

STK collaborates for product development



By Lee Dean
Editorial Director

STK Bio-ag Technologies, formerly known as Stockton, is taking an innovative approach to crop protection, including a new “hybrid” product that combines two active ingredients and a partnership with another company for product distribution.

STK’s new biofungicide, REGEV, is the first pre-mix hybrid fungicide product designed for easy integration into commercial spraying programs. REGEV is part of an overall effort by STK to lead a paradigm shift

from exclusive dependency on chemicals to a hybrid approach that combines conventional methods with new biologics. This is a unique contribution to bio-ag innovation, and a breakthrough in reducing chemical loads through identifying plant molecules that can be commercialized into viable food protection alternatives for growers, according to the company.

REGEV features several modes of action in one unique formulation, belonging to two different FRAC groups (Group 7 and G1), for broad spectrum disease control. This new solution is based on the mixture of a botanical active ingredient from the *Melaleuca alternifolia* and a chemical pesticide, a broad spectrum preventive and curative fungicide for the control and suppression of fungal plant diseases.

One of the benefits to the hybrid approach is that it builds a bridge for growers to using more biological products, said company CEO Guy Elitzur. Such a hybrid product, he said, is a novel development.

“As far as we know, no one else has developed this concept. Everyone is talking about integrating biologicals within a program, but no one else is combining these two different kinds of active ingredients in the same product,” he said.

REGEV is an example of STK’s focus on product research to develop biopesticides based on botanical based biopesticides. Plant species synthesize a variety of secondary metabolites that are important in the protection against predators and microbial pathogens and interaction of plants with other organisms, in addition to those essential to plant growth processes.

The hybrid approach has a wider advantage for the entire biological market, providing an on-ramp into other crops and commercial markets. This combination of conventional pesticides with cutting-edge biologics is designed to more safely control crop diseases while strengthening the efficacy of Integrated Pest Management programs for multiple crops around the globe.

“Botanical-based insecticides positively impact every link in the delivery chain while making good on the promise of a sustainable agro ecosystem. New advanced bio technologies, such as biopesticides and hybrids, are registered by systems designed originally for chemical pesticides that have created market entry barriers by imposing heavy costs on the industry,” Elitzur said. “In many cases, there is synergy between the two active ingredients within the product. So we have been working with botanicals to give the advantage of integrating them with different chemicals.”

Residue levels and resistance are other areas where hybrids can play an important role. Integrating biological products and new modes of action can



give growers new tools in managing resistance, and hybrids will add one more layer of versatility, Elitzur said.

Regarding registration, “we estimate two to three years in the U.S.,” Elitzur said. “We assume they will consider it as a synthetic in terms of the many analytical tests required. On the other hand, it will be counted as a single MRL (maximum residue limit). Only one chemical AI (active ingredient) will be considered and the biological AI won’t be considered.”

REGEV is now being used in Latin America on crops such as apples, bananas, peanuts and coffee, with future application possible with row crops along with other fruits and vegetables.



REGEV follows STK’s Timorex Gold biofungicide that was first registered throughout Latin America, then broke through into the United States. Timorex Gold is now registered in over 30 countries worldwide, plus more than 40 states in the U.S. Expanded registration of Timorex Gold in California is in the regulatory pipeline and is expected to come soon in 2018. In the European market, registration and commercializing of the product was received recently in Spain and is expected to be received in Portugal and other southern European countries shortly on crops such as potatoes and grapes.

Additional field trials of Timorex Gold in the United States and Europe show it has “a high level of success from the farmer’s level interacting with different programs in fruit and vegetables, Elitzur said.



GUY ELITZUR

“The experience we are gaining from different countries and understanding ways of integrating it into a commercial program definitely gives us an edge in coming to the U.S. with a new product and a new modes of action. In the U.S., we had a good year in terms of understanding of farmers and how to integrate Timorex Gold into different crops and programs. It will ramp up significantly in 2018,” Elitzur said.

In order to advance Timorex Gold, STK entered into an alliance with Syngenta now working in Mexico, Chile, New Zealand and Australia. The companies are cooperating in an effort to bring biological products to those countries on an initial crop mix of tomatoes, cucumbers, grapes, bananas, berries and kiwi. Further discussions with Syngenta are taking place to widen the distribution to other countries, and also on new product development.

Elitzur said the company is looking ahead to accelerating the arrival of products to the market.

“The next three to five years, there will be more product based on botanicals and more hybrid products,” he said. “Later on, in five to 10 years, we will see different and new botanical active ingredients coming into the market from us.” FGN



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