Fabian Garcia Science Center

The first deed for Fabian Garcia Research Center (FGRC) was signed in 1906 and today the center has 41.1 acres of land. The center is home to many research plots and greenhouses supporting chile pepper, onion and alfalfa breeding and genetics and viticulture. Many projects include research on algae management for biofuel and the medicinal industries, aquaponics, enhancing native habitat and pollinators. In addition, the center includes a botanical garden, gazebo and the Chile Pepper Institute Teaching Garden, which are all open to the community for seasonal outdoor enjoyment and educational outreach.

SCAN THE QR CODE TO VISIT OUR WEBSITE
fabiangarciasc.nmsu.edu

MISSION

Researchers at the Fabian Garcia Science Center strive to carry on Fabian Garcia's legacy of innovation in agriculture and passion for educating the next generation of agriculturalists.

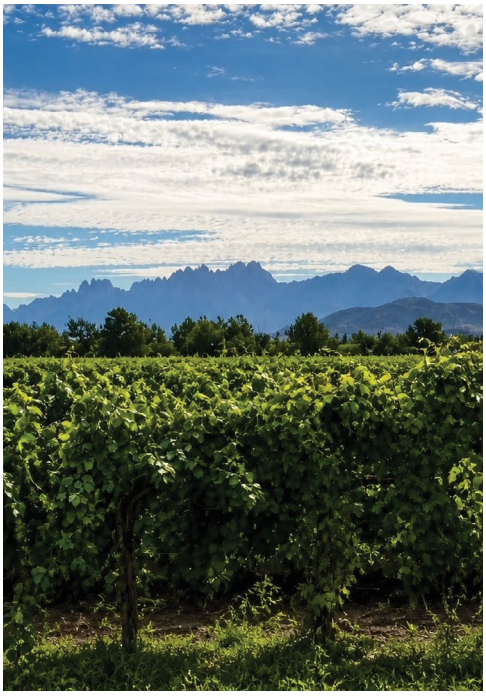
VISION

Advancing innovations in high-efficiency agriculture.

VALUE ADDED TO NEW MEXICO

- Viticulture research highlights the importance of wine grapes as a value-added crop.
- Guar is used as feed for livestock, a binder in food products and a stabilizer in industrial applications.
- Marshmallow is used in food and medicinal industries.
- Clary Sage is cultivated for its potential to generate income through the extraction of sclareol which is used in a wide variety of industries.

Research Focus



Current research at the center focuses on onion cultivars resistant to diseases and pests, and chile peppers that can be mechanically harvested. Investigations are being conducted to reduce reliance on declining freshwater through irrigation with brackish water using regionally adapted cover crop mixtures for hotter and drier climates, and testing alternative, water-saving, highend, value-added crops such as guar, marshmallow and clary sage. Other ongoing research includes aquaponic studies and research on microalgae which contributes to the understanding of its role in sustainable energy sources, human nutrition and soil health.

New Research

New research projects include mycorrhizal colonization rates and dependence for native New Mexico species of range land plants and how this helps in drought conditions, speed breeding of chile peppers, the use of hydrogel and surfactant technologies in maintaining the quality and marketability of tomato plants during transportation and retail display conditions and use of a QuadCam system to track seedling emergence and turnover of rangeland species that will develop a deep learning model.





Recent Impacts

- New disease resistant onion cultivars provide more resilient crops for New Mexico growers.
- Aeroponic farming research is showing promising results on maximizing small spaces.
- Current research on rangeland plants are demonstrating the best, most efficient ways to restore native species.
- Water-wise irrigation systems in greenhouses are finding the most efficient irrigation scheduling and technology for greenhouse crops.

COMMUNITY ENGAGEMENT

The Fabian Garcia Research Center hosts a biennial field day that draws over 100 individuals from the community. Visitors learn about research projects, educational opportunities and the history of one of the oldest centers in the state. This field day is an important event that brings researchers, scientists and students together to showcase the amazing studies and provide the community with a diverse educational outreach component.



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NMSU and the U.S. Department of Agriculture cooperating.