees is a good indication of a good mite kill in the cells.

Note: Liquid Formic Acid is not approved for use in the US. This information is provided for countries where Liquid Formic is approved and for researchers who want to try this method. For more information on formic use contact your State Apiary Inspector for approved treatments for honeybee colonies.

We always make up the solution in an open, outside area or in a fume hood, and we use a hydrometer to obtain exactly 50% (sp. grav. = 1.110). We use a hydrometer because we have found considerable variation in strength of formic acid in containers we purchased; some were off as much as 30%. This may be one reason that published reports give variable results for the use of formic acid. One must be aware too that formic acid obtained from some commercial sources may contain heavy metal contaminants--these could be harmful to the bees, to humans or to the environment. Always inquire about the possibility of heavy metal contaminants.

We believe this new method of applying FA is effective for the following reasons: We have an air space just above the upper brood chamber; heat from the brood rises into this air space. The upper plastic or aluminum sheet prevents this warm air from being lost to upper supers. (We kept supers on during treatments in order to be able to test for FA in the honey above the fumigator). The FA is much heavier than air; so it has a tendency to sink, not rise. This is probably why so many investigators had variable results when placing pads of FA on the bottom board. So, the heat rises from the brood, activates the FA in the absorbent pad, causing evaporation.

The bees respond with a roar of fanning, and the air circulates through the brood frames and eventually exits the small entrance opening (3/8"x3.5"). The circulated air is warm (90°F); the FA penetrates capped cells, killing mites inside, but not the brood at the doses we used. High doses will kill bees at all stages. Within 24 hours virtually all FA is gone and the fumigator can be removed. We saw in all colonies, including 12 previously treated with Apistan, that mite drop occurred at a high daily rate for 13 days. Some colonies produced counts exceeding 3,000 mites on a single board in 3 days. This number of 13 days (16 days for drones) corresponds to the number of days required for capped brood to complete development and exit the cells; as bees exit the cells, dead mites fall between the frames through the screened bottom, onto the detector board below.

Note: Liquid Formic Acid is not an Approved Miticide in the U.S.A. Contact your State Apiary Inspector for approved treatments for Parasitic Mite control in honey bees colonies.

For more information on Honey-B-Healthy and our new Four-fold treatment protocol please visit: <http://www.hereintown.net/~rnoel/>

TESTIMONIALS

"I fed Honey-B-Healthy to seven swarms during the spring of '99" and had never seen colonies buildup so rapidly and draw out such beautiful comb." Also, the brood cappings were nicely rounded with a light color with healthy bees hatching."

Tom Sisler

Former Bee Inspector

Oldtown, MD, September 2000

"I ordinarily don't use smoke except when I encounter a colony which is excessively defensive. In this situation, I obtain better results with H-B-H syrup spray than with smoke. I ordinarily introduce queens with a Thurber Long Cage but when I used direct introduction with H-B-H syrup spray, the queen was accepted immediately."

Dan Hendricks

Hobbyist Beekeeper

Western Washington State, November 2000

"I fed essential oils (wintergreen and spearmint) along with Apistan to colonies on the verge of collapse from Varroasis for 21 days. After the combination treatment the colonies were almost varroa free and were healthy."

Harry Mallow

Former Bee Inspector Cumberland, MD, September 2000

"I really do believe in HBH along with regular use of wintergreen grease patties - they are the backbone on reviving and sustaining honey bees at my apiary here in the Mountains of Maryland. They work wonders in maintaining healthy colonies. The HBH stimulates the colonies while the wintergreen grease patties control the mites."

Becky DeWitt Kitzmiller, Maryland, December 2000

"I use the HBH at 1 teaspoon to a quart and find the bees readily draw out comb on plastic frames faster than they will on wax foundation fed regular sugar syrup. I also requeened a nasty hive of Buckfast and used HBH 4 teaspoons per quart to calm the hive and they accepted the new queen readily in direct release."

Jeff Longstaff Forest, OH, December 2000

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Feeding doses for Honey Bee Healthy: (HBH)

Recommended dose 1 tsp per quart or 1 quart per 55 gallons syrup.
Maintenance dose to keep colonies healthy: 1/2 tsp per quart or 1 pint per 55 gallons. A lot of beekeepers are using this dose instead of the recommended dose.

Drenching doses of HBH:

4 tsp. per quart or 1 gallon per 55 gallons of syrup

The 16 oz. bottle makes up to 24 gallons of solution at one teaspoon (5ml) or 48 gallons at 1/2 teaspoon (2.5ml) per quart of sugar/water solution. This recommended one-teaspoon per quart dose could be increased to a two-teaspoon maximum feeding dose and reduced to a 1/2 tsp. per quart minimum dose. Essential oils are volatile and may evaporate from open containers and feeders. To avoid evaporation, we recommend closed-type feeders. We suggest keeping the concentrate and solution mix tightly sealed when kept for extended periods of time. If feeding in open barrels, feed during times of nectar dearth to allow for a rapid consumption of the mix.

NEW! Some Commercial beekeepers have been using a new method of applying Honey-B-Healthy®, calling it the “Drenching” or “Dousing” method. They use one-gallon (some even more) of Honey-B-Healthy® per 55 gallons (four teaspoons per quart) in 1:1 sugar syrup, applying one-cup of the mix to the brood area by spraying or drizzling the mix on the bees and between the brood frames. They use this method three times, three to four days apart on failing colonies or one dose each time they enter the colony. Also, beekeepers have used the 1-pint per 55-gallon syrup dose calling it the maintenance dose and found to have the same affect as the recommended dose.

Cost breakdown for feeding at the \$450.00 (\$90.00 per gallon) five-gallon pail price equates to \$0.40 cents per gallon of feeding mix at the recommended dose of one quart per 55-gallons and \$0.20 cents per gallon at the maintenance dose of one pint per 55-gallons to help keep colonies healthy which many commercial beekeepers are now using in place of the recommended dose. The Drenching Method equates to \$0.10 cents per eight-ounce cup treatment or \$0.30 cents for the three treatments at the one-gallon per 55-gallon sugar water mix. Thus, the \$1.00 or less per colony treatment is more than worth the outcome of colonies bursting with bees making several more pounds of honey and bringing you a top Pollination price.

To order HONEY B HEALTHY please visit: <http://www.simpsonsbeesupply.com/index.html>