



# Policy Perspective on Ag Research

## Policy and Funding Jumpstart Biofuels Research

The biofuels plan of the Democratic Rural Working Group pushes hard on biofuels research and use. The plan increases use by raising the renewable fuels standard, with specific carve outs for biodiesel and cellulosic sources. It also provides incentives to automakers to increase their percentage of flex-fuel vehicles and increases the number of gas stations selling E85.

However, the plan also provides added federal investment in basic biofuels research to make ethanol production more efficient, develop new feedstock processes, and foster new vehicle efficient technologies.

The National Corn Growers Association (NCGA) applauded the plan, which also

called for an extension of the key components of the 2005 Energy Bill: "Corn growers are happy to see Congress continue its efforts to put our nation's energy security as a priority," said Bruce Noel, chairman of NCGA's Ethanol Committee. "The House Democrats Rural Working Group plan is an ambitious one that would continue to grow our domestic ethanol industry."

Following the recent State of the Union address, in which President Bush called for 35 billion gallons of ethanol production by 2017, USDA called for proposals from researchers and announced \$1.6 billion in grants would be available to fund research, primarily in cellulosic ethanol production.

## National Corn to Ethanol Research Center Already Has an Advantage in Meeting U.S. Research Needs

Getting a head start is preferable to starting from square one, and currently the advantage rests with the National Corn to Ethanol Research Center (NCERC) at Edwardsville, IL. With only a slight addition to the front end of its research processes, known as a "clip," it can efficiently test methods for producing cellulosic ethanol, as well as continuing with its corn-based ethanol research. NCERC researchers will be able to break down the fiber in corn kernels, which is comparable to refining cornstalks, wood chips, or

heavy grasses. The "clip" will also accommodate biomass feedstocks for ethanol.

Illinois corn growers say there is little need to create new expensive research facilities and programs to refine biomass into ethanol, when a currently functioning facility can be easily modified for that objective.

Other researchers can address the issues of harvesting, handling, and transporting biomass products, while NCERC perfects the biomass refining process.

*See NCERC, p 2*

## Innovative Funding Planned for U.S. Ag Research

Debate on the 2007 Farm Bill will include a potential new structure for implementing U.S. ag research funding. In the past 35 years while GDP has grown 293%, population by 100 million, and funding for the National Institutes of Health by 882%, USDA funding for food, ag, and natural resources research has grown less than 2%.

A political debate has also erupted over whether research funds should be allocated by a formula or competitively. A public university association has developed a mechanism to be established in the USDA to resolve the conflict. The CREATE-21 plan develops a National Agricultural Institute that coordinates ag research funding from many agencies and ensures broad access to funds by all researchers.

Congress will be asked to consider a plan that will boost ag research funding and approve a proposal for the way funds are allotted among research institutions. Whether the outcome favors a dollar-based formula per university or competitively sought grants, the whole focus will be on increasing funding for food and agriculture research. But rural and urban interests alike can agree that energy and fuel research must be funded also.

## IL Corn Farmers Lead Nation in Conservation Tillage

No-till soil conservation practices surpassed conventional tillage for the first time in Illinois. The Soil Erosion and Crop Tillage Transect Survey, conducted by Illinois Soil and Water Conservation Districts and the USDA Natural Resources Conservation Service, shows 33% of all 2006 crops were planted in no-

till, while conventional tillage was used on 31% of cropland. Corn weighed in at 17% no-till (22% reduced till), up two percentage points.

Biotech crop research has allowed growers to reduce soil tillage which, according to a 2002 report from the Conservation Technology Information Center at Purdue

University, has a number of benefits: 1) Less plowing saved 306 million gallons of fuel. 2) Low tillage crops reduced soil erosion by 1 billion tons, a 30 percent reduction since 1980. 3) Reduction of water treatment costs. Reduced tillage practices saved \$3.5 billion in water treatment costs in 2002 alone.

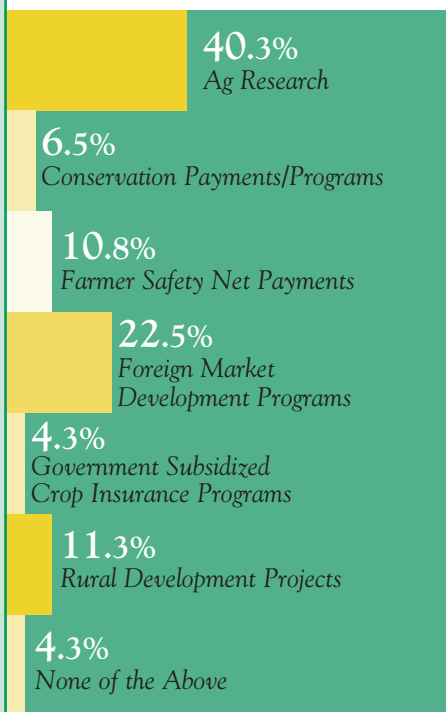
## Increase Needed in Ag Research Funding

Federal funding for agriculture research has been level for many years, and inflation has resulted in the loss of researchers and project funding as the agriculture research appropriation diminishes.

**Ag research will be the biggest benefit to farming next year for 22% of farmers and the biggest long term benefit for 40% of farmers.**

That is a great concern to respondents of an Illinois Corn Growers Association fall 2006 survey, 22% of whom said agriculture research will have the biggest benefit to their farming operation next year, and more than 40% of whom (see graph) said it would have the biggest benefit for their operations in the long term. And 34% said agriculture research, compared to five other farm programs, would give taxpayers the "biggest bang for their buck," well above rural development (21%) and conservation programs (17%).

**Q: What will have the biggest benefit to your farming operation in the long term?**



## DDGS: Livestock Feed of the Future

Ethanol refineries produce 17 pounds of distillers dried grains (DDGS) from each bushel of corn. This high protein, high fat, environmentally friendly product is competitively priced and is being created daily throughout the Midwest as a valuable livestock feed.

Distillers' grains can be fed to beef and dairy cattle by displacing corn with a high energy nutrient that is growing in abundance.

Swine, lambs, and poultry can also be fed DDGS, to a lesser degree because of their reduced ability to digest the high fiber content in DDGS.

Funding is needed for research that will be able to break down the fiber into cellulosic ethanol, creating more of that product and enhancing the feed value of DDGS for swine and poultry.

As an abundant co-product of ethanol refineries, DDGS has become a competitively priced, additional feedstock to supply the needs of the livestock industry.

## NCGA's NFSA

Complete details about the National Farm Security Act can be found on the Internet at: [www.ncga.com/news/notd/pdfs/10\\_23\\_06NFSA.pdf](http://www.ncga.com/news/notd/pdfs/10_23_06NFSA.pdf).

## NCERC (from p 1)

That allows on-line ethanol plants to modify their facilities to be able to accept biomass and convert it to ethanol as they are currently doing with corn starch.

In the meantime, biomass such as corn stover is a viable source of energy for ethanol plants using fluidized bed boilers, which is another environmental "plus" for ethanol. Essentially, biomass can be put to work immediately providing "clean" BTU energy while research is completed on the conversion of the biomass fiber to ethanol.

In the past two years, researchers have developed at least three different technologies for converting cellulose to ethanol, regardless of whether the cellulose is derived from the fiber in the corn kernel or from the corn stalk.

With the research experience underway at the NCERC, an investment of \$8 to \$10 million will provide the Center with sufficient capital to construct the needed process lines for refining the technology and providing it to the ethanol industry. The NCERC's state of the art capacity to test and refine experimental technology give it the advantage over other research facilities needing to be built from the ground up.



## White Paper Offered

To obtain a copy of the White Paper which details all of the survey responses from the ten Listening Sessions, contact the Illinois Corn Growers Association at 309-557-3257, or send your e-mail request to: [mlambert@ilcorn.org](mailto:mlambert@ilcorn.org). The document is also available at: [www.ilcorn.org](http://www.ilcorn.org).

