



Colorado State University

COLLEGE OF AGRICULTURAL SCIENCES

Committed to 21st Century Solutions for Food Systems and the Environment

Assuring Meat and Produce Safety and Quality



The goal of this initiative is to assure that U.S. meat and produce are acceptable to domestic and international markets, by scientifically ensuring the superior quality and safety of animal and plant consumables. Our scientists in the College of Agricultural Sciences collaborate with colleagues across the university to conduct food safety and food quality research.

- Develop and evaluate techniques and biosensors for rapid detection of foodborne public health concerns
- Examine animal identification and traceability systems in livestock and meat products
- Enhance nutritional value of meat
- Develop science-based strategies to ensure exports of high quality, nutritious safe foods

Improving Food for Enhanced Human Health

The goal of the Crops for Health program is to reduce the burden of chronic diseases including obesity, diabetes, heart disease and cancer, using food as the vehicle of choice for delivering essential nutrients to the human population. Our research objectives are to understand disease-preventing properties of the plant metabolome and to maximize these properties through plant breeding and the marketing of healthier new crop cultivars.

- Prevent chronic diseases through food based dietary intervention
- Identify specific food crops that reduce the risk of chronic disease
- Identify disease-preventing qualities of major crops



Developing Profitable and Environmentally Sound Beef/Dairy Production Systems



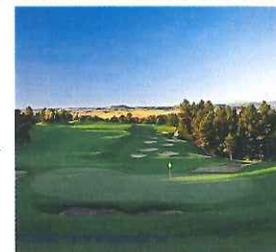
The goal of this initiative is to utilize our resources and strengths in the College of Agricultural Sciences and across the university to produce and optimize sustainable beef and dairy systems that will address the global challenges of hunger and health. The systems being developed will address environmental concerns associated with beef and dairy production, especially those arising from the cattle carbon footprint and the resulting impact on climate change.

- Increase the efficiency and economic viability of beef and dairy production
- Address environmental issues associated with livestock production
- Continue to advance animal welfare
- Enhance global markets for U.S. beef and dairy products

Developing Land Use Systems for Sustainable Agriculture and Urban Environments

Managing land use at the rural-urban interface and capturing benefits while reducing costs is a central challenge for policymakers and stakeholders in Colorado. Land use choices must be guided by sustainability principles and attention to economic tradeoffs. Systems and policies concerning land use options will be developed and stakeholders will be engaged on all levels

- Inventory land use at the rural-urban interface
- Develop multiple options for best use of land resources based on potential benefits
- Formulated science based information that can be used by policy makers for land use decisions



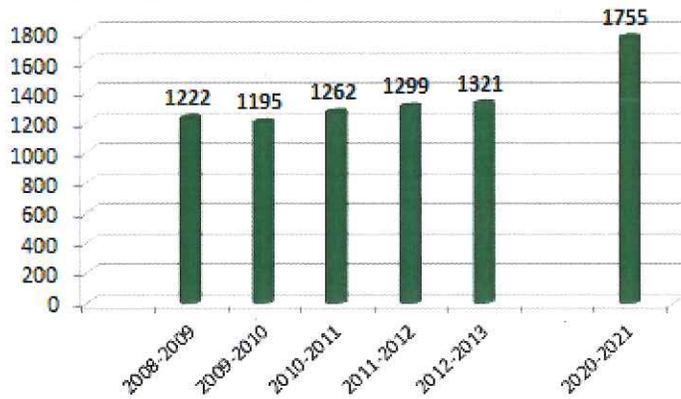
Optimizing Agriculture's Water Footprint



A critical aspect of water management in Colorado is coping with the competing demands for available water. Colorado State University plays a significant role in teaching, research, and outreach related to management of our limited water resources. We are innovators in soil and crop management systems and urban landscape design, and thus are uniquely positioned to address the closely linked global challenges of hunger, health, and climate change issues.

- Develop profitable and environmentally sustainable cropping systems under water limited conditions
- Develop water efficient urban landscapes
- Apply technologies such as GIS to enhance cropping systems under water limited conditions
- Coordinate national and international workshops on water management

Undergraduate Student Numbers on the Rise



Percentage by department

(33% Non Resident students)

- An Sci 52%
- HLA 26%
- DARE 15%
- SCS 7%

Rate of increase since 2010: 42 students/year

Rate of increase until 2020: 54 students/year

Vision 2020



Animal Sciences Remodel

The Center For Agricultural Education



Ground Level Perspective

Project Statistics	
Total open shop space	5,100 G.S.F.
Total office space	1,600 G.S.F.
Lounge space	2,000 G.S.F.
Total classroom space	3,700 G.S.F.
Total common space	1,000 G.S.F.
Total first floor space	14,300 G.S.F.
Mechanical/ storage mezzanine	3,800 G.S.F.
Total building floor space	18,375 G.S.F.

Bird's Eye Perspective

Center for Agricultural Education at ARDEC