

Institute of Agriculture and Natural Resources — AT WORK FOR NEBRASKA

Agriculture remains the No. 1 industry in Nebraska. In 2006, the Nebraska Policy Institute reported that 31 percent of the state's total employment derives from agribusiness. That's up from 25 percent in 1990. That means that even as Nebraska's population, like that of much of the nation, is shifting to urban areas, agriculture is becoming *more important* to the state's economy, not less.

The University of Nebraska long has recognized agriculture's central role in the state. The Institute of Agriculture and Natural Resources (IANR) at the University of Nebraska–Lincoln is Nebraska's primary provider of agriculture and natural resources programs in support of Nebraska agriculture and a primary engine for economic and social sustainability and growth in Nebraska.

The state's investment – the taxpayers' investment – in IANR pays off many times over – conservatively estimated at 15 to 1. IANR received \$71.6 million in state funds in the 2005 fiscal year. Here's what taxpayers got in return:

- **Well over \$750 million in annual benefits from the Institute's research, teaching and extension activities. That's measured in improved economic output and savings – in other words, real money in real Nebraskans' pockets.**
- **About \$338 million in annual benefits through the economic ripple effects of IANR's doing business in Nebraska – paying employees, buying products and supplies and having that money multiply throughout the state's economy.**

A key to IANR's work for Nebraska is its holistic nature: It integrates research, teaching and extension education activities to provide realistic, workable programs for Nebraskans in their homes, on their farms and ranches, in their businesses and in their communities. IANR focuses its expertise on agriculture and food programs, natural resources, families and communities to help Nebraska grow an environmentally sound, economically viable, and socially responsible future.

Here's what we do, and some examples of how we do it:

- ▶ **IANR is an innovation engine for the state**, using science to develop and test new technologies and bioscience innovations to sustain the current agriculture economy and **to power a new economy based on bioscience discoveries.**
IANR research into the feasibility and economics of feeding cattle wet byproducts from the ethanol and grain processing industry has helped encourage the 10-fold increase in the state's ethanol production capacity since the early 1990s. The benefits to cattle producers are significant, too: Feeding byproducts wet instead of dry has resulted in a benefit of nearly half a billion dollars from 1992 through 2006.
- ▶ **IANR is a pragmatic disseminator of the latest in research and technologies to enhance productivity and expand the economic base of Nebraska.**

Research IANR scientists did with University of Florida colleagues led to new beef products that added \$50-\$70 in value per head over the past seven years. Jan. 1, 2006, Nebraska had 2.6 million cattle on feed. At \$50 per head, that's \$130 million more in 2006 alone.

- ▶ **IANR has a track record in applying technology and enhancing productivity** to ensure Nebraska's competitiveness in a global marketplace.

IANR-developed wheat varieties that perform well in Nebraska fields are worth roughly \$30 to \$35 million annually to Nebraska producers, based on increased yield alone.

- ▶ IANR is **focused on education, seeking to significantly enhance human capital**, generate new scientists and well-educated practitioners, and promote lifelong learning across the state.

Historically, about 70 percent of graduates of the College of Agricultural Sciences and Natural Resources, part of the Institute, stay in Nebraska, providing the know-how to fuel Nebraska's agbioscience economy and other sectors.

- ▶ IANR **provides a statewide network** linking communities, businesses and the general population to the intensive research and technical resources of the University of Nebraska.

IANR's extension division has offices in 83 of Nebraska's 93 counties and research and extension centers in four cities, putting University expertise on the state's "front lines."

- ▶ IANR is flexible, using integrated, cross-disciplinary approaches in **tackling complex problems in scientific, economic and social areas.**

IANR scientists are working with colleagues elsewhere in the university on the Sandhills Biocomplexity Project, a study that seeks to understand the interactions that formed, and continue to change, Nebraska's unique Sandhills.

- ▶ IANR **works to enhance and sustain the environment and quality of place in Nebraska**, ensuring the attractiveness of the state for human capital and new ventures.

An extension demonstration project in the Republican River Basin focuses on teaching producers to achieve nearly full yields with less water. The project showed a water miser strategy used 31 percent less water while reducing corn yields only 3 percent. Pumping cost savings usually more than offset yield loss. Overall estimated value of knowledge gained in 2006 was \$2.4 million, according to 130 producer participants.

- ▶ IANR **emphasizes youth development and leadership**, helping to provide the next generation of New Economy workers and leaders.

4-H, part of IANR's extension division, is a national leader in youth participation, reaching 118,000, or one of every three eligible, Nebraska youth yearly.

Much of what is required for 21st century success – innovation, technology transfer, human capital enhancement, productivity improvement, networking and quality of environment and place – is directly addressed by IANR. That positions the University, through IANR, on the cutting edge of Nebraska's future.

No state tax funds were used in financing the Battelle study.

THE POWER OF RED.™ AT WORK FOR NEBRASKA.

Visit atworkfornebraska.unl.edu for more information about how IANR is at work for Nebraska.