ISU Extension and Outreach’s Ag and Natural Resources program provides farmers, policy makers, regulators, and agribusiness professionals the opportunity to learn from research-based education to inform their decisions, which leads to a sustainable agriculture and environment. In turn, this benefits all Iowans by ensuring clean water, profitable farms, thriving communities, and a more secure food system.

**ELECTRONIC MEDIA INTERACTIONS**

ISU Extension and Outreach Ag and Natural Resources engaged with Iowans through a variety of online platforms. ANR websites received 9,430,294 WEBPAGE VIEWS from 5,288,901 unique VISITORS. Specialists provided information to 91,932 FOLLOWERS on SOCIAL MEDIA.

**SHARING OUR RESEARCH**

ANR staff authored 479 RESEARCH ARTICLES and TECHNICAL PAPERS. 1,994,189 PRINT PUBLICATIONS were downloaded or distributed from the ISU Extension Store. Specialists made 745 DIGITAL PRESENTATIONS, reaching 122,958 VIEWERS.

**DESIGNING FOR ALL**

90 ANR PUBLICATIONS made fully ACCESSIBLE as part of ISU Extension and Outreach’s eAccessibility initiative. These publications had a combined 307,957 DOWNLOADS from the ISU Extension Store.

**BUILDING RELATIONSHIPS**

201,821 CONTACTS were made at 1,961 MEETINGS, WORKSHOPS AND FIELD DAYS. ANR specialists made 7,842 INDIVIDUAL FACE-TO-FACE CONTACTS while communicating with constituents 40,762 times on the phone and through email.
**ECONOMIC IMPACT**

**MASTER GARDENER**
More than **115,000** pounds of fresh fruits and vegetables were donated to **FOOD PANTRIES and FOOD BANKS** across the state by **22 IOWA MASTER GARDENER ORGANIZATIONS**. The donations provided more than **345,000 servings** of fruits and vegetables and were made possible by more than **$50,000** in grant funds.

**THISTLE CATERPILLAR RESPONSE**
An unusual influx of **THISTLE CATERPILLARS** during the growing season led field agronomists and extension entomologists to provide **SOCIAL MEDIA UPDATES, DIRECT CALLS and FIELD VISITS** to producers. A follow-up survey showed the information to be **worth $11-$15 per acre** to producers, for a total of **ECONOMIC IMPACT** of **$700,000 to $1 million**.

**PRODUCE SAFETY FOR GROWERS**
**211 PEOPLE** attended **PRODUCE SAFETY ALLIANCE COURSES**, increasing their knowledge about how to **SAFELY GROW PRODUCE**. In the last three years, this training has been held across the state, with every county either hosting a training session or having one available in an adjacent county.

**SMALL BUSINESS ASSISTANCE**
The Farm, Food and Enterprise Development program provided technical assistance to Iowa small businesses, helping their clients receive more than **$2 million** in loan funding, while **retaining or creating at least 94 jobs**.

**LOCAL SCHOOL MEALS**
**11 IOWA SCHOOLS** representing **10 school districts** partnering with the Farm, Food and Enterprise Development program Food Systems team launched **22 new farm to school activities** and spent **$14,132** on local food. Six of the schools surpassed their goal of **increasing their local food procurement by 10%**.

**FEED SAFETY**
A food and feed safety program with the Center for Industrial Research and Service conducted **9 PROJECTS** with industry clients, creating an **estimated economic impact of over $11.5 million**. Clients were also able to **retain 49 jobs** through the program.
MANAGING RISK

SWINE BIOSECURITY TRAINING
More than 350 swine producers attended BIOSECURITY TRAINING and learned how to minimize common biosecurity mistakes. Changes made by producers after receiving training was valued at $6,361 per producer, or a cumulative value of over $2.2 million.

MANURE APPLICATION
Manure Applicator Certification programs were presented to 1,388 FARMERS and 2,733 COMMERCIAL MANURE APPLICATORS through both face-to-face meetings and DVD viewings. Additionally, 864 applicators participated in online MAC courses through the Iowa DNR website.

FARM FINANCES
Navigating tight margins and low commodity prices is a challenge for Iowa farmers. 78 individuals completed requirements for the FINANCIAL DECISION MAKING course, which allowed them to meet requirements for USDA loans. Additionally, 6 FARM FINANCIAL ASSOCIATES spent 330 hours with 80 farm families in one-on-one discussions regarding their farm finances.

PROFITABILITY

STUDY ELEVATES BEEF PRACTICES
The Iowa Beef Center completed a four-year study in 2018 that assessed emerging beef cow management technologies, evaluated production and developed decision tools. The results of the study were disseminated through bus tours, regional conferences and workshops, with participants noting an average economic impact of the information at $16.46 per cow, or $158,674 total for all attendees.

SEMINARS FOR DAIRY AG LENDERS
100% of ag lenders who attended AG LENDER DAIRY SEMINARS said they were completely or mostly satisfied, with an estimated benefit of $35,178 for their farmer clients.

AGRICULTURAL CHEMICAL DEALER UPDATES
As retailer consolidation continues in agriculture, retailers are covering more and more acres. 145 ag retailers, seed dealers and crop consultants attended two AGRICULTURAL CHEMICAL DEALER UPDATE sessions, with those attendees having an impact on 1.1 million acres of crops. This model of train-the-trainer information allows for an efficient delivery of information that attendees can in turn provide to farmers and other clients.
The Master Conservationist program was held in 9 LOCATIONS across the state, with 145 PEOPLE completing the course. The standard course format consisted of 12 hours of in-person educational contact time and 19 hours of online supplemental learning.

**RUSLE2 UPDATE AND TRAINING**

Updated software of the Revised Universal Soil Loss Equation (RUSLE2) was released, with training held for farmers, technical service providers, and agency staff members. Workshop attendees found the information presented to be valued at $1.02 an acre on 131,000 acres they worked with or managed.

**RECOGNIZING AND MANAGING FARM STRESS**

With uncertainty in the crop market and stress among farmers at high levels, information about recognizing and managing farm stress was presented at 93 FARM BILL MEETINGS across Iowa reaching 4,000+ INDIVIDUALS. Working in tandem with experts from Human Sciences Extension, information on strategies and resources available to combat farm-related stress was provided to attendees.

79% of attendees agreed that they were willing to engage in conversation with someone who was distressed or potentially suicidal. Additionally, 77% agreed they could ask a person in distress tough questions about their mental health, while 86% indicated they were now more aware of available resources should they choose to engage with someone who is distressed or potentially suicidal.