FOR TREATMENT OF VARROOSIS

CAUSED BY VARROA DESTRUCTOR IN HONEY BEES (APIS MELLIFERA)

EXTENDED SHELF LIFE

FORMICPRO

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From Nature, to Nurture.

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Healthy Bees. Healthy Planet.

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FORMIC PRO™: WHAT ARE THEY?

Formic Pro™ are formic acid polysaccharide gel strips for the treatment and control of varroosis caused by the varroa destructor in Honey bees.
Formic Pro™ are certified organic and can be used with honey supers. The treatment is placed inside the heart of the hive for a 1 week period with efficacy ranging between 83-97%.[1]

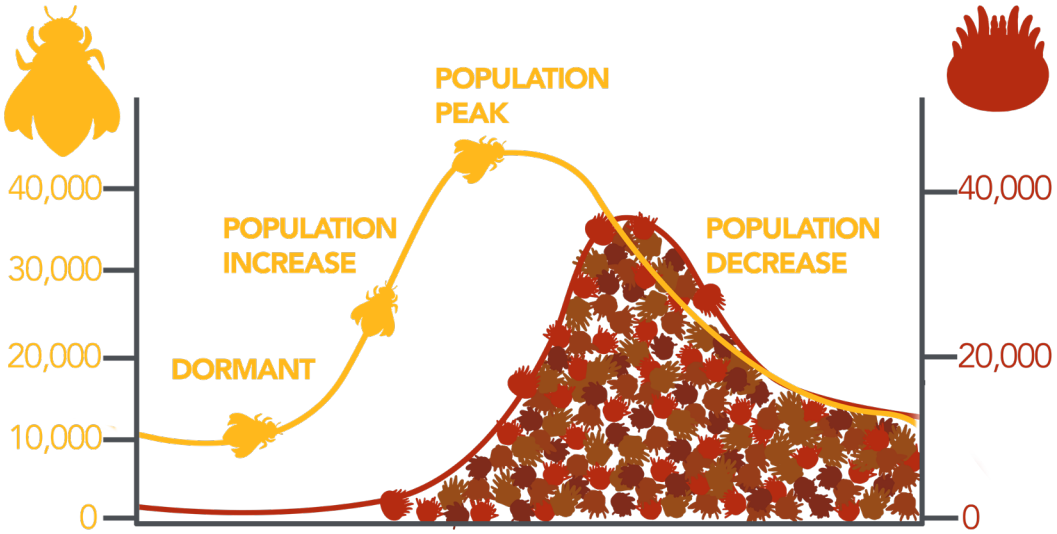
WHY TREAT FOR VARROA?

Varroa mites are a parasite of Honey bees that weaken and transmit viruses to Honey bees. They reproduce under the brood cap and feed off the developing bee. When the baby bee emerges from its cell, more mites emerge with it, and transfer to other brood cells on the backs of adult bees. Due to the exponential nature of varroa reproduction, colony infestation levels can quickly get out of control. Viruses accumulate in the colony, and higher varroa levels further weaken the bees, rendering them unable to survive.

If climbing numbers of varroa are not adequately controlled and controlled early, the bees that make up the winter population of the colony may go into winter sick, and be less likely to survive, particularly if they are also compromised by pesticide exposure.[2]

Honey bees are social and travel between hives. Naturally, Varroa mites are easily transferred from one colony to another. Strong colonies rob weaker colonies that are dying from varroa infestation. Furthermore, varroa infested colonies will disperse to find new homes, bringing with them the Varroa mite. As a rule of thumb, in colonies with brood, mite populations double about once a month -- and even quicker when the colony has large amounts of drone brood, or when varroa are transmitted from neighboring colonies.[3]

VARROA MITES & COLONY SEASONAL PHASES



It is highly recommended to monitor mite levels monthly during periods of brood rearing and treat when local thresholds are reached. Treat during population *increase* to protect the bees going into the honey flow. Treat during population *decrease* to protect the bees that will make up the winter cluster. In warmer climates additional treatments may be necessary due to longer brood rearing time. Missed treatments can lead to excessive varroa loads and may require more than one treatment.

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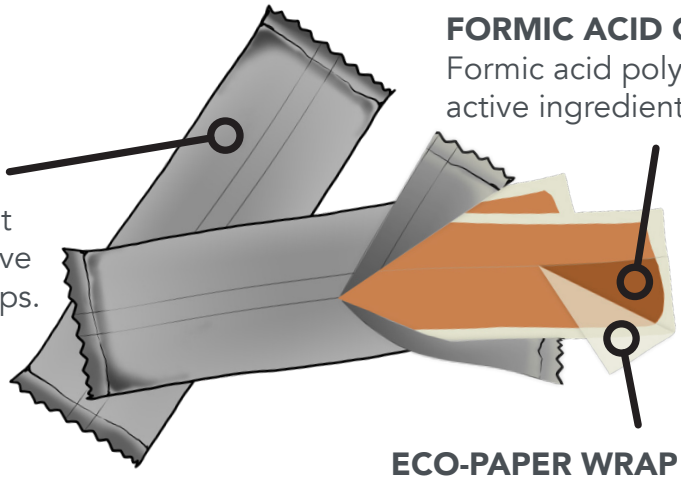
WHY FORMIC ACID?

