

Saving The Bees From Bacterial Disease

Universidad del Desarrollo



American foulbrood (AFB) is a fatal bacterial disease of honeybees, which is caused by *Paenibacillus* larvae. Although AFB is not highly contagious, the bacterial spores can spread easily between hives through beekeeping practices, such as when equipment is exchanged or bees move from infected combs.



However, beekeepers have been less worried about AFB since the creation of Oleuropein Bee, a significant advancement in preventing and treating bacterial infections, including AFB. This natural biocide is a combination of a natural olive leaf extract and carrier; this allows the plant extract to be administered in the beehive to inhibit the growth of the *Paenibacillus* larvae bacteria, including its vegetative and spore state.

Oleuropein Bee is effective in preventing and treating AFB, in addition to being sustainable and safe. Unlike antibiotics, Oleuropein Bee does not generate resistance or leave toxic residues in honey, preserving the quality and purity of the honey. Oleuropein Bee also prevents the germination of *P. larvae* spores, slowing the growth of pathogenic microorganisms and ensuring a healthy environment for colonies. Its selectivity and the absence of adverse effects for bees or larval development make Oleuropein Bee an ideal solution for beekeepers.

Developed by the Institute of Sciences and Innovation in Medicine (ICIM), Oleuropein Bee was first introduced at the 48th International Beekeeping Congress APIMONDIA 2023 in Santiago, Chile. Prior to its launch, the technology

transfer office at the Universidad del Desarrollo assisted in OleuropeyN Bee, helping license the technology to the company Apliquality and design strategies for the technology's protection and internationalization. With the help from the technology transfer office, OleuropeyN Bee holds granted patents in the United States, Argentina, Bulgaria, Spain, France, Italy, Poland, Romania, Turkey and England, protecting bees from AFB globally.

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