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Silvec Biologics to combat citrus greening disease with RNA-based plant protection products

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Silvec Biologics, a Maryland based agtech company that develops RNA-based plant protection products, has announced that a first-of-its-kind RNA vector delivery product, developed in collaboration with Southern Gardens Citrus (a subsidiary ofÂ U. S. Sugar),Â University of Florida, andÂ Texas A&M AgriLife Research, to combat the devastating and incurable citrus greening disease. Silvec Biologics is processing the EPA Pesticide Regulation Improvement Act (PRIA) registration and approval process following successful completion of Milestone #4 â?? Technical Screen earlier in July 2024.

Citrus greening has had a massive impact on citrus production globally. Silvec product is based on a mild and naturally untransmittable version of a virus found in most citrus trees that has been reprogrammed to express a natural antimicrobial peptide found in spinach. A single application has been demonstrated in field trials to provide long-term reduction in yield declines caused by the citrus greening bacteria. This product is the first of its kind to use a viral vector to reduce damage from pathogens, is compatible with all commercial citrus varieties, and does not genetically modify the tree or its fruit.

The citrus vector product has been approved by USDA for commercial use in all Florida counties following a positive Environmental Impact Statement issued by USDA in June 2020. Silvec, along with its regulatory partner, the IR-4 Project, filed an EPA registration application in January 2024 which commences an 18-month review process.

According to Rick Dantzler, Executive Director of the Citrus Research and Development Foundation, a partnership between Florida citrus growers and government agencies, â??CRDF sees the citrus vector technology as playing an instrumental role in helping to reduce the catastrophic effects of citrus greening on Florida citrus production and Silvec has our full support with its regulatory approval process.â?•

Silvec develops RNA platforms for delivering traits into plants without modifying their genomes. Its products can enhance plant traits as well as protect against pathogens including viruses, bacteria, fungi, and pests with products developed at a fraction of the cost of other approaches. With plant pathogens causing hundreds of billions of dollars of annual damage and a strong demand for non-GM trait enhancement, Silvecâ??s proprietary RNA technology can revolutionize agriculture similar to how RNA therapies are revolutionizing human medicine