

## Overview of CSU Agricultural Experiment Station

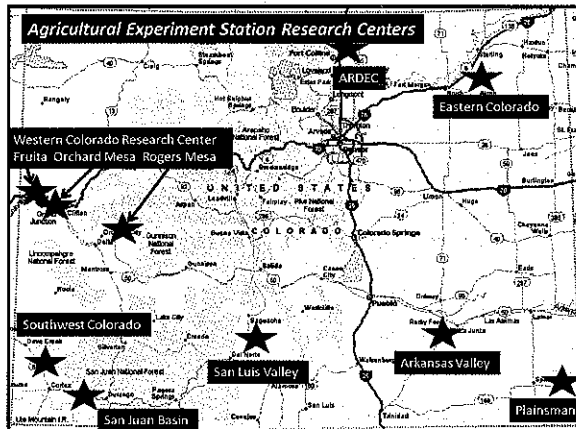
### Mission

Conduct research supporting an agriculture that is economically viable, environmentally sustainable, and socially acceptable

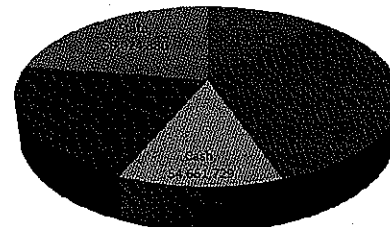


## Departments with AES Research

- Animal Sciences
- Horticulture & Landscape Architecture
- Bioagric. Sciences & Pest Management
- Soil & Crop Sciences
- Agric. & Resource Economics
- Forest, Rangeland, and Watershed Stewardship
- Civil & Environmental Engineering
- Atmospheric Sciences
- Food Science & Human Nutrition
- Health & Exercise Science
- Statistics
- Biology
- Biomedical Sciences
- Sociology



## Total AES Funding FY08



Total: \$40.1M

## AES Programs

- Animal Production Systems
- Plant Production Systems
- Natural Resources and Environment
- Nutrition and Food Safety
- Community Resource Development

## Accomplishments

- **Wheat improvement**
  - 65% of wheat grown in Colorado are CSU developed varieties
  - Economic benefit: \$27M+ per year
- **Potato improvement**
  - 60% of potatoes grown in Colorado are CSU developed varieties
  - Certified seed sales both in and out of state
  - Economic benefit: \$15M+ per year
- **Certified wheat seed and potatoes are assessed a royalty to support CSU research**

### Accomplishments

- **Pinto bean improvement**
  - CSU varieties Bill Z, Montrose, and Grand Mesa are grown on 35%+ of acres
- **Dryland cropping systems increase diversity of crop production and profit**
  - 24 year program in eastern Colorado
  - Transition from wheat-fallow to more intensive rotations
  - Economic benefit: \$22M per year

### Accomplishments

- **Initiated animal identification using retinal scanning**
  - Start-up company OptiBrand was formed
- **Developed new methods to improve meat safety**
  - Techniques adopted by packing plants & meat processors
  - Reduce E. coli and Listeria in meat and other food products
  - Provide training for industry and health care workers in safe food handling practices
  - Developed new video-based meat grading system
  - Contributed to the re-opening of the Japanese market for US meat exports following the BSE issue
  - Economic benefit: Reduced food-borne illness and deaths, decreased recall of contaminated meat, increased meat exports

### Accomplishments

- **Improved vegetable production in the Arkansas Valley**
  - Plasticulture and subsurface drip irrigation
  - Released new variety of peppers
- **Determining water use by crops grown in Arkansas Valley**
  - CWCB funded installation of weighing lysimeter
  - Initial studies will determine water use by alfalfa
  - Impact: Arkansas River Compact

### Accomplishments

- **Disease prevention and control in onions**
  - Pest management can increase yield 10%
  - Economic benefit: \$5M per year
- **Decision support systems for livestock**
  - Data for 7 breed associations in decision support and 18 breed associations for genetic evaluation
  - Estimated economic benefit: \$7M+ per year
- **Colorado Climate Center**
  - Weather data available to public
  - Data available via internet
  - Impact: Irrigation, water resources, emergency planning, engineering and construction

### Contact Information

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