



Natural Precision
Agriculture

Bee Vectoring Technology

OCTOBER 19, 2021

Ashish Malik, CEO



BVT IS A CORE AGTECH COMPANY

EPA-Approved, Patented Technology Reduces Use of Chemicals and Increases Crop Yields

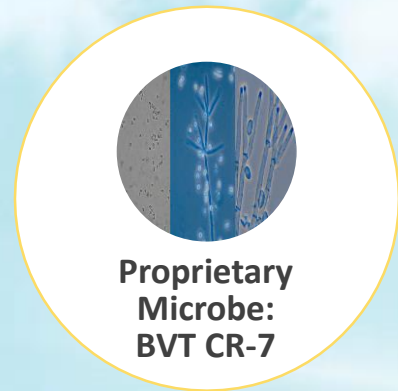
Biologics



Delivery by Bees



Up to 30% higher yields and 98% less chemicals



Precision delivery: use grams NOT kilograms



Natural: biologicals NOT chemicals



Sustainable: natural process NOT mechanical with heavy reliance on water and fuels



Profitable: consumer friendly crops with higher yields; better quality and shelf life

The only Natural Precision Agriculture tool

Ag-Biologicals – an Alternative to Chemicals

Ag-Biologicals: Products derived from a natural source that are used as agricultural inputs

MARKET DRIVERS FAVOR AG-BIOLOGICALS



On Farm

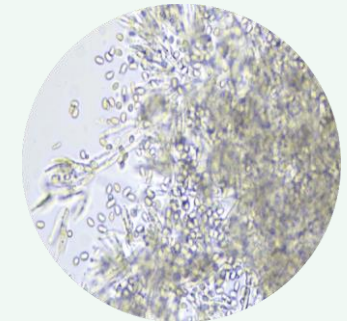
- ✓ Growers need higher yields
- ✓ New sustainable tools
- ✓ Reductions in chemicals



Beyond Farm

- ✓ Increasing regulatory hurdles (new chemical pesticide can cost \$500million to develop)
- ✓ Consumer demand for “Safe” food with no residues
- ✓ Food Chain / Retailers need transparency

BENEFITS OF AG-BIOLOGICALS



- ✓ **No chemical residues**
Meets global trade needs and secondary standards of retailers
- ✓ **Enhance yield and quality**
Improved plant vigor; help manage biotic and abiotic stresses
- ✓ **Resistance management**
New modes of action minimize development of resistance
- ✓ **Inherently less toxic than conventional pesticides**
Short re-entry and post harvest intervals gives flexibility

Bee Vectoring – an Alternative to Spraying

Bee Vectoring: Use of commercial bees to deliver natural control agents to flowering crops to manage key crop diseases and pests and enhance quality and yields of crops



✓ **115 crops** worldwide;
85 require pollination

✓ **Bees contribute** to 1/3
of food in human diet

✓ **80+ million** honey
beehives globally; 5
million bumblebee hives
grown every year



Rationale for Vectoring

- ✓ Same principles as natural pollination
- ✓ The flower is the primary portal of entry for many diseases & insects
- ✓ Flowers are the best place for the active ingredient to inoculate the plant

Benefits of Vectoring

- ✓ Substantially minimizes waste of control agent; no water
- ✓ Micro targeted delivery precisely deposits product where its needed over spraying entire fields
- ✓ Continual delivery throughout the bloom period (spraying can miss blooms)
- ✓ Additional yield, residue & quality benefits from improved pollination

The BVT System – Simple and Effective

Commercially reared **bumble bees** or **honey bees** enter their hive

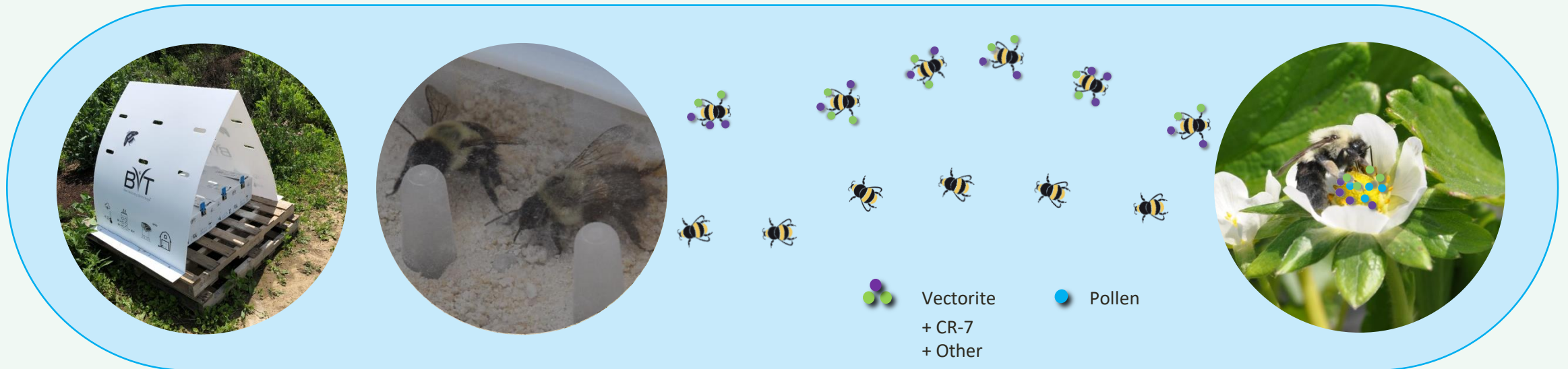


The bees walk across the proprietary **Vectorpak™** tray or cartridge which is filled with BVT's patented **Vectorite™ with CR-7**

Vectorite is an *organic* carrier agent which bonds with *stacked* bio-controls (microbes) and attaches safely to the pollinating bees



The bees fly to the crops and deliver the beneficial microbe in an efficient way; microbe colonizes the plant thus protecting the crop against various pests and diseases



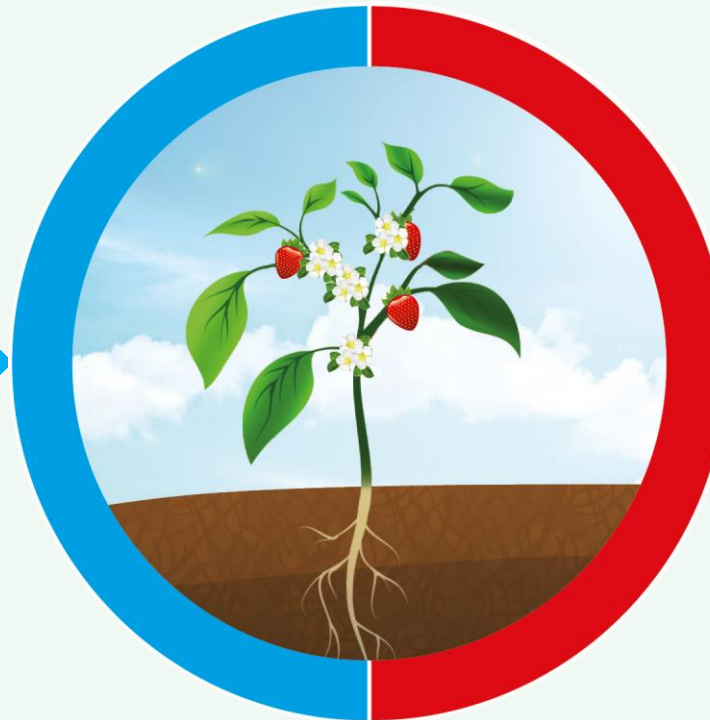
How BVT Stacks up to Spraying

NATURAL PRECISION
AGRICULTURE

BVT



2.5 month strawberry season *



TRADITIONAL
AGRICULTURE

Spray



0.02 kg

OF BVT BIOLOGICALS ARE USED

4 kg

OF PESTICIDES ARE USED

* Amount of BVT CR-7 used in 2 hives per acre with Vectorite with CR-7 trays replaced every 5 days vs. 10 sprays of Switch fungicide at rate of 14 oz/ac.

