



**AGRICULTURAL SCIENCE CENTER AT FARMINGTON**

The Agricultural Science Center (ASC) at Farmington is part of NMSU’s larger Agricultural Experiment Station (AES) system, supporting fundamental and applied science and technology research to benefit New Mexico’s citizens in the economic, social, and cultural aspects of agriculture, natural resource management, and family issues. ASC Farmington is unique in that it resides on sovereign First Nations Land, the Navajo Nation. As such, our mission is to conduct research, demonstration, and educational programs that will best meet the needs of the agricultural community of San Juan County and the Navajo Nation in particular, as well as the state of New Mexico, the Four Corners Region, and the U.S. in general.

ASC Farmington consists of two faculty and several staff with core competencies in horticulture, soil quality monitoring, irrigation management, and cropping systems. With our collaborators, we conduct soil and crop evaluations and examine their intersections with community wellness, economic development potential, water conservation, and environmental stewardship in support of the four pillars of economic and community development outlined by NMSU’s College of ACES. Undergraduate and graduate students are integral to the research process.



**SELECTED PARTNERSHIPS**

- Navajo Agricultural Products Industry (NAPI)
- San Juan, Animas, and La Plata River irrigated farms
- Navajo Nation
- San Juan College, Diné College, Navajo Technical University, and Fort Lewis College
- Wilbur Ellis
- Proximity Malt
- Colorado State University
- Fred Hutchinson Cancer Research Center
- San Juan County (NM) and La Plata County (CO) Cooperative Extension
- USDA–NRCS
- New Mexico Environment Department
- New Mexico Department of Agriculture
- Four Corners Local Businesses

**ACES Pillars for Economic and Community Development**



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The College of Agricultural, Consumer and Environmental Sciences is an engine for economic and community development in New Mexico, improving the lives of New Mexicans through academic, research, and Extension programs. New Mexico State University is an affirmative action/equal opportunity employer and educator. NMSU and the U.S. Department of Agriculture cooperating.

## SELECTED ACCOMPLISHMENTS AND IMPACTS

- Our outreach research on the Navajo Nation is increasing the number of community and backyard gardens, and shows the potential for modest increases of healthy foods in the diet. The prevalence of diabetes among the American Indian and Alaska Native populations (15.9%) is more than double the rates of the non-Hispanic/Caucasian population (7.6%; National Diabetes Statistics Report, 2014).
- Our research is identifying grapes, hops, and other specialty crops that can be value added and branded “New Mexico True.” We are the largest experimental vineyard in the northern half of New Mexico. More than 36 wineries produce approximately 350,000 gallons annually. The New Mexico Brewers Guild has 59 member breweries that produced 85,230 barrels in 2017, with an economic impact that grew to \$340 million. In 2016–2017, we planted 20 acres of malting barley in response to industry demands. We also maintain an extensive hops variety trial, and have acquired two mechanical hops pickers to catalyze a regional “co-hop-erative.”
- We were among the first to respond in evaluating and monitoring the impacts of the 2015 Gold King Mine spill into the Animas River. We are continuing to reach out to local farmers and the Navajo Nation through soil, irrigation ditch, and water quality monitoring. Our dissemination of data is helping farmers to make informed decisions and raising awareness of the potential impacts from upstream legacy mining in the Silverton Caldera.
- With the 2017 addition of Dr. Koffi Djaman, we will expand our crop evaluations to focus on improving soil and crop management practices and utilizing variable-rate center-pivot and drip irrigation technologies that enhance efficiency, profitability, and environmental quality in the face of increasing water limitations and climate change.

