

HAPPY NEW YEAR BEE CULTURE READERS

Catch The Buzz™

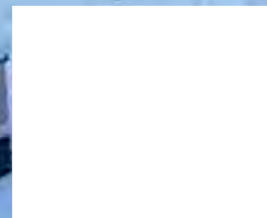
Bee Culture®

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Mayan Melipona

**A.I. Root
Pollinator Garden**

USDA



Bee Vectoring Technology is breaking ground with a new targeted delivery approach – one that replaces wasteful spray methods and delivers product only where it’s needed, directly on blooms, naturally through commercially-reared and managed bees. This process of bee vectoring is integral to BVT’s natural precision agriculture system.

A honey of an idea

The BVT delivery system prevents the waste associated with spraying by delivering the product directly into the bloom, exactly where it needs to go to benefit the plant the most. And it happens in the most natural way possible: with bees. Revolutionary bee vectoring technology uses commercially-reared and managed bumblebees and honey bees to carry biological agents directly to a crop’s flowers. There is no over spraying. No mechanical processes. And no heavy reliance on water and fossil fuels. Just natural crop protection that works.

Crops are healthier, yields are up to 29% higher, water and air get cleaner, soil is revitalized and the microbiome has a chance to return to its natural, balanced state. It’s good for farmers (improved disease control and yields), consumers (fewer chemical pesticides consumed), the environment (healthy soil absorbs more CO2) – and prevents bees from interacting with chemical sprays during pollination.

The process of using bees to deliver biological disease and pest controls has no effect on the hive. The bumblebee system uses hives that naturally last 10 weeks in a specialty designed hive. The honey bee system is a device that attaches to a standard hive, and mechanically drops product only while the bees are pollinating. It has no effect on their honey production, honey quality, or how they would normally pollinate. It’s a simple system that doesn’t require any special training, and helps growers create healthier crops and a cleaner environment.

Bee vectoring vs. spraying

Here’s how BVT stacks up to spraying, illustrated below with an example from strawberry production in Florida, USA: it takes four kg of spraying chemical pesticides to do the same work as only 0.02 kg of BVT biologicals. BVT’s proprietary bee delivery system and Vectorite™ with CR-7 is used in two hives per acre, with CR-7 trays replaced every five days. Compare that to ten

BVT

Honey Bee Delivery System

— Ian Collinson

sprays of Switch fungicide at a rate of 14 oz. per acre, per spray. That’s a dramatic savings and comes with a much lower environmental impact when you consider that 98% of the sprayed product doesn’t make it to the right place (directly on blooms).

U.S. EPA approved and OMRI certified

In August 2019, BVT was granted US regulatory approval through the Environmental Protection Agency (EPA) for its biological fungicide (*Clonostachys rosea* CR-7), for use as a fungicide on commercial crops. The EPA has also granted CR-7 a residue tolerance exemption under the Federal Food, Drug and Cosmetic Act (FFDCA), which indicates high human safety with no expected adverse effect from dietary exposure.

The company’s Vectorite with CR-7 has Organic Materials Review Institute (OMRI) approval for use with organic producers. The OMRI listed seal indicates a product has passed their review process and is compliant with organic standards. Certified organic farmers count on this verification to maintain their organic status.

Natural precision agriculture contributes to sustainable agriculture

The sustainable agriculture movement is gaining momentum worldwide. And BVT’s natural precision agriculture system is gaining traction in the agriculture industry. BVT just completed its first commercial growing season post EPA-approval in the US, implementing the system with strawberry and blueberry growers across America.

Grower feedback from the 2020 growing season was very positive. “The BVT system paid our operation 22x return on investment. It is making me more money by delivering more than 25% increase in yield while



The BVT precision bee vectoring system is ideal for use on flowering crops that require pollination, such as strawberries, blueberries, caneberries, sunflowers, canola, tomatoes, tree nuts, stone fruits and pome fruits.



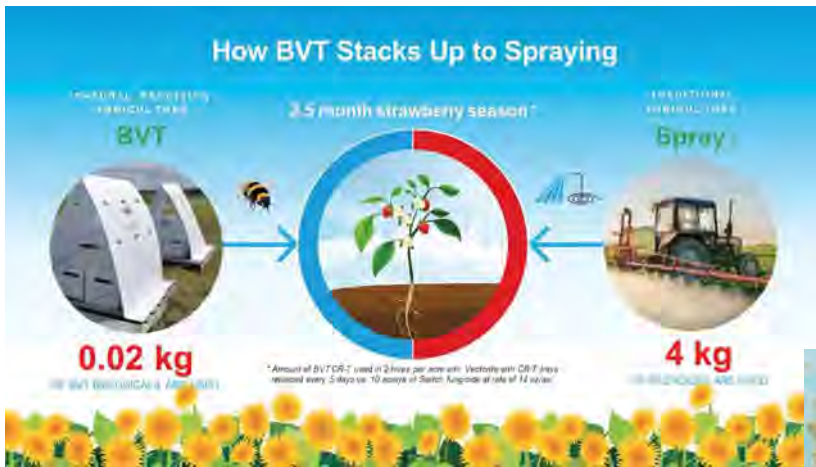
Left – A BVT honey bee dispenser system at a sunflower field. Right – A BVT bumblebee system on-site at a strawberry field.

controlling disease. The BVT system has been incredible to help control disease on blooms,” says Winn Morgan, co-founder of Major League Blueberries and a leading blueberry expert. “2020 is our third year using the BVT system and I am very pleased with the results. Everyone wins with this system – both growers and mother nature, it’s ingenious and very good at what it does.”

The company recently announced that it has secured

2021 grower commitments in October exceeding the entire 2020 growing season. The sales cycle for the 2020 growing season began in the US Southeast where the bloom starts first; and will now expand into the Midwest, Pacific Northwest and the Northeast where blooms start later in the growing season. **BC**

This article first appeared in the November 2020 edition of Alberta Bee News.



The BVT technology (precision bee vectoring) is completely harmless to bees and allows minute amounts of naturally-derived pesticides (biologicals) to be delivered directly to blooms by bees.



BVT staff sets up its natural precision agriculture system on-site in a blueberry field at the start of the growing season and blooming period – location is southeastern U.S.

