



# Agricultural Science Center at Los Lunas

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## Mission Statement

The mission of the Agricultural Science Center at Los Lunas is to conduct research and Extension programs on various crops and plant-based systems important to New Mexicans in the Middle Rio Grande Valley (MRGV) and throughout New Mexico. Through a cooperative agreement with the USDA-NRCS Los Lunas Plant Materials Center (PMC), the ASC–Los Lunas and PMC work together to solve agricultural and conservation issues.



The weather station at the Agricultural Science Center at Los Lunas has remained in continuous operation since its establishment in July 1957.



Chile contributes to the historical foundation of New Mexico as its signature crop and has been cultivated in New Mexico's Rio Grande Valley for four centuries.



The Plant Materials Center serves portions of a six-state area that includes part of Arizona, Colorado, New Mexico, Oklahoma, Texas, and Utah.

## LOCATION

Located on 200+ irrigated acres, four miles south of Los Lunas, the ASC evaluates crop adaptability, performance, and related cultural practices such as irrigation, pest management, plant growth, and regulation and propagation techniques. Having a research center centrally located within the state, near the largest metropolitan area, is a huge asset. It is easily accessible to the main university campus in Las Cruces as well.

## FUTURE GOALS

- Demonstrate urban landscape management effects on soil quality and carbon sequestration with select species of climate-ready trees, shrubs, vines, and a variety of landscape mulches.
- Diversification of plant species, marketing, and utilization options for farmers, homeowners, and gardeners alike is key for long-term sustainability and economic viability.
- Improve awareness of water-conserving mechanisms used in landscapes, while increasing ecosystem services.
- Commercial acreage of N.M.-type green chile is threatened due to inconsistent labor availability. Researchers are currently working on mechanization of green chile harvest to reduce hand labor costs.
- Many of New Mexico’s production systems are not sustainable. New alternative crops and modified cropping systems must be developed to maximize water conservation while maintaining a level of productivity necessary for continuous feed and food supply



### ACES Pillars for Economic and Community Development



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.

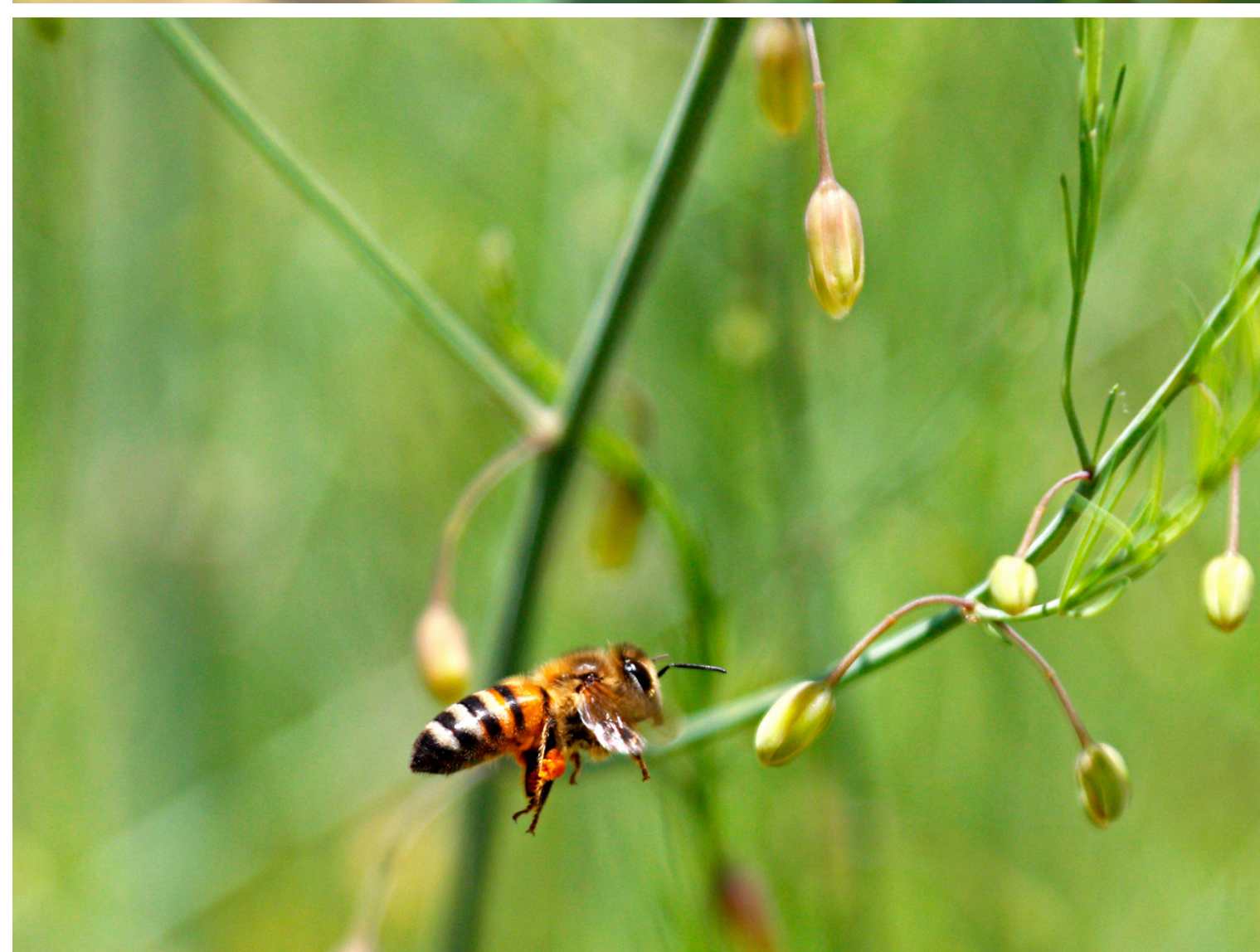


## 2020 Impacts

- Wine sales within NM generate over 50 million in state and federal taxes annually. Evaluation of vinifera and hybrid wine cultivars, as well as cover crops for pollinator and soil health improvement, will lead to more diverse and resilient grape producing systems.
- Producers incur significant costs associated with planting and growing alfalfa and other forages, including land preparation, fertilizer inputs, seed purchase, and pest management during establishment. Forage programs improve regional production by increasing awareness of variety selection, water management, and alternative crop and high-value forage marketing opportunities.
- Significant improvements in species and variety selection, plant and water management, and integrated pest control have resulted from the multi-faceted programming.
- New Mexico's pollinator population has over 1,000 species of native bees and over 350 species of butterflies. However, pollinator populations are in decline, threatened by habitat loss, chemical use, and pressure from pests and diseases. Cover crops can provide a way to increase the habitat resources needed for the conservation of these species.
- Using traditional breeding methods to develop NM-type green chile cultivars efficient for a mechanized harvest system.

## Ongoing Research

- Guar variety and seeding rate studies: Guar gum is a billion-dollar market in the U.S. Because guar grows very well in New Mexico, its production can allow farmers to reap maximum economic benefits.
- Experimental wine making (ex: Mission Rose from NM heritage variety) for unique value-added options for NM growers.
- Tomatoes are the most popular garden vegetable, yet each year many die from curly top virus and environmental stress. Strategies for alleviating stress and reducing fatality rates will increase production and improve the gardening experience.
- Evaluate new hybrid table grape cultivars to support local production and improve diet options.
- Research evaluating various weed-control strategies for chile producers will lead to improved weed management options, including both cultural and chemical opportunities.



### Los Lunas Agricultural Science Center

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**New Mexico State University Agricultural Experiment Station**