

## MINUTES OF THE HOUSE AGRICULTURE AND NATURAL RESOURCES COMMITTEE

The meeting was called to order by Chairman John Faber at 3:30 P.M. on January 15, 2008, in Room 783 of the DSOB.

All members were present except:

Representative Vaughn Flora

Committee staff present:

Raney Gilliland, Kansas Legislative Research Department  
Emalene Correll, Kansas Legislative Research Department  
Ryan Hoffman, Kansas Legislative Research Department  
Gordon Self, Revisor of Statutes  
Kristen Kellems, Revisor of Statutes  
Florence Deeter, Committee Assistant

Conferees appearing before the committee:

Adrian Polansky, Secretary, Kansas Department of Agriculture

Others attending:

See attached list.

The Chairman introduced two staff members, Kristen Kellems and Ryan Hoffman and welcomed Adrian Polansky, Secretary, Kansas Department of Agriculture (KDA), who introduced his wife Chris and attending staff members from the Department.

Mr. Polansky referenced the Department's official Annual Report and then reported on the State of Kansas Agriculture, "The Future is in our Fields" ([Attachment 1](#)). He said that in spite of sagging production of wheat and natural disasters, strong commodity prices supported the Kansas economy during the past year; he noted that the KDA is the coordinating agency to address animal and plant diseases, food safety, agricultural production, and public water supplies during any disaster, adding that the agency has created bridges to streamline communication among agencies and with the federal government.

Commenting on the bioeconomy, Mr. Polansky said that Kansas is a founding member of the North Central Bioeconomy Consortium, an alliance of 12 midwestern states dedicated to developing a regional bioeconomy to augment the resources of the region. (The 12 states have 50% of the nation's biomass supply.) He commented on the NC 506 Project to sustain corn ethanol production as well as other strategies to achieve energy security, such as biodiesel and E85 production. He noted that bioproducts produce jobs, especially in rural areas, citing the 640 permanent jobs created by ethanol plants in Kansas with an average annual salary of \$49,000 and such businesses as Ventria Bioscience in Junction City, which employs 15-20 individuals to process pharmaceutical rice. He stated that cellulose-source ethanol is on the horizon and that in the near future Kansas could produce over 800 bioproducts.

Mr. Polansky addressed several water issues. He compared water used to refine one barrel of crude oil (1851 gallons) with usage to create one gallon of ethanol (3-4 gallons). He stated that corn yield advances will continue so that, by 2030, a yield of 300 bushels per acre will be normal, resulting in significant savings in water usage, as will drought-tolerant crops. He encouraged continued research and development of biotechnology to attract "green-collar jobs," investment, and educational opportunities. He commented on the Republican River Compact, stating that Nebraska continues overuse of Republican River water resources. Noting that the Kansas Water Appropriation Act is the basis for managing water resources, he said that the IGUCAs (Intensive Groundwater Usage Control Area) provide an additional tool to manage water in areas with declining resources.

Regarding food safety, Mr. Polansky said that in 2004 certain food inspection functions were transferred to the KDA, a responsibility that has resulted in more thorough and efficient inspections. He noted a pilot program is in place, beginning on January 22, to test high-risk foods for pathogens.

Committee members posed several questions to which Mr. Polansky responded:

## CONTINUATION SHEET

MINUTES OF THE House Agriculture and Natural Resources Committee at 3:30 P.M. on January 15, 2008, in Room 783 of the DSOB.

- Black and Beach Corporation, located in Kansas, is conducting research on the bacterial element in ethanol and developing a justification process for the consumption of water and carbon dioxide in ethanol.
- Self-sustained renewable energy could be free of government and state subsidy programs as investments in the future market is given enough time to make adjustments.
- The sale of corn earns ten cents more per bushel if delivery can be made within fifty miles of the ethanol production area.
- There are five bio fuel facilities under construction at the present time. The change in ethanol prices has contributed to more than that number going by the wayside.
- The production of pharmaceutical rice in Kansas was delayed by governmental indecision, weather conditions relating to the exact time for planting, and the higher cost of processing equipment.
- Kansas State University conducted a pilot project of planting rice and with the correct oversight, it is quite possible to grow in Kansas.
- Ventria has hired an agronomist to oversee the field production; an expansion of the product is expected over the next few years.
- Germination loss of seed among seed producers has impacted both farmers in southeast Kansas and the purchasers of seed like Monsanto.
- The potential wheat disease in southwest Kansas needs to be evaluated annually to keep it from becoming a major issue.

After brief announcements by the Chairman, the meeting was adjourned at 5:00 p.m. The next meeting is scheduled for Wednesday, January 16, at 3:30 p.m.

