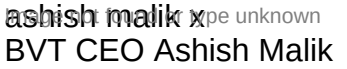
Podcast: Farming without chemicals: Pesticide-carrying bees poised to revolutionize agriculture?

If there's one point almost everyone agrees on, it's that cutting chemical use in agriculture is a worthwhile goal. Genetically engineered crops have helped farmers worldwide drastically reduce pesticide use, but biotechnology remains contentious. Many consumers are fearful that "playing god" with our food will yield potentially serious consequences for the environment and human health. This has stifled many attempts to develop new biotech crops that could further cut pesticide use.

While the GMO controversy rages, a handful of companies are taking another innovative approach to crop protection. Instead of engineering pest-resistant plants, they're developing products known as biologicals—natural compounds that protect crops but don't harm beneficial insects or threaten human health. These products have been available for decades, but technological improvements have made them more effective in recent years and their popularity is growing as a result.

Ontario-based Bee Vectoring Technologies (BVT) is taking the growth of biologicals one step further by recruiting bees to spread a natural fungus that controls pests and aids plant growth as they pollinate crops. The company says this substance:

> …. is an organic strain of a natural occurring endophytic fungus – which means it is a plant living within another plant. Commonly found in a large diversity of plants and soils all around the world, BVT's selected strain of fungus grows harmlessly in the inside of plant tissue …. It does not cause disease or substances toxic to plant tissue. Bees and plants are well accustomed to this kind of fungus and it is harmless to humans.



BVT CEO Ashish Malik

This EPA-approved pest control system offers a number of benefits, the company says. It boosts the crop's natural defenses and controls a variety of serious diseases, while increasing nutrient uptake—resulting in healthier plants that produce higher yields of better quality fruits and vegetables. Perhaps most importantly, this bee-based delivery system may prove more effective than pesticide sprays, because it ensures a wider and more consistent application of the active ingredient. As a result, BVT projects its approach could reduce pesticide use by 50-75 percent.

On this episode of Biotech Facts and Fallacies, BVT CEO Ashish Malik joins GLP editor Cameron English to discuss the company's novel pest-control tool and field questions about its future. While the company acknowledges its system is not a silver bullet, several studies published over the past decade and extensive data evaluated by the EPA have led experts to the conclusion that bee vectoring could play a major role in sustainable pest management systems.

Ashish Malik is Chief Executive Officer (CEO) of BVT. He was previously the VP of Global Marketing for Biologics at Bayer CropScience. Follow the company on Twitter @BeeVTech

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