While the State of Illinois works to develop its fiscal year 2005 budget, hundreds of thousands of stakeholders from Illinois' food, agriculture, and related sectors are looking to the future of their industries and Illinois in general. In February, the Governor’s proposed FY05 state budget provided no funding for the budget line item commonly called the C-FAR appropriation—the food and agricultural research line item in the state budget. The C-FAR appropriation has been reduced over the past two years from $15 million in FY02 to $6.9 million in FY03 and to $4.9 million in FY04. “There is great concern over the significant negative impact a zero appropriation for C-FAR in FY05 would have on our state’s top industry,” said C-FAR Chairman Alan Puzey.

Food, agricultural, and related industries represent a driving force in Illinois’ economy. One of every four Illinois citizens has agriculture-based employment. Illinois’ agricultural commodities generate more than $9 billion annually, and billions of additional dollars flow into the state’s economy from agriculture-related industries, such as farm machinery manufacturing, agricultural real estate, and the production and sale of value-added food products. Food processing is the state’s top manufacturing activity, generating almost $13.4 billion annually. Nearly $3 billion worth of agricultural commodities are exported to other countries each year, with Illinois ranking second in the export of both soybeans and feed grains and related products. “From being in the seed industry, I know firsthand how critical research is to the advancement of knowledge and technologies. And the importance of this research spans across every sector imaginable—whether it is seed germination, nutrition, or turf management,” said Nels Kasey, C-FAR board member and research chair.

C-FAR is an extraordinary partnership of Illinois citizens who have come together in an unprecedented collaborative effort to strengthen Illinois’ food, agriculture, and related sectors. The organization has been recognized nationwide as an example of a premier public-private partnership.

Via C-FAR, an extremely effective integration of research has been created across the University of Illinois at Urbana-Champaign, Southern Illinois University at Carbondale, Illinois State University, Western Illinois University, and several other research entities across the state. This new dynamic is extremely meaningful in terms of avoiding duplication of
Greetings

GRASPING THE IMPORTANCE

As I write this column, the fate of the C-FAR FY05 appropriation is unknown. However, there are certainly several facts which are known regarding the appropriation. While the mere idea of the FY05 appropriation being eliminated is daunting, it has caused an unprecedented and positive awareness of just how important this investment is to our state. Many headlines could be written and let me share just a few in this column.

It is the appropriation. The C-FAR appropriation is the only viable funding appropriated by the State of Illinois to directly conduct food and agricultural research. This stands to reason, as the growth in our state’s capacity to conduct this type of research during the past eight years has been due to the establishment of and increases in the C-FAR appropriation.

Illinois’ attractiveness. Quality research that results in tangible benefits materializes because of talented people leading these efforts. These benefits are not a product of computers or some other type of equipment; these results occur because highly qualified experts are leading the work. Illinois’ ability in continuing to be a food and agricultural leader rests not only with industry professionals, but with the best scientists supporting these professionals’ work. These scientists, who come to Illinois because they have expertise in Midwestern issues, support our industry with research geared to the needs of Illinois. The C-FAR appropriation has been a significant factor in Illinois’ ability to recruit and retain the nation’s best scientists.

Midwest underdogs. There is no doubt that agriculture and a host of related sectors are currently in a dynamic state of change. Those states with the intellectual capacity to adapt to these changes will advance; others will lose their competitiveness and ultimately agriculture will not be the economic stimulator it could have been. So, how does Illinois fare compared to other Midwestern states in its investment in food, agricultural, and related research? It ranks next to last in the Midwest—just ahead of Missouri. Every other Midwestern state makes a greater investment than does Illinois. In some cases, a substantially higher investment.

Is it that serious? When one analyzes how a state conducts research and the other options available, such as alternative funding, the answer is a resounding “yes.” The overriding reason the C-FAR appropriation was started in FY96 was because we, as a state, were losing significant ground in terms of our research capacity. The C-FAR appropriation has allowed our state’s educated and dedicated food, agricultural, and related research effort to advance next to last in the Midwest—just ahead of Missouri. Every other Midwestern state makes a greater investment than does Illinois. In some cases, a substantially higher investment.

I could list many more such headlines. However, these few I have detailed are reason enough to be extremely proud of what we, together with the State of Illinois, have accomplished. Grasping the importance of this appropriation is paramount for Illinois to continue being a leader.
The Illinois Center for Soy Foods (ICSF) located at the University of Illinois at Urbana-Champaign is a shining example of how C-FAR funding can provide seed money to help establish a high-impact program. Funded through the UIUC C-FAR Sentinel Program, the Center was established to promote the consumption of soy foods, thereby providing benefits to soybean growers, processors, and consumers in Illinois. UIUC food scientists Barbara Klein and Keith Cadwallader are co-directors of the Center. “The ICSF capitalized on existing strengths at UIUC in the area of soy foods research, and was intended to help consumers understand the health benefits of soy and how to incorporate it into their menus. Processors need to know how to produce food products that are acceptable. C-FAR funding enabled us to enhance the facilities and personnel involved in soy foods research and leverage outside funding,” said Klein.

ICSF is an integrated, multidisciplinary initiative addressing: (1) soy product development, (2) soy consumer acceptance, (3) soy processing technology transfer, and (4) soy education and outreach. Researchers are investigating innovative ways to...

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Soy to the World

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C-FAR held its 2004 Annual Meeting of the Membership on February 17 at the Northfield Inn, Suites & Conference Center in Springfield. The meeting was well attended by members from across the state. “Yet again, more than 150 C-FAR members attended our annual meeting. This is a clear testimonial of the importance the leadership of our food, agricultural, and related sectors place on a viable food and agricultural research program in Illinois,” said Alan Puzey, C-FAR chairman.

During the business portion of the meeting, members discussed the importance of the C-FAR FY05 appropriation. An update on the spring session of the 93rd Illinois General Assembly was provided by C-FAR legislative consultant Herman Bodewes. Members planned to contact their state legislators to communicate the critical need for a viable food and agricultural research program in Illinois. C-FAR committee chairs provided membership, treasury, legislative, and research activity reports to the membership.

Three individuals were elected to serve on the seven-person board of directors. They include Larry Fischer (Quincy), Alan Puzey (Fairmount), and Steve States (Shawneetown). The following officers were elected at a Board of Directors meeting on March 11: Alan Puzey, Chairman; David Downs (Allerton), Vice Chair; Fred Bradshaw (Ginggerville), Secretary/Treasurer; Larry Fischer, Membership Chair; Nelis Kasey, (Paris), Research Chair; and Karen Little (Pleasant Plains), Research Vice Chair. Additional committee chairs and members are being considered and will be appointed by Chairman Puzey upon approval by all Board members.

Special recognition was given to retiring director Carol Keiser for her service on the board of directors and contributions to C-FAR. “When C-FAR was organized ten years ago, no one could have fathomed how fortunate we were going to be with the unselfish, volunteer contributions of individuals like Carol,” said Kraig Wagenecht, Executive Administrator. “Her contributions exceed the vibrant membership which she has worked to build; her contributions are rooted in a deep passion for C-FAR and what we strive to accomplish.”

The C-FAR working groups met to elect chairs and vice chairs to serve in 2004. The new working group leadership includes:

**Expanding Agricultural Markets:**
- Dan Kelley (Normal), chair and Heather Hampton Knodle (Filmore), vice chair

**Rural Economic Development:**
- Kae Hakes (Galesburg), chair and Carl Neubauer (Downs), vice chair

**Agricultural Production Systems:**
- Molly Ann Godar (Rochester), chair and Anne Builta Crider (Arrowsmith), vice chair

**Human Nutrition and Food Safety:**
- Jeanne Hartland (LaFayette), chair and Jim Fraley (Bloomington), vice chair

**Natural Resources:**
- Byford Wood (Breese), chair and Dale Crawford (Sullivan), vice chair

Meeting attendees also heard summary presentations given by research leaders of the five C-FAR strategic research initiatives (SRIs) which ended in June 2003. These five-year, targeted initiatives focused on food safety, information systems and technology, rural community development, swine odor and waste management, and water quality.

**FARMDOC RECEIVES 2004 ACHIEVEMENT AWARD**

A highlight of the C-FAR annual meeting was the presentation of C-FAR’s 2004 Donald A. Holt Achievement Award. Each year, C-FAR recognizes a C-FAR-funded research team that has demonstrated outstanding and innovative team research and outreach that addresses priorities of Illinois’ food, agriculture,
and related sectors. This year, Illinois Department of Agriculture Director Charles “Chuck” Hartke joined Dr. Donald Holt, a longtime advocate for practical and sound food and agricultural research, in presenting the award to the farmdoc research team: Scott Irwin, Paul Ellinger, Darrel Good, Robert Hauser, Dale Lattz, Joao Martines, Gary Schnitkey, Bruce Sherrick and Donald Uchtmann. The farmdoc team was honored for their work to develop Web-based resources and decision tools to assist agricultural decision makers.

“The farmdoc team’s work will continue to generate a high return on this public investment, thereby meeting the expectations and fulfilling the vision of C-FAR’s founders and current member organizations,” said Holt.

Members of the farmdoc team are faculty and staff in the Department of Agricultural and Consumer Economics in the College of Agricultural, Consumer and Environmental Sciences (ACES) at the University of Illinois at Urbana-Champaign. University of Illinois Extension educators who are members of the farm business management and marketing team are also affiliated with the project.

The farmdoc project was initiated in 1999 with the goal of developing innovative and comprehensive programs to improve farm decision making through education and research. Funding for the project was provided by the State of Illinois through C-FAR’s Information Systems and Technology Strategic Research Initiative (IT-SRI). The heart of the project is the website found at www.farmdoc.uiuc.edu. The website is organized around the general agricultural topics of finance, law and taxation, farm management, marketing and outlook, and agricultural policy, and includes information on specific issues such as crop insurance and the performance of market advisory services.

“The farmdoc project was developed in recognition of the increasing use of the Internet by agricultural decision makers, and their desire for more information and decision analysis that is relevant, in an easily consumable form, and conveniently available,” said Scott Irwin, farmdoc team leader. “The overall goal of the project has been to provide decision makers in agriculture with round-the-clock access to integrated information and expertise on important management topics.”
Milkweed Blossoming as a Potential New Crop for Illinois Producers

Typically thought of as a nuisance weed, the milkweed plant is beginning to take seed and gain attention as a potential new cash crop for Illinois producers. Research taking place through Western Illinois University’s alternative crops research program is examining how to grow and harvest milkweed as a new commercial crop. Established through support from C-FAR, the WIU program focuses on the development of new, alternative crops that are well-suited to local growing conditions and have the potential to substantially increase income for Illinois producers.

Win Phippen, an associate agriculture professor at WIU specializing in breeding and genetics of alternative crops, is leading the milkweed research effort. Phippen is the only researcher in the United States working on establishing milkweed as a crop and has been working nearly three years creating a “domesticated” milkweed plant. “While the domestication and commercialization of any new alternative crop is a long-term process, we believe milkweed offers enormous economic potential for Illinois producers,” said Phippen.

Milkweed has been successfully grown on WIU’s research farm, but many issues must be addressed before farmers can adopt this new crop. Economical methods for seeding the plants, controlling disease and insects, and harvesting the crop are being investigated. And while the unintentional spread of the plant to neighboring fields is a concern, the milkweed floss is harvested while the plants are green and the pods immature so if the crop is properly managed, milkweed contamination of other fields is unlikely.

Since 2001, Phippen has been working with the Nebraska-based company Natural Fibers Corp. to provide the company with milkweed floss, which is used as non-allergenic fill in pillows and comforters. The company currently hires high school students to search for milkweed plants and hand collect the floss. Phippen and his colleagues are working toward the commercial production of milkweed so it can be harvested like cotton. The current price for milkweed floss is $3 to $5 per pound with yields averaging about 900 pounds per acre. Researchers are investigating many aspects of milkweed production, including identifying milkweed plants with desirable characteristics for production and breeding, optimal planting densities within and between rows to assure high pod yields, determining the most productive planting dates, insect control methods, weed control strategies, and potential new harvesting methods to maintain milkweed floss quality.

As part of Illinois Governor Rod Blagojevich’s Opportunity Returns regional economic development plan, the state will be extending support to WIU to contract milkweed growers. The grant will be used to start 150,000 plants in a greenhouse and then transplant the plants to five acres of land belonging to a local producer. “This acreage will be the first commercial milkweed field in the nation,” said Phippen. “The first year of this pilot project isn’t going to be significant as the plants will need to establish and grow; the second year is going to be the year that will give the producer those flowers and floss.” In addition to the floss, the harvesting of milkweed seeds offers economic potential as well. The seed oil is rich in Vitamin E and used by the cosmetics industry.

“While Illinois will certainly remain a leading corn and soybean producing state, alternative agricultural enterprises can complement these traditional crops in regions of the state where it is cost-effective. We are extremely proud that C-FAR was able to help launch this alternative crops research program at WIU,” said Nels Kasey, C-FAR board member and research chair.

Phippen’s milkweed research will be highlighted July 22 at the WIU Alternative Crops Field Day on the university’s research farm in Macomb.
increase usage of soy in both individual households and the food service sector. A wide assortment of prototype soy–fortified foods are being developed and tested for acceptance in the marketplace. Soy Source, a retail site on the UIUC campus, test markets new soy foods during the school year. To increase consumer awareness about new, high-quality soy foods, the Center holds an annual soy foods tasting event. Institutional food service managers, restaurant operators, food critics, dietitians, and leaders of community-based organizations are among those invited.

A cookbook series called Soy in the American Kitchen describes how soy products can easily be used in the kitchen. The first two books in this series, Tofu in the American Kitchen and Textured Soy Protein in the American Kitchen, were published in 2002. A third cookbook, Baking with Soy, was published in 2003. Consumers can also order a Soy Starter Kit® that includes soy flour, textured vegetable protein, organic soy milk and organic vanilla soy milk, firm silken tofu, and a starter recipe booklet. “The cookbooks and kit help people try soy foods and become familiar with the diversity of products that are available,” said Klein.

ICSF scientists have developed a high energy, nutrient-dense nutrition bar intended to be used around the world as a “first response” food during a crisis caused either by natural disaster or war. “Soy is ideal for this product because it’s essentially a perfect protein,” said Cadwallader. “Hopefully, this product will influence food companies to start using more soy in their protein bars.” A high-protein, high-energy bun has also been developed as a mid-day snack for vocational training programs in developing countries.

As part of their education and outreach effort, ICSF personnel have spoken at schools, community organizations, and national and international food science and dietetics meetings about the health benefits of soy and the ease of using it. The Center launched a new initiative called “ISoy: A Better School Lunch with Soy.” With support from industry ( Archer Daniels Midland Co.) and the Illinois Soybean Checkoff Board, ICSF is working with school lunch programs, teachers, and students in elementary schools. The goal of ISoy is to address concerns about obesity in American school children by helping to introduce healthful soy products into the classroom and lunchroom. Together with the WISHH (World Initiative for Soy in Human Health), the Center runs workshops for private volunteer organizations and international processors. The Center also provides research and technical services to food companies interested in developing new soy products.

In addition to C-FAR, the National Soybean Research Laboratory based at UIUC provides support for the Center. Scientists have also obtained grants from the Midwest Food Manufacturing Alliance (MAFMA), ADM, and Cargill to study soy and develop new products. In addition, researchers supported by the Center have received large grants from the USDA, American Soybean Association, and Illinois Soybean Checkoff Board to further pursue soy foods research and outreach efforts. The total support from the government and soybean industry sources has exceeded $1,000,000 worth of grants and soybean processing equipment. For more information on ICSF, visit the center’s website at www.soyfoodsillinois.uiuc.edu.

Websites to Watch

C-FAR  
www.icfar.org

NAT TOOLS FOR GOOD HEALTH  
www.nat.uiuc.edu

Offers tools for analyzing diet and food choices.

FARM.DOC  
www.farmedoc.uiuc.edu

Provides farmers with decision-making information and analysis tools.

ILLINOIS TRAILL  
ill-trail.outreach.uiuc.edu

Organizes livestock research, information, and expert services.

ALTERNATIVE CROPS FOR ILLINOIS  
www.sws.uiuc.edu/data/altcrops

Helps farmers identify and find information on potential alternative crops.

INTERACTIVE AGRONOMY HANDBOOK  
www.ipm.uiuc.edu/iah

Provides scouting reports, management advice, and decision-aids tools.

PEST MANAGEMENT & CROP DEVELOPMENT BULLETIN  
www.ipm.uiuc.edu/bulletin/index.php

Provides scouting reports, management advice, and decision-aids tools.

ILLINOIS IPM ONLINE  
www.ipm.uiuc.edu

An environment for learning about integrated pest management.

ILLINOIS WATERSHED MANAGEMENT CLEARINGHOUSE  
www.watershed.uiuc.edu

Helps groups create and implement a plan to address local watershed issues.

ILLINOIS WORLD FOOD AND SUSTAINABLE AGRICULTURE PROGRAM  
web.aces.uiuc.edu/wf

Covers world food issues and related agriculture and natural resource implications.

C-FAR Connection  Spring 2004
July 14  Board of Directors Meeting
August 24  Semi-Annual Meeting
            (Northfield Inn, Suites & Conference Center, Springfield)
September 8  Board of Directors Meeting
November 10  Board of Directors Meeting

Please call the C-FAR office or check the calendar on the
C-FAR website at www.ilcfar.org for further details.