

norroa™



Long-lasting and effective new Mode of Action for control of varroa mites

A new and effective approach to varroa mite control

Developed and tested over the course of 10+ years, Norroa™ has proven to be an effective new tool for controlling varroa mites. Norroa™ has shown long-lasting varroa control without harming bees. Multiple years of field trials demonstrate up to 18 weeks of mite control with one treatment. These pouches should be placed on top of frames or the bottom board, leaving a 1/2-inch space for bees to access the pouch.

Norroa™ is powered by vadescana, a new Mode of Action (MoA) for beekeeping (IRAC Group 35) based on RNAi. It is designed to specifically target varroa mites and works by stopping the production of mite offspring.



With Norroa™

- 1** Queen lays eggs in brood cells.
- 2** Workers feed bee larvae brood food containing Norroa™, thereby exposing mites to active ingredient.
- 3** Norroa™ targets a specific mite protein, which stops the production of mite offspring.
- 4** Bee pupae develop normally, allowing them to reach adulthood unharmed.

Without Norroa™

- 1** Queen lays eggs in brood cells.
- 2** Workers feed bee larvae.
- 3** Varroa mites lay eggs multiple times, doubling their population every four weeks.
- 4** Bee pupae reach adulthood weakened and often carrying diseases from varroa mites.

Key benefits:



Long-Lasting

Up to 18 weeks

Maintained less than three mites per 100 bees for up to 18 weeks in field trials conducted by experienced commercial beekeepers



Resistance Management

New mode of action

Novel Mode of Action (MoA) makes it a great tool for resistance management and extending the longevity of active ingredients currently available to beekeepers



Effective

No varroa mite offspring

In lab studies, foundress mites exposed to the active ingredient in Norroa™ had no offspring



Flexible

Wide temperature range

It can be applied at any working temperature, as long as it's safe to open the hive



Boosts Winter Survival

Up to 75% survival

Up to 75% winter survival in our field trial, almost twice the winter survival rate compared to leading chemical treatment



Bee Health

Specific to mites

No negative impact observed on larvae, adult bees, or queens



Easy to Apply

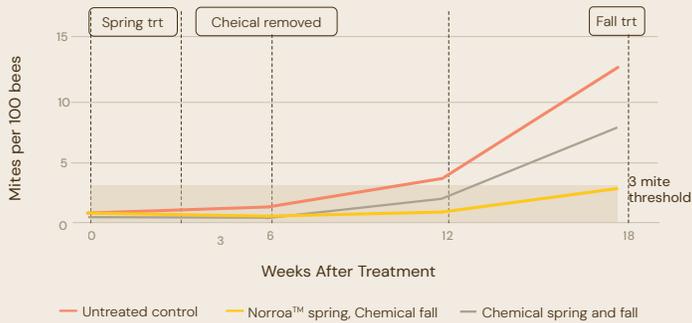
No measuring or mixing needed

Just peel back the sticker and place pouch on top of frames or the bottom board, leaving a space of 1/2 inch for bees to access the pouch

Apply Norroa™ when mite levels are low

For best results, use Norroa™ during periods of low mite pressure to support long-lasting control and healthier hives.

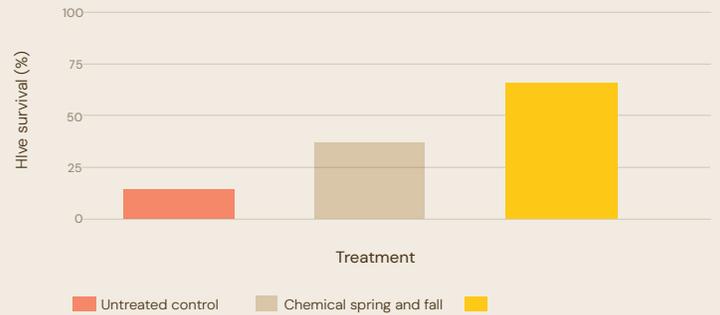
Spring treatment provides long lasting mite control



Long-lasting mite control

When applied before honey flow, Norroa™ provides longer and more effective mite control. It singularly maintained mite numbers below the 3 mites/100 bees threshold until the fall treatment was applied.

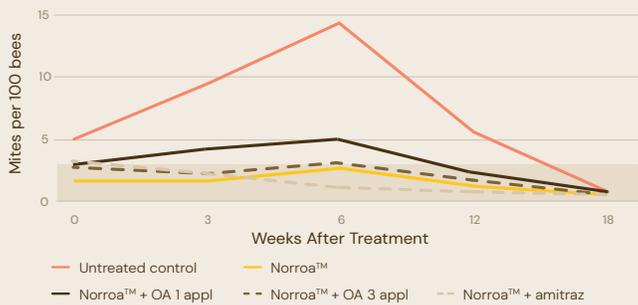
Norroa™ significantly boosts overwintering survival



Boost winter survival

Norroa™ treatment in the spring results in significant improvement to overwintering survival compared with chemical control and untreated control.

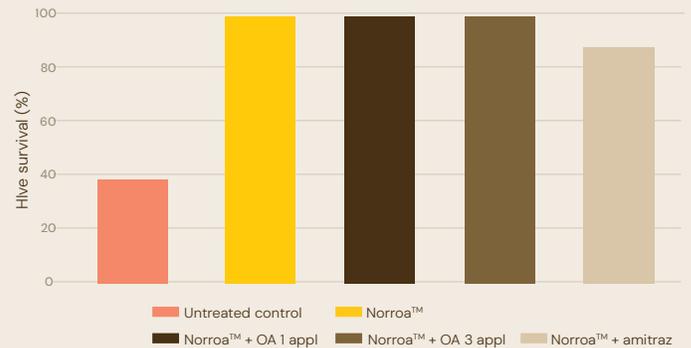
Norroa™ fall treatment is safe and effective in controlling varroa mites



Safe and effective all year

Norroa™ provides dependable mite control through the fall. All treatment options consistently kept mite levels lower than untreated hives—helping your bees stay healthy and strong as they prepare for winter.

Norroa™ fall treatment supports winter survival



Supports hive survival

Norroa™ fall treatments help your bees prepare for winter—supporting stronger overwintering and healthier colonies come spring.

Contact us to learn more:

norroa@greenlightbio.com

Eric Walgren

Regional Sales and Marketing Lead for Bee Health

Adam Pachl

North American Technical Manager for Bee Health



© 2024 GreenLight Biosciences, Inc., a wholly-owned subsidiary of GreenLight Biosciences Holdings, PBC.

THE INFORMATION PROVIDED HEREIN IS BASED ON FIELD DATA TO DATE AND ACTUAL RESULTS MAY DIFFER. ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.