

## Texas A&M research project aims to enhance tomato yield in Qatar

23 January 2023 | News

**The project, “Environment and hydroponic strategies to enhance tomato stress tolerance, productivity and quality in Qatar”**



**The project, “Environment and hydroponic strategies to enhance tomato stress tolerance, productivity and quality in Qatar”**

A Texas A&M research project is underway to significantly enhance tomato yield in Qatar. The project is jointly undertaken by Texas A&M AgriLife Research, Texas A&M University at Qatar, a Qatar Foundation partner university, and Agrico, sponsored by Qatar National Research Fund.

The project, “Environment and hydroponic strategies to enhance tomato stress tolerance, productivity and quality in Qatar”, is being conducted at the Agrico farms, located near Al Khor. The researchers are assessing various genotypes of tomatoes from around the world to see which ones would thrive in the harsh environmental conditions of Qatar. They are also investigating the impact of grafting, plant density, pest control, and bumblebee-assisted pollination.

The project team includes lead principal investigator Dr Daniel Leskovar, professor at the department of horticultural sciences and Centre Director at the Texas A&M AgriLife Research and Extension Centre at Uvalde, the co-principal investigator Dr Bing Guo, mechanical engineering associate professor at Texas A&M University Qatar and Dr Prosanta Dash, a postdoctoral research associate at Texas A&M at Qatar.

Leskovar said, “Our hydroponic tomato project is a true academic-stakeholder partnership where we combine plant science knowledge with grower experience, and new crop management strategies within the excellent facilities and constant support provided by Agrico. The synergy of complementary research conducted at Texas A&M AgriLife Research in the area of tomato grafting physiology provides additional results to test in this project in Qatar. Together, we are committed to developing

efficient, safe, and resilient food systems that will contribute to enhancing food security.

“As Texas A&M University at Qatar researchers, we strive to provide solutions to real challenges faced by the country,” said Guo. “In recent years there has been a pressing need to make farming more efficient in Qatar. Our preliminary experimental results show a significant increase in tomato yield as compared to the current practice. This is a strong indication that we will reach our goal of improving production efficiency by 25 per cent.”

Nasser Al Khalaf, Managing Director at Agrico said, “Agrico is committed to supporting Qatar to attain its food security goals, and through this partnership with Texas A&M University and Texas A&M AgriLife Research, we are exploring innovative approaches to improve the product yield at our farms. Research and development in agriculture play a key role in enhancing agricultural practices globally, and we look forward to working with Texas A&M researchers, to produce the best output for our country.”