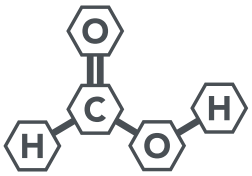
The founders of NOD decided to develop products that used formic acid as the active ingredient because it was seen as having potential to be a sustainable miticide that, when properly formulated, could control the three parasitic mites of economic significance to the honey bee, Varroa Destructor, Trachael and Tropilaelaps, leave no residues in the honey, wax, or hive components, protecting the image of honey as a wholesome food.

CERTIFIED INPUT FOR ORGANICS bio gro NZ CERT

OUTER SACHET:
Contains 2 strips. Cut open, carefully remove and separate the strips.



FORMIC ACID GEL MATRIX:
Formic acid polysaccharide gel strip. The active ingredient remains stable over time.



ECO-PAPER WRAP WICK: DO NOT REMOVE
Biodegradable paper wrap designed to act as a wick to control the release of the formic acid vapours over the 7 day treatment period.

BEST MANAGEMENT PRACTICES

MONITOR MITE LEVELS MONTHLY
Mites can quickly overwhelm and kill an entire colony if not monitored and managed from earlier in the season. Colonies with heavy mite infestations suffer from viruses and diseases transmitted by varroa, which can lead to colony crash.

KEEP BEES WELL FED AND HEALTHY
Well fed, healthy bees are stronger and can manage treatment better. Make sure your bees are fed before treatment and do not feed during treatment.

1. FEED **2. TREAT** **3. SPLIT**

BEES ARE SOCIAL, BE AWARE OF MITE REINFESTATION
Heavily mite infested, crashing colonies, including feral colonies, can be robbed out by strong healthy colonies causing mite reinfestation and reoccurring high mite levels. Traveling hives are subject to a larger area of possible crashing colonies.

READ & FOLLOW LABEL GUIDELINES
Follow all application instructions to achieve best results.

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- **HIGH EFFICACY: KILLS MITES UNDER THE BROOD CAP**
- **ALL NATURAL INGREDIENTS**
- **NO RESIDUES**
- **BIODEGRADABLE**
- **READY TO USE**
- **NO RESISTANCE**
- **EXTENDED SHELF LIFE**
- **QUICK TREATMENT**

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TREATMENT CHECKLIST

FEED PRIOR TO APPLICATION: Colonies need to be well fed prior to treatment. Desist feeding during the 7-day treatment period.

FOR HONEY: Maximize healthy colony populations by treating with Formic Pro™ 4 to 6 weeks before main honey flows. Have extra supers on to give bees a place to move up and expand.

FOR OVERWINTERING: Treat at end of the honey flow, while the last super is still on, add additional boxes if bees do not have room to move up and expand. 2-3 brood cycles before Queen goes off-lay.

BEFORE SPLITTING: Treat 2 weeks before. (1. FEED 2.TREAT 3.SPLIT)

TEMPERATURE: Between 10°C and 29.5°C on day of application. Maximum temperatures of should not reach above 33°C for the remainder of the treatment. Bees need to be flying regularly during daytime highs, therefore it should not be raining during the first three days of treatment.
Nighttime temperatures below 10°C are acceptable.

VENTILATION: Full width of hive, minimum 1.3 cm high. If using bottom boards with limited entrances, set-back second box by 1.3 cm to give fresh air access. Screen bottom boards should be closed off or anticipate a decrease in efficacy due to Formic Acid being heavier than air. Upper entrances and Screen bottom boards are not seen as additional or sufficient ventilation sources.

TREATMENT OPTIONS

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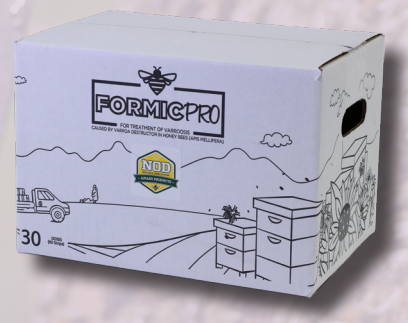
WHERE TO PURCHASE?

FORMIC PRO™ IS AVAILABLE THROUGH BEEKEEPING SUPPLY STORES. FOR A FULL LIST OF DISTRIBUTORS VISIT NODGLOBAL.COM.

2 DOSE

10 DOSE



30 DOSE

STORE FORMIC PRO™ OUT OF DIRECT SUNLIGHT FOR THE FULL

24-MONTH SHELF LIFE.

FREEZING THE PRODUCT IS ACCEPTABLE HOWEVER, DOES NOT EXTEND THE SHELF LIFE.

PRODUCT OF CANADA

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Sources
[1] VanderDussen, David. "MAQS+ vs. Mite Away Quick Strips Efficacy Fall 2016" NOD Apiary Products. Ontario, Canada. 2016.
[2] "The Importance of Fall Varroa Management." Ontario Beekeepers Association, n.d. Web. 21 Oct. 2016. *http://us6.campaign-archive1.com/?u=-fa6a231c0128230357099bec1&id=bdcf98b476&e=e6e3a4a37c*
[3,4] "TOOLS FOR VARROA MANAGEMENT - Bee Health Coalition." Honey Bee Health Coalition. N.p., n.d. Web. 21 Oct. 2016. *http://honeybee-healthcoalition.org/wp-content/uploads/2016/03/HBHC-Guide_Varroa_Interactive_18FEB2016.pdf*