



## IMPACT, JOBS AND CONSUMERS

### ECONOMIC IMPACT OF AGRICULTURE AND RELATED INDUSTRIES

	CONGRESSIONAL DISTRICTS				
	1	2	3	4	STATE TOTAL
Population (2021)	797,887	793,302	805,896	795,994	3,193,079
Total Employment (2021)	484,451	519,920	558,073	486,834	2,049,278
Jobs Linked to Ag-Related Industries	62,474	99,406	62,773	133,344	381,545
Percentage of Ag-Related Total Employment	12.9%	19.1%	11.2%	27.4%	18.6%
Total GDP in \$ Billions (2021)	\$46.7	\$53.6	\$67.6	\$48.9	\$216.9
GDP Linked to Ag-Related Industries in \$ Billions	\$7.0	\$11.5	\$7.0	\$16.0	\$44.4
Production ( <i>crops, livestock, forestry, fishing, etc.</i> )	\$2.1	\$2.7	\$1.4	\$6.2	\$12.4
Processing ( <i>food &amp; kindred, ethanol</i> )	\$3.6	\$6.9	\$4.6	\$8.8	\$26.6
Other Ag-Related Manufacturing ( <i>chemicals, machinery, etc.</i> )	\$1.3	\$2.0	\$1.0	\$1.1	\$5.5
Ag-Related Percentage of Total GDP	15.0%	21.5%	10.4%	32.8%	20.5%

### LINKS TO IOWA STATE UNIVERSITY

	1	2	3	4	STATE TOTAL
Education About 60% of undergraduate students enrolled at Iowa State come from Iowa.. <b>Total enrollment was 30,240 (25,386 undergraduate students) in Fall 2022.</b>	2,691	2,985	5,425	4,202	15,303
4-H/Youth <b>Total direct contacts for Extension and Outreach was 871,326 for FY22; however, all data sets are not available by county.</b>	42,120	25,796	17,341	43,889	129,146
Alumni <b>Iowa State has more than 284,326 alumni worldwide, and more than 24,810 College of Agriculture and Life Sciences alumni living in Iowa (46,376 worldwide)</b>	17,477	18,643	42,619	38,931	117,670

\*Linked job and GDP estimates are based on modeling data reflecting Iowa's economy as it was structured in 2019. The sum of economic impact values for the four congressional districts does not always equal the state total. State and district values are obtained from a unique input-output model built specifically for that region. The figures include the direct employment and value added produced within these industries, plus the related spinoff activity that they stimulate in the remainder of Iowa's economy.

### CARET DELEGATES

**Donald Latham**  
Alexander, Iowa  
(641) 692-3546  
Email: donel@frontiernet.net

**Katie Stutsman**  
West Des Moines, Iowa  
(319) 325-4686  
Email: katie.stutsman@corteva.com

**Robert Petrzelka**  
Mt. Pleasant, Iowa  
(319) 254-2232  
Email: bpivo1@gmail.com

**Kevin Ross**  
Minden, Iowa  
(712) 566-3518  
Email: krossfarms@yahoo.com

The Council for Agricultural Research, Extension, and Teaching (CARET) is a national grassroots organization of volunteers. CARET delegates are chosen by their respective land-grant universities to serve as citizen advocates for their state and its land-grant programs. More at [www.aplu.org/CARET](http://www.aplu.org/CARET).

Iowa State University does not discriminate on the basis of race, color, age, ethnicity, religion, national origin, pregnancy, sexual orientation, gender identity, genetic information, sex, marital status, disability, or status as a U.S. Veteran. Inquiries regarding non-discrimination policies may be directed to Office of Equal Opportunity, 3410 Beardshear Hall, 515 Morrill Road, Ames, Iowa 50011, Tel. 515-294-7612, Hotline 515-294-1222, email [eooffice@iastate.edu](mailto:eooffice@iastate.edu)

# RECENT ACCOMPLISHMENTS

REPORT FOR COUNCIL ON AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING (CARET) – MARCH 2023

FROM IOWA CARET REPRESENTATIVES AND  
**IOWA STATE UNIVERSITY**

## CALS RESEARCH FOR APPLICATIONS TODAY

### **Agrivoltaics - Growing Crops in Solar Farm's Footprint**

A multidisciplinary team of ISU researchers is studying agrivoltaics – using solar power sites for agriculture to make more efficient use of the land and create value for communities. The project is possible thanks to public-private investments, including Alliant Energy's development of a solar farm at Iowa State and a large U.S. Department of Energy grant.