# HOUSE AGRICULTURE COMMITTEE GUEST LIST

DATE: January 15, 2008

NAME	REPRESENTING
Eric Wisner	KDA
SEAN MILLER	CAPITOL STRATEGIES
Becky Kalbe	DOB
Sarah Larison	KDOC
Dana Peterson	ICAWG
John A. Donley	Kans. Lusk. Ass'n
CU CASORADU	KDA
Dave Starkey	KDA
Dale Lumbly	KDA
STACEY WASHINGTON	KDA
Carole Jordan	KDA
Ida Kirmse	KDA
Austin Hayden	Hein Law Firm
Mary Jane Stankiewicz	KGFA
BEAN HARRISON	KFB
Sison Darland	Pinegar, Smith & Assoc.

**The future**



**is in our fields**



**KANSAS**  
DEPARTMENT OF  
AGRICULTURE

# **The State of Kansas Agriculture**

**Secretary of Agriculture  
Adrian Polansky**

**January 15, 2008**



## Oh, What a Year

Like every year, it was a unique one for agriculture and rural Kansas. We had dismaying disasters and spectacular successes. Wheat production was down, sorghum production was up, and strong prices for commodities are keeping the Kansas economy from faltering in increasingly tough times for much of the nation.



## Recovery From Disasters

KDA is the coordinating agency to address animal and plant diseases, food safety, agricultural production and public water supplies in a disaster. In the aftermath of ice, snow, flood or drought, we work to make sure the needs of agriculture and rural businesses are not forgotten.



## Coordinating Efforts

We have founded a homeland security and agriculture group to break down the silos between agencies, both state and federal, to work toward delivery of a streamlined, effective response whenever disasters strike. We have learned about gaps that exist, and we are working to build bridges across them.



## Today's Focus

- The Bioeconomy
- Important Water Issues--The Intensive Groundwater Use Control Area, Republican River Compact
- Food Safety in Kansas



## Allocating Resources to Benefit Kansas

Sensible use of our natural resources and our own innovation will help us build a bioeconomy with real jobs for real Kansans and the entire Midwest. It's our chance to shine.



## For My Own Part...

My belief in a bioeconomy is deeply personal. I chair the NASDA biotechnology task force and serve on USDA's Advisory Committee on Biotechnology and 21st Century Agriculture. In 2007 I represented USDA and Kansas at the APEC High-Level Policy Dialogue on Agricultural Biotechnology in Canberra, Australia. I was also honored to receive the BIO State Executive of the Year Award.



## The Midwest Wins

Kansas is a founding member of the North Central Bioeconomy Consortium, an alliance of 12 Midwestern states dedicated to developing a regional bioeconomy.



## Bioenergy, Biofuels and Bioproducts

NCBC is a public sector partnership bringing together experts from experiment stations, extension and departments of agriculture from states across the heartland.



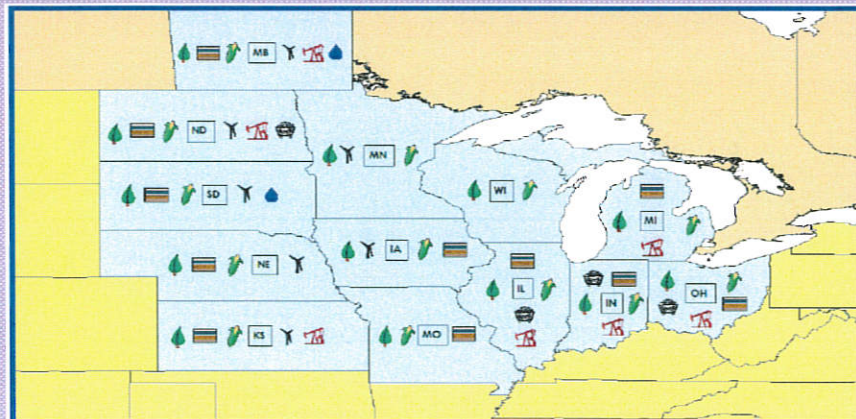


## Resources Abound

The Midwest is home to the greatest biomass resources in the U.S. The 12 states have 50 percent of the nation's biomass supply, including 74 percent of the crop residues and 77 percent of the switchgrass from land enrolled in the Conservation Reserve Program.



## Our Energy Resources





## NC 506 Project

NC 506, funded in part by the consortium, involves a group of researchers from Midwestern land grant institutions working to address diverse issues of sustainability in corn ethanol production systems. Completion is slated for 2008.



## NC 506

The project will answer a number of questions on energy policy, costs, subsidