Agricultural Science Center at Artesia



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

The Artesia Agricultural Science Center (ASC) serves as a hub of agricultural innovation, with faculty whose expertise is sought by colleagues and clients across the nation. The center's mission is to drive progress through collaborative research and Extension programming in critical areas such as soil and water management, pest control and the development of new crop varieties.

MISSION

The Agricultural Science Center at Artesia conducts research and Extension programs in soil, water, crop and entomological sciences to enhance the agricultural, economic, environmental and social well-being of southeastern New Mexico.

VISION

Developing solutions for regional agricultural and water challenges.

VALUE ADDED TO NEW MEXICO

- Utilizes different irrigation application techniques: flood, side roll pressurized, sprinklers and lateral overhead pressurized.
- The Artesia ASC entomology group continues to address resistance to Bt genes as it is an issue for control of bollworm in corn and cotton, and most recently southwestern corn borer in corn.
- Center scientists regularly respond to issues with irrigation scheduling, forage species/varieties, soil health and fertility management in Eddy, Lea and Chaves counties.
- Resident research/Extension scientists respond to insect pest outbreaks in NM.

Research Focus

At the Artesia ASC, cutting-edge research drives sustainable solutions for crop production. Through targeted variety development, strategic irrigation management and water-use efficiency, and a foundation in soil health, the center works to optimize yields, improve soil function and conserve critical water resources across food, forage and fiber production systems.

The Artesia ASC conducts insect research addressing agricultural pests such as the bollworm, alfalfa weevil and pecan weevil, and medically important pests such as kissing bugs. Biological control targets include bollworm, pecan nut casebearer, pecan weevil and alfalfa weevil.



The College of Agricultural, Consumer and Environmental Sciences (ACES) is an engine for economic and community development in New Mexico, improving the lives of New Mexicans through research, teaching and Extension.

Recent Impacts

- Kissing bugs are an increasing concern in Southeastern NM. Data collected indicates the risk of Chagas disease is higher than previously thought, but the biggest concern is the risk of allergic reactions and transmission to dogs who directly consume kissing bugs.
- The finding of resistance to insecticides and field resistance to Bt genes prompt growers to closely monitor the performance of these products. Confirmation of resistance issues is sparking Artesia ASC scientists to look at alternative means of controlling lepidopterous pests, including biological control and the use of okra leaf cotton, in addition to other management practices.
- Maximizing biological control of insect pests saves NM growers money from reduced insecticide applications, reduces environmental impacts, and enhances worker safety. Effective biological control of alfalfa weevil will save NM growers at least $1.5 million per year in reduced insecticide applications and reduced yield losses. Biological control of pecan nut casebearer could save growers $1.6 million on an annual basis. ASC scientists continue to identify key predators of insect pests for viable biological control and conservation.
- Preliminary results indicated that sunhemp is a good summer cover crop in Artesia.
- In response to increasing water scarcity challenges facing Southeastern NM, the Artesia ASC is initiating a targeted research project to evaluate alfalfa-based forage mixtures under deficit irrigation conditions. The study will assess combinations of meadow brome, orchard grass, sainfoin, and cicer milkvetch alongside alfalfa to determine which mixtures deliver the greatest forage yield, nutritive value and water-use efficiency — providing producers with practical, data-driven recommendations for sustainable forage production in the region.



COMMUNITY ENGAGEMENT

Each year, the center carries out research and Extension activities that actively engage local communities. Highlights include our biannual field day — where community members connect with and explore ongoing agricultural research — an entomology and soils workshop for 6th-grade STEM students and participation in county fairs. The center's researchers participate and present their research at several scientific conferences such as annual meetings of American Society of Agronomy (ASA), Soil Science Society of America (SSSA) and American Phytopathological Society (APS).

New Mexico State University is an equal opportunity employer and educator.
NMSU and the U.S. Department of Agriculture cooperating.