### **Improving Genetics to Fight No. 1 Soybean Pest**

Soybean yields are dropping due to damage from the soybean cyst nematode. Iowa Soybean Research Center-supported research seeks to develop new tools and improved genetics to fight North America's most threatening soybean pest.

### **Enhancing Hands-on Learning, Research and Extension in Feed Technology**

The nearly completed Iowa State University Kent Corporation Feed Mill and Grain Science Complex will enhance ISU teaching, research and Extension programs related to feed technology, grain science and animal nutrition. The facility supports a new feed technology minor, preparing students to meet growing demands for skilled professionals in the feed and grain industries.



### **Generating Renewable Energy from Cover Crops**

A multidisciplinary research team is part of a large federal grant to show how generating renewable natural gas from cover crops and prairie grass could encourage conservation practices that sequester carbon dioxide and improve water quality.

## CALS FOUNDATIONAL RESEARCH FOR THE FUTURE

### **Studying Genetic Pathway in Fish to Treat Human Blood Diseases**

ISU researchers are exploring a genetic pathway that could lead to treatments for blood diseases. Funded by a large federal grant, the team is studying pathways in human cells and zebrafish to advance regenerative medicine.



### **Improving Swine Health by Mining Blood Cell Data**

ISU scientists are leading a new study with partners in the USDA-Agricultural Research Service, Genome Canada and the PigGen Canada research consortium to improve selection for disease resilience by studying the most basic components of pigs' blood cells.



## STUDENTS AND TEACHING

### **Mentoring Future Scientists**

The inaugural Biochemistry Summer Research Program at Iowa State supported nine undergraduate researchers, who worked on diverse research projects and gained professional soft skills.

## SERVING IOWANS THROUGH ISU EXTENSION AND OUTREACH

### **Guiding Drought Response**

In response to emergency drought conditions, ISU Extension and Outreach programming helped farmers and landowners prepare. About 90% indicated better understanding of crops under drought conditions, 85% reported improved understanding of weather trends, and 95% indicated improved understanding of crop insurance options.



### **Supporting Mental Health and Wellness for Rural Iowans**

ISU Extension and Outreach is at the forefront of helping rural communities, farmers and youth expand capacity to respond to mental health- and suicide-related concerns. Programs include Mental Health First Aid, the Iowa Concern hotline and QPR: Question. Persuade. Refer.

SCAN THIS CODE  
TO SEE MORE  
ACCOMPLISHMENTS.



## **AG RESEARCH ADVANCES IOWA**

The Iowa Agriculture and Home Economics Experiment Station -- the research division of the College of Agriculture and Life Sciences -- helps Iowa remain a world leader in food production and address societal issues linked to agriculture, economic development, life sciences, the environment, public policy, families and communities.

- CALS ranks in the top five nationally for faculty with federal research grants and in the top six for the total number of federal grants out of 60 agricultural colleges (Academic Analytics, 2022)
- CALS is a leader in applying science and bringing it to commercialization.
- The Experiment Station has attracted about \$60 million in external funding in each of the last five years.

## **99-COUNTY CAMPUS**

With a presence in each of Iowa's 99 counties, Iowa State University Extension and Outreach connects Iowans to researchers at Iowa State and throughout the land-grant university system. The Agriculture and Natural Resources Extension network includes campus-based state specialists and field specialists throughout the state who specialize in agricultural engineering, commercial horticulture, food safety, farm management, agronomy, natural resources, beef, swine and dairy.

- 149,426 contacts at 4,222 meetings, workshops, field days and virtual events in 2022.
- Archived presentations and online courses in agriculture and natural resources reached 629,408 participants in 2022.
- 36,674 face-to-face, phone and email contacts were made throughout 2022, and 2,203 contacts were made with news media.

## **THE CALS ADVANTAGE**

CALS offers opportunities for students to hone skills in their disciplines, as well as in leadership, communications, innovation and entrepreneurship. Extensive study-away offerings also open horizons to apply knowledge and gain cultural competency.

- CALS offers 26 undergraduate majors and 35 graduate programs.
- CALS hosts the nation's largest career fair. Placement has been 97% or higher for 24 consecutive years.
- CALS provides \$4 million in scholarships annually.
- Public/private investments support state-of-the-art student learning spaces such as the Off-Highway Vehicle Chassis Dynamometer Laboratory and Stanley L. Balloun Turkey Teaching and Research Facility.