



## Development of New Cash Crops for NM: Prospective Production Areas and Markets

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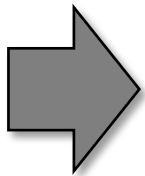
Science, Technology, & Communication Technology Interim Committee

Las Cruces, NM

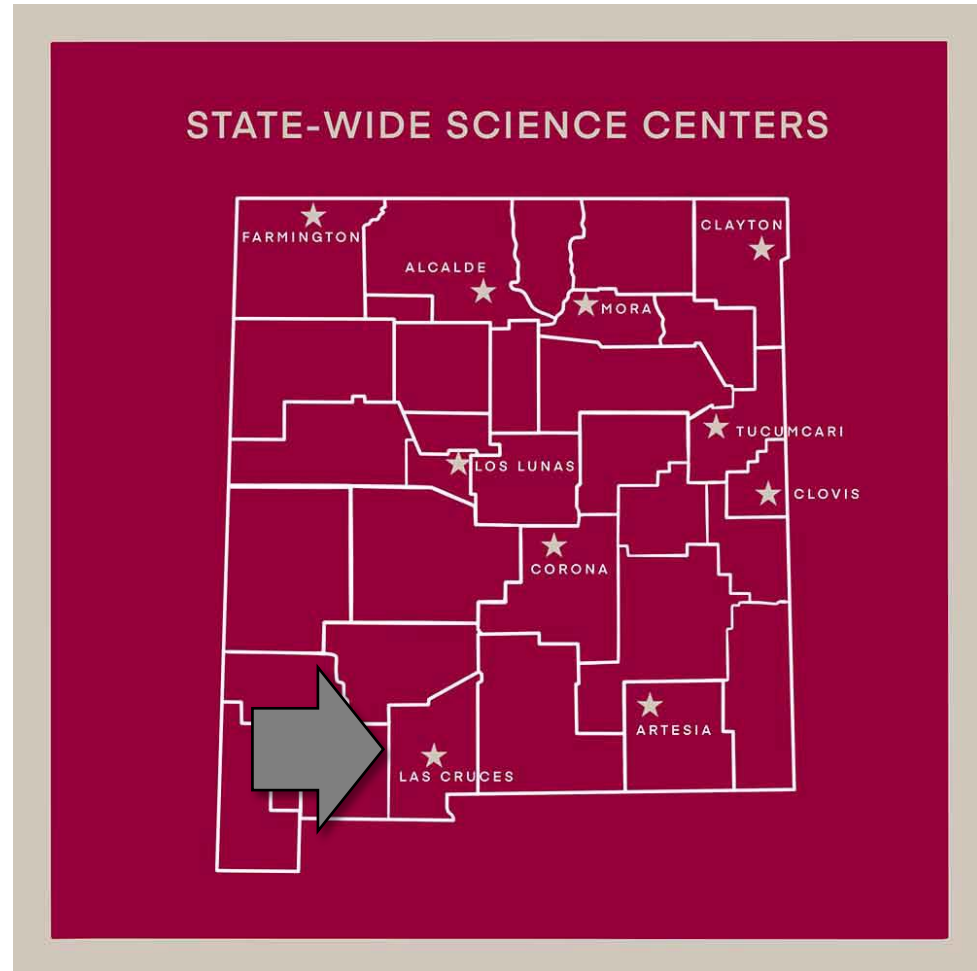
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# The Agricultural Experiment Station

- Research arm for the College of Agricultural, Consumer, and Environmental Sciences
- Faculty, staff, and students on the main campus and twelve science centers



Today's visit will include a tour of research conducted at the Leyendecker Agricultural Science Center



# Leyendecker Agricultural Science Center

- The Leyendecker ASC was purchased in 1969 and consists of 203 acres
- The Center is located approximately eight miles south and west of the main campus
- Research conducted on a variety of crops, including:
  - Cotton
  - Chile
  - Alfalfa
  - Onions
  - Pecans
- Research topics include:
  - Precision farming
  - Drip irrigation
  - Soil health
  - Alternative crops
  - Specialty Crop Pesticides

