USDA awards major organic research grant to fight citrus greening

The Organic Center is part of a $2 million-plus multi-year grant to identify solutions for organic producers

WASHINGTON, D.C. (November 18, 2022) — Since its discovery in Florida in 2005, citrus greening has threatened the citrus industry on a massive scale, and has posed especially unique challenges for organic citrus growers. Now an important new grant from the U.S. Department of Agriculture's Organic Agriculture and Research and Extension Initiative (OREI) will advance critical research to target solutions for organic producers to fight this devastating disease.

The grant awards $2,032,887 to a team of scientists from the University of Florida, Texas A&M University, and The Organic Century led by Dr. Jawwad Qureshi, Associate Professor of Entomology at the University of Florida, for a 4-year project. The team will be focused on providing organic citrus growers nationwide with vital tools to reduce and manage the spreading of citrus greening, also known as Huanglongbing disease (HLB), in their groves. The Organic Center, the independent non-profit educational and research organization operating under the administrative auspices of the Organic Trade Association, received a subaward of $114,630 to conduct national level outreach and education efforts.

"We are deeply heartened by this award, which is the culmination of many years of fundraising and grant writing," said Dr. Amber Sciligo, Director of Science Programs for The Organic Center. "Citrus greening continues to devastate the citrus industry, and organic growers need to have organic solutions to fight this deadly disease without resorting to dangerous chemicals or genetic engineering."

"The studies will provide tools to manage the spread of HLB and the insect that spreads the disease on organic farms and to integrate into the conventional and area-wide management programs," said Dr. Quereshi. "This will help reduce the spread and severity of the HLB in the regions where this disease is present."

Citrus greening has destroyed millions of acres of citrus crops throughout the United States. The disease spreads quickly, and within four to five years can kill a tree. It is carried by the tiny Asian citrus psyllid. The insects inject a bacterium into the tree, which stops the flow of water, nutrients and minerals between the tree's roots and its leaves and branches, leading to yellowing leaves, green and bitter fruit, premature fruit drop and eventually the destruction of the tree.

Conventional strategies to control the disease have not yet proven effective and most center around the application of chemical insecticides, which is prohibited by organic standards. Some growing areas have even mandated that chemical sprays be applied, with no organic alternatives being offered. Without any one solution, conventional citrus growers have been looking toward organic producers to learn a more holistic approach that builds resilience in the plants by building soil and overall ecosystem function.

America's organic citrus sector is a $90 million industry, and despite the challenges of citrus greening, has grown steadily as consumers increasingly seek out the healthiest and cleanest foods for their families. Last year, as families still struggled with COVID, organic citrus sales grew by double digits. But as the industry has struggled with citrus greening, decreased supplies of citrus have increased prices at the grocery store, which could impact demand.

Laying the groundwork for the recent grant was an award in 2019 to the University of Florida and TOC to assess research priorities for organic citrus growers combating the disease. For that project, University of Florida researchers analyzed data collected in a survey of organic citrus growers conducted by TOC to quantify current practices and research needs and TOC also conducted a webinar on the disease to spread consumer awareness, and published a grower guide for citrus producers. The Organic Center also organized a stakeholder workshop for organic growers and researchers to collaboratively develop a this funded OREI research proposal that would address top priority research needs.

"…citrus greening is currently the most severe threat to citrus production and requires management in all production systems, including organic citrus," stated the proposal for the grant.

Established in 2002, OREI is USDA's flagship organic research program, supporting research projects that address the critical challenges faced by organic farmers in their fields everyday.

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About The Organic Center

The Organic Center's mission is to convene credible, evidence-based science on the health and environmental impacts of organic food and farming and to communicate the findings to the public. The Center is an independent non-profit 501(c)(3) research and education organization operating under the administrative auspices of the Organic Trade Association.