BVT System: Dispensers and Biological Control Agents

65+ Patents Granted, 35+ Pending Patents | IP Maximized Through 3rd Party Agreements

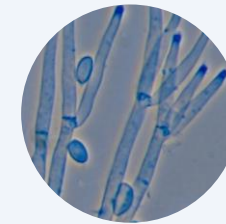
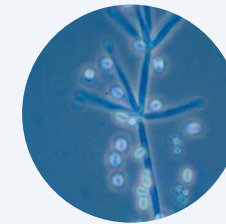
2 Dispenser Systems

VECTORHIVE
|||||



Proprietary Biological Control Agent

VECTORITE
||||| with CR-7



- ✓ A unique and beneficial endophytic fungus
- ✓ CR-7 is found worldwide in association with plants and in soils
- ✓ Selected from 1400 fungal isolates
- ✓ Registered (1st product approved for application using bees)



Natural Precision
Agriculture

Flowering Crops that Require Pollination



Berries



Strawberries, blueberries, caneberries,



170,000 acres



Tree Nuts



1.2 million acres in almonds



\$300 million pollination services market



Oil Seeds



Sunflowers (1.3 million acres) – low value



Canola seed production



Tree Fruit



Apples, avocados, cherries, peaches, pears, plums, prunes



Pacific coast and Michigan



Vegetables



Greenhouse tomatoes and peppers



Melons and squashes

Acres Source: USDA, National Agricultural Statistics Service

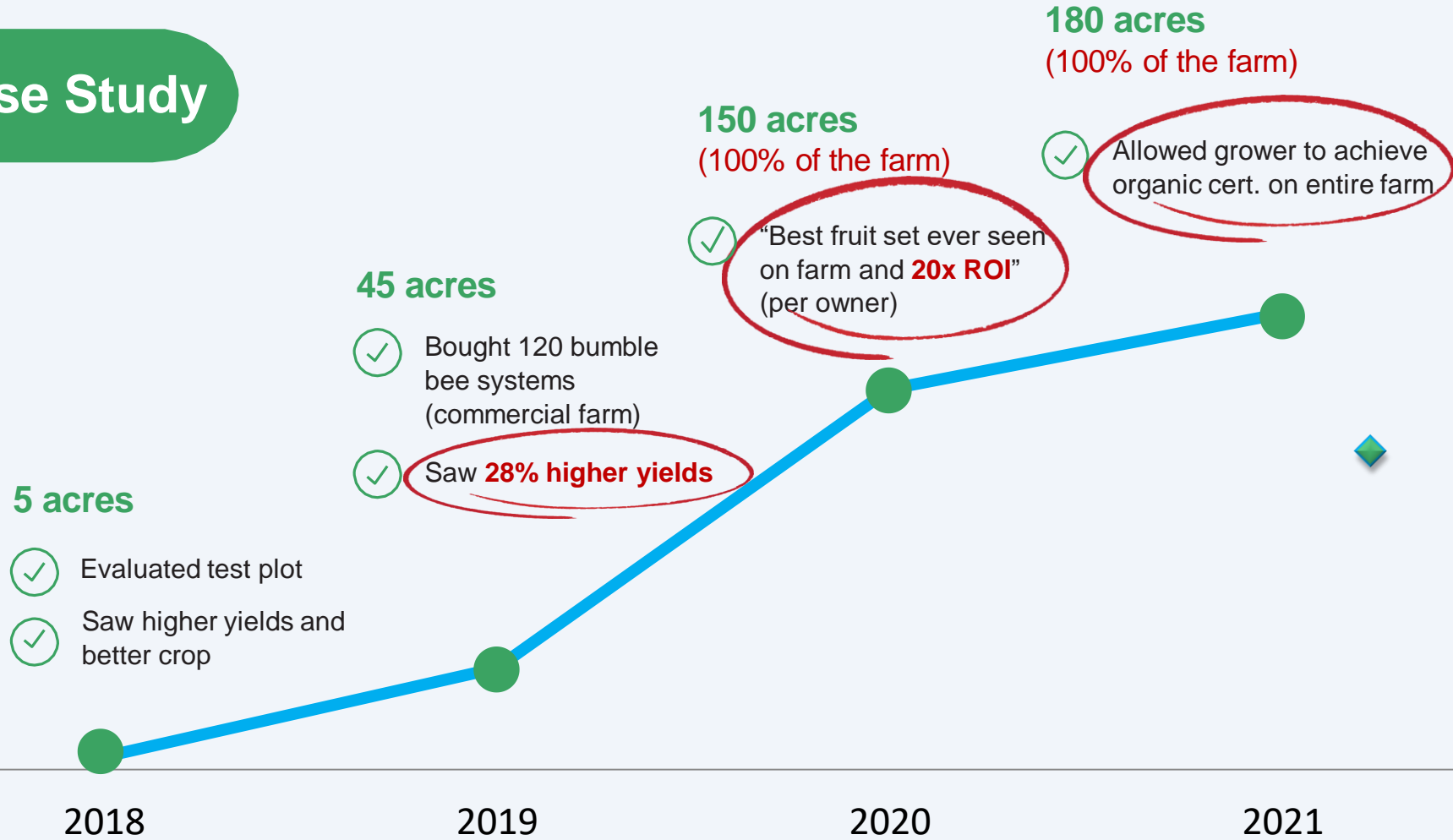
Proven Value Proposition on Multiple Crops

BLUEBERRIES Case Study



Major League Blueberries

High-bush blueberry grower in Nicholls, GA

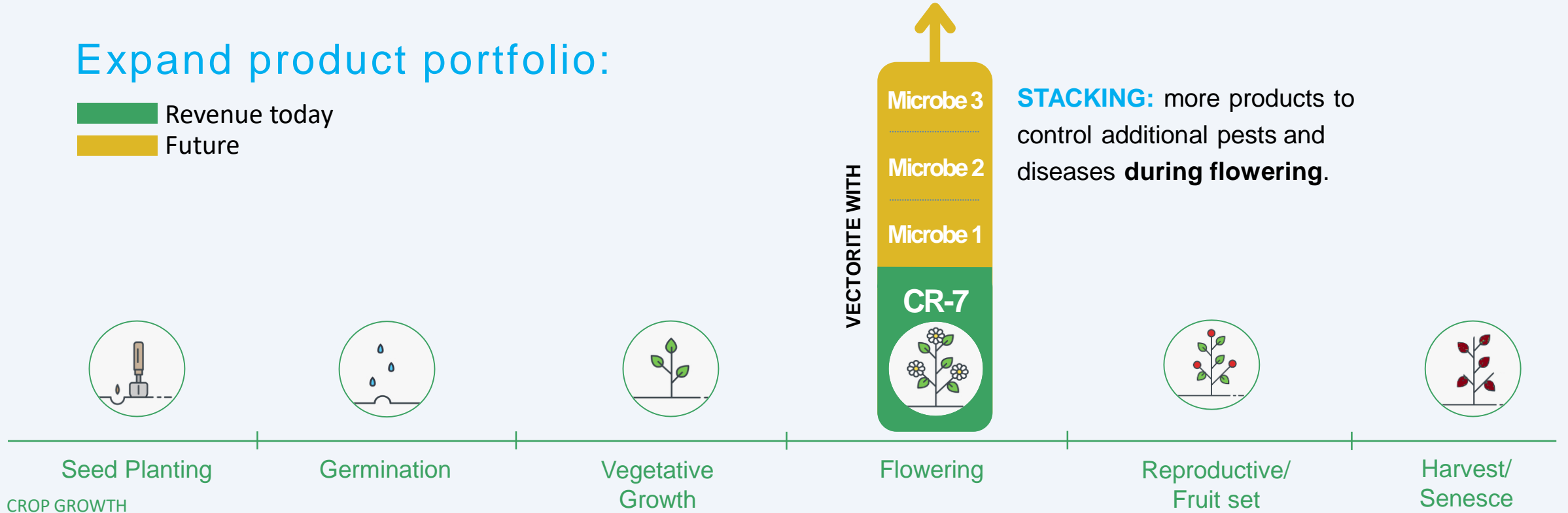


Stacking: More Products to Control More Diseases and Pests

Establishing **bee vectoring** as a foundational tool for growers

Expand product portfolio:

■ Revenue today
■ Future



- ✓ BVT is talking to/developing industry partners' registered products that are bee-safe
- ✓ Multi-microbe solutions will increase the value proposition of bee-vectoring to growers

THANK YOU



©2020. Vectorite, VectorHive and VectorPak are trademarks or registered trademarks of Bee Vectoring Technologies; EPA Registration No.: 90641-2; EPA Establishment No: 90641-CAN-1



Natural Precision
Agriculture