

# Dedicated to Improving Bee Health

Our mission is to provide safe, innovative, and sustainable solutions for beekeepers to protect their businesses.



Contact Us

844-483-2526

www.dalan.com

210 Spring Street Athens, GA 30602 The World's First Honeybee Vaccine

Now approved by the USDA for vaccination of honeybees against American Foulbrood disease.



Dalan

# The Product

Paenibacillus Larvae Bacterin

### Our first vaccine is developed for **American Foulbrood (AFB)**.

It is conditionally licensed and regulated by the USDA-CVB.

## Our vaccine has passed all applicable regulations for safety and efficacy.

#### The product is:

- Non-Chemical
- Non-GMO
- Organic

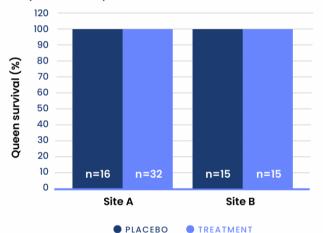


## **Proven Safety**



## **Queen Survival**

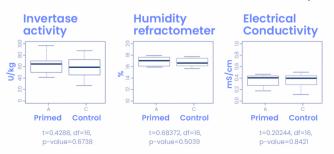
Vaccination shows no negative impact on queen fitness.



Dickel F, et al. (2022) The oral vaccination with Paenibacillus larvae bacterin can decrease susceptibility to American Foulbrood infection in honey bees—A safety and efficacy study. Front. Vet Sci. 9:946237. doi: 10.3389/fvets.2022.946237

## **Honey Quality**

# Vaccination shows no negative effect on honey.



Leponiemi et al., in prep. Courtesy Dr. Freitak Lab

# How it Works

1. The vaccine is mixed with sugar feed and fed to nurse bees caged with a queen.

2. The vaccine particles are digested and incorporated into the royal jelly, which is then fed to the queen bee.

3. The ingested vaccine is transported to the queen's ovaries, and exposed to the eggs. Developing larvae are now primed, or vaccinated, against the disease.

#### Learn more at

www.dalan.com/science



