



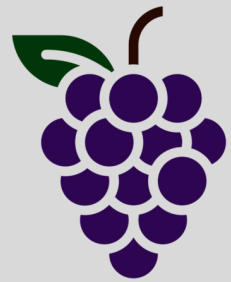
Sustainable Agriculture Science Center at Alcalde

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Mission Statement

The mission of the Alcalde Sustainable Agriculture Science Center (SASC) is to conduct agricultural and natural resource research to benefit small-scale family farms and ranches of north-central New Mexico. Through testing of different crops, varieties, and production techniques, the goal is to provide new information that producers can adapt to their operations for greater productivity and profitability. The Center was the first ASC to carry out research on certified organic land and hold an organic certification. SASC also serves as the headquarters for the Cooperative Extension Service's Rural Agricultural Improvement and Public Affairs Project (RAIPAP). CES RAIPAP provides programs in sustainable agriculture to the 13 northern counties that comprise the Small Farm and Ranch Task Force.



Irrigated pasture and forages dominate the area of the center, but there are also numerous orchards and intensive, high-value fruit and vegetable producing operations.



The Science Center has served as a weather station for the National Weather Service providing climatological data since 1953.

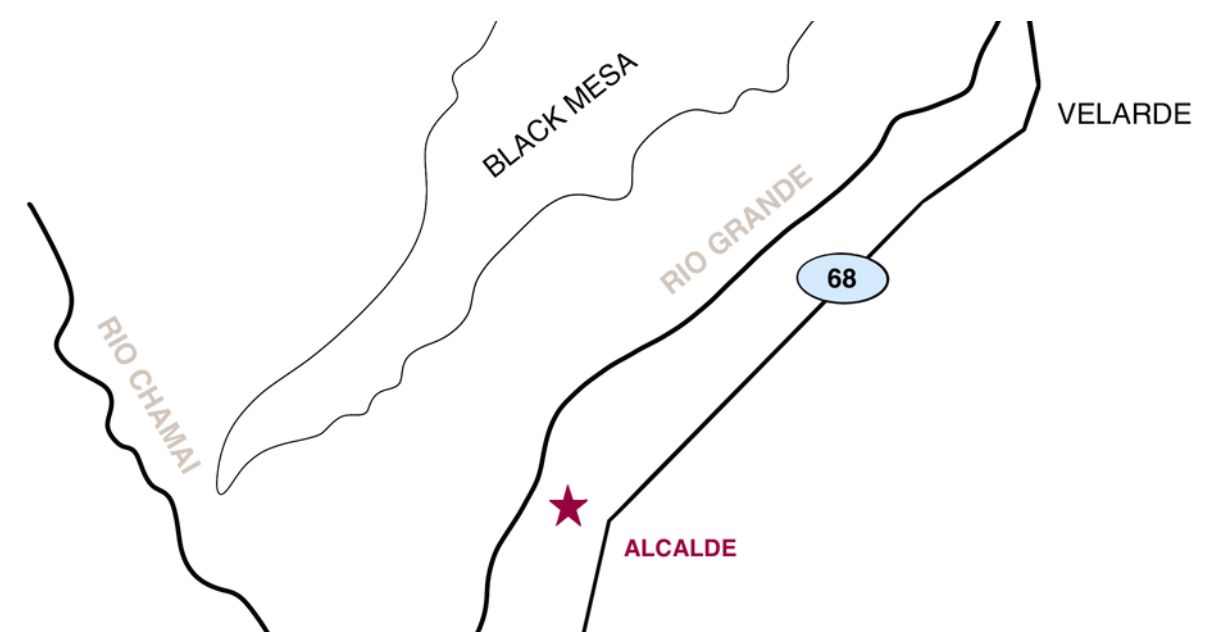


The Science Center also serves as the headquarters for the Cooperative Extension Service's Rural Agricultural Improvement and Public Affairs Project (RAIPAP), providing programs in sustainable agriculture, financial planning, and public policy skills.

LOCATION

Alcalde lies in the Upper Rio Grande Valley, between Española and Velarde, in Rio Arriba County. Geologically, it is within the bounds of the Española Basin, part of the larger Rio Grande Rift system.

Irrigated pasture and forages dominate these areas, but there are also numerous orchards and intensive, high-value fruit and vegetable producing operations. Outside of the irrigated valley areas, in the grass- and shrub-lands, grazing is the primary agricultural activity.



OUTREACH ACTIVITIES

SASC worked with NMSU main campus to produce a series of clips. Researchers were interviewed about their ongoing projects and research at the Science Center. These 3-5 minute vignettes will be edited together for farmers, ranchers, gardeners, parciantes, and citizens of North Central New Mexico.

In conjunction with the Virtual Update, a Virtual Tour was also filmed to represent the Sustainable Agriculture Science Center in Alcalde's presence on the larger NMSU website.

Each film is available via SASC's website and NMSU ACES YouTube channel.



ACES Pillars for Economic and Community Development

Food and Fiber Production and Marketing

Water Use and Conservation

Family Development and Health of New Mexicans

Environmental Stewardship

Foundational Education and Training

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.

Recent Impacts

- The limited choices of commercially available cultivars to the jujube industry will be greatly improved with the NMSU jujube project. There are currently only 5-6 jujube cultivars commercially available in the United States with 'Li' as the dominant one. The New Mexico State University Alcalde Center jujube program has been evaluating more than 50 cultivars in the past eight years and has identified 8-10 fresh eating cultivars.
- Apple is the number one fruit species in New Mexico. States with big apple operations utilize high-density planting and dwarfing rootstocks to boost crop production, yet there is limited research on what growing methods are most suitable for New Mexico apple growers. The NC-140 program is a nationwide rootstock evaluation program for different temperate fruit species (apple, cherry, pear, etc.). We set up our first NC140 organic apple rootstock trial to test different rootstocks for organic planting With a tall spindle system at NMSU Alcalde Center in 2015.
- Cover crops provide several benefits including reducing wind and water erosion, fixing nitrogen, and increasing soil organic matter. They also can provide habitat for beneficial insects and promote a more diverse and functional soil microbiome. At Alcalde, we have been experimenting with mixes of cover crop species to achieve maximum soil-building functions. As of this reporting, the tops of the radishes are dying back. Early in 2021, a ground cover assessment was made with photographic measurements before digging and measuring a sample of root depth and biomass.

Ongoing Research

- The New Mexico State University Alcalde Center jujube program has been evaluating more than 50 cultivars to give growers nationwide more choices with extended maturation dates and achieve a \$1-2 premium per pound. The jujube acreage nationwide will increase significantly on expectation.
- Cover crops will be irrigated periodically through the winter and spring and terminated in April.
- Researchers continue to maintain the telemetry monitoring system and conducting manual flow measurements. Post-surveys are currently being distributed. Researchers have received positive feedback from the web interface's first season in use and look forward to formal feedback collected through the post-surveys.



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