



KEY C-FAR OUTCOMES

While C-FAR research addresses the broad range of needs and opportunities within Illinois' food, agricultural, and related sectors, the following is a representative sampling of recent outcomes that have been realized.

Illinois Center for Soy Foods

Established through C-FAR funding, this research and development center is promoting soy foods in the U.S. and internationally. From developing healthful soy-based recipes to providing a protein source for children suffering from malnutrition, the center benefits consumers and increases the demand for Illinois soybeans.

Water quality nutrient standards

The most extensive study of Illinois surface waters is assisting in the development of nutrient standards. Partners in this historical study included the Illinois Department of Agriculture, Illinois Environmental Protection Agency, and U.S. Environmental Protection Agency.

Biomass energy crops

Miscanthus, a tall perennial grass, is being developed as a potential new energy crop for Illinois. In addition to probing the viability of this crop as an alternative Illinois energy source, this groundbreaking research was directly responsible for a \$100 million grant being awarded to the University of Illinois at Urbana-Champaign for the establishment of an Energy Biosciences Institute by an international energy company.

Human nutrition and health

Higher protein diets and certain foods have been proven to reduce disease and improve consumer health. Breakthrough discoveries are unveiling that certain food properties have a very high likelihood of reducing breast and prostate cancer.

Livestock and urban waste recycling

Revolutionary technologies are providing solutions to growing waste management concerns. Illinois livestock and urban/suburban waste are being recycled to produce a value-added compost product called Sweet Earth, which has been approved by the Illinois Environmental Protection Agency.

Ethanol production and co-products

As ethanol production in Illinois increases, so does the availability of distiller's grains, a co-product of the ethanol distillation process. Researchers continue to enhance the nutritional value of distiller's grains as a value-added livestock feed ingredient ensuring that Illinois' corn and livestock industries benefit from this new dynamic in Illinois agriculture.

Farmdoc

Illinois agricultural producers and related professionals are using the farm management tools and information available on the Farmdoc website to better manage their businesses. A C-FAR strategic research initiative on information technology fostered this revolutionary web-based resource of valuable tools and up-to-date information.

Illinois' livestock industry

Developments in the use of distiller's grains, production management tools and resources, and new marketing networks are enhancing Illinois' livestock industry. The benefits of Illinois' ethanol industry are being extended to aid the state's livestock industry through discovery of ethanol co-product uses in livestock feed rations.

Illinois crops prepared for future

The largest open-air research facility of its kind is determining the effects of expected future atmospheric conditions of rising atmospheric carbon dioxide and surface ozone on Illinois crops. Illinois' \$10.1 billion crop industry is being prepared for the adverse environmental changes that are expected to decrease yields without appropriate crop genetic and/or management changes.

Leveraging of C-FAR dollars

By leveraging C-FAR appropriations, Illinois researchers have obtained hundreds of millions of dollars from federal, private, and other sources to support food and agricultural research in Illinois. This funding further spurs the state's economy. From FY03 to FY07, while State of Illinois C-FAR appropriations totaled \$22.8 million, the amount of funding garnered from these and previous C-FAR investments was a staggering \$103 million.

Child and Adolescent nutrition and health

Research discoveries and outreach programs are working to reduce the prevalence of childhood obesity and foodborne diseases of children and adolescents in Illinois. From incorporating more nutritious foods and exercise into their lives to washing hands prior to meals, Illinois youngsters are learning how to reduce their risk of sickness and improve their health.

Improved corn and soybean varieties

Researchers are working to uncover the biological functions for corn and soybean crop-specific genes that could lead to varieties with increased yields, improved disease resistance, and enhanced human health properties. Bioinformatics, molecular biology, and genetics are being integrated to add functional information to crop genomes and evaluate the potential for crop improvement.

For a more extensive set of C-FAR research outcomes, see <http://www.ilcfar.org/research/outcomes09.pdf>