# The Economic Importance of Agriculture in New Mexico

## Output

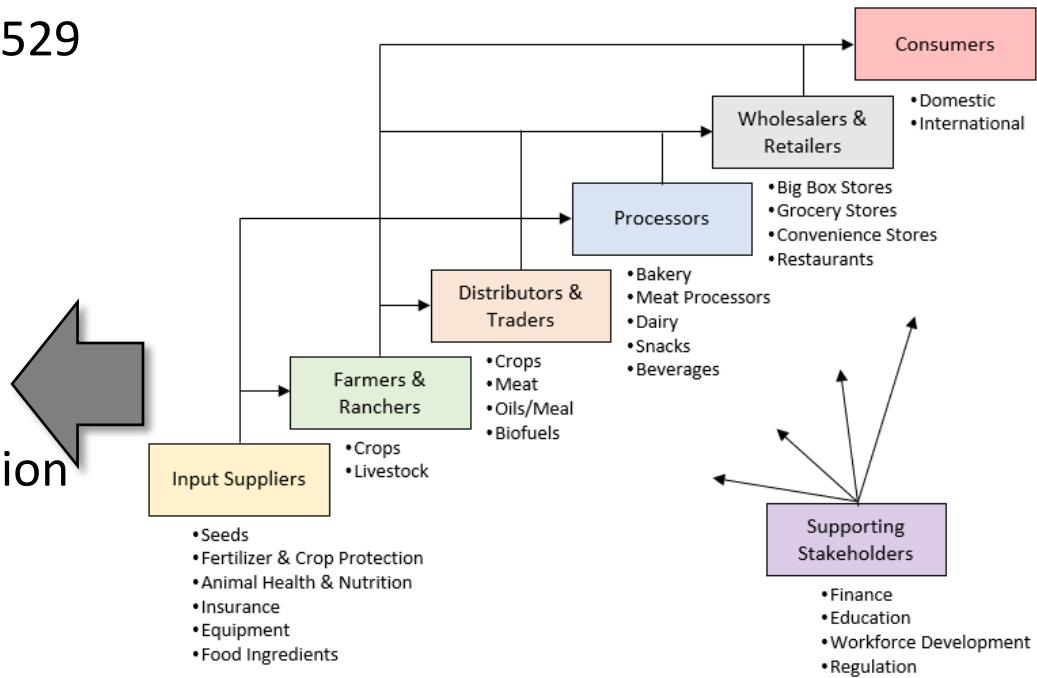
- Direct contribution \$21.0 billion
- Total contribution \$45.0 billion<sup>1</sup>

## Labor

- Direct contribution 144,424
- Total contribution 253,529

## Farmers & Ranchers

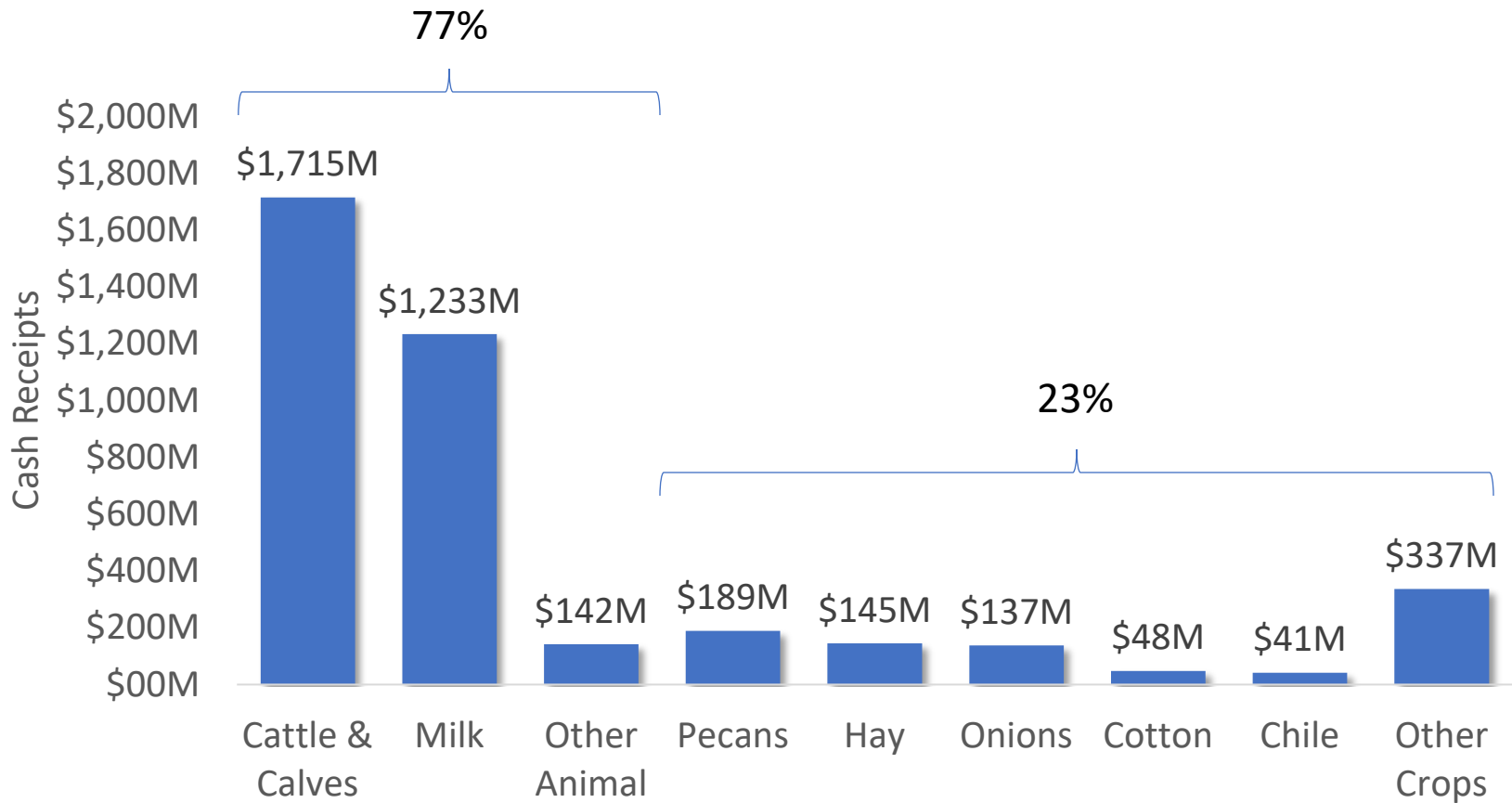
- 20,976 Farms
- 37,023 Producers
- Cash Receipts \$3.99 Million



<sup>1</sup> Feeding the Economy, 2025

# NM Production Agriculture

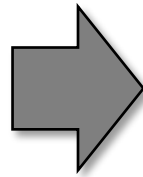
## Cash Receipts



# NM Production Agriculture

Production agriculture –  
National Presence (Rank / % of US Production)

- Chile (1<sup>st</sup> / 44.8%)
- Pecans (2<sup>nd</sup> / 32.1%)
- Cheese (4<sup>th</sup> / 6.5%)
- Onions (5<sup>th</sup> / 5.4%)
- Milk Cows (12<sup>th</sup> / 2.6%)



New crops being explored by  
Agricultural Experiment Station  
researchers:

- Saffron
- Jujube
- Prickly Pear
- Yellowhorn
- Medicinal herbs

# Potential Crops for New Mexico - Saffron

- Derived from the *Crocus sativus* flower
- Each flower yields three stigmas. Requires ~75,000 flowers for one pound of saffron
- Prized for its color, flavor, and aroma
- World's most expensive spice
- Requires a semi-arid climate, with well-drained soils, and full sun
- Domestic production is limited (major producers include Iran, India, Spain, and Greece)



# Potential Crops for New Mexico - Saffron



\$22.99 / 0.035 oz bottle  
\$10,510 per pound



Research suggests that yields in Iran could be as high as 7.38 kg/ha (6.6 lbs/acre).

If those yields can be obtained in New Mexico, at a price of \$22.99 /0.035 oz, the returns per acre are as much as \$63,060.



# Potential Crops for New Mexico – Prickly Pear

- Native to the Americas and well-adapted to arid and semi-arid climates
- Minimal water use, resistant to drought and heat stress
- Produces edible pads (nopalitos) and fruit (tunas)
- Potential uses in food, beverages, natural colorants, and nutraceutical products



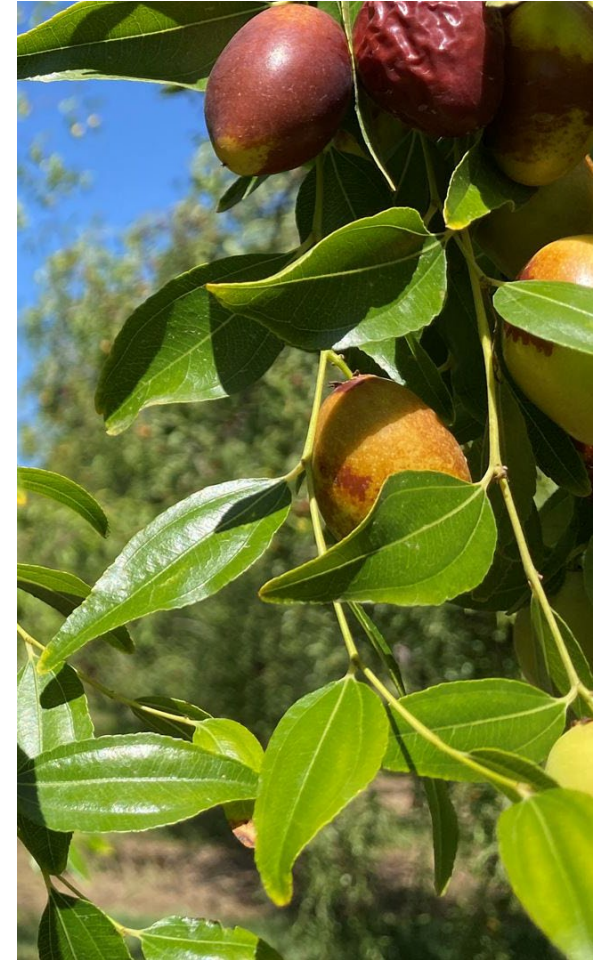
# Potential Crops for New Mexico – Medicinal Herbs

- Growing demand
- Wide range of plant species adapted to semi-arid environments
- Potential high-value specialty crop production and opportunity for diversification
- Maybe be particularly valuable to small landholder farms and processors0



# Potential Crops for New Mexico – Jujube

- A Chinese date domesticated in China more than 4,000 years ago
- Deciduous fruit tree between 15 and 30 feet tall
- Known for nutritional value and ability to adapt to arid and semi-arid environments
- Does well with late frost and is pest-tolerant
- Has a niche market in the U.S. but could expand with market development and value-added processing



# Potential Crops for New Mexico - Yellowhorn

- Small deciduous shrub/tree native to northern China
- Tolerates cold, drought, and poor soils. Suited for semi-arid climates
- Produces edible nuts high in oil (30-40%) with potential for biofuel, culinary use, cosmetics, and pharmaceuticals
- Limited production in the US. Markets will need to be developed



# Returns to Agricultural Research – Other tour components

In addition to learning more about research related to the potential of new cash crops, while at the Leyendecker Science Center you will have the opportunity to learn more about research related to

- Robotics in chile production (harvesting, soil/plant monitoring, and water management)
- AI use in irrigation programs
- Agrivoltaics (solar energy + agricultural production)



# Thank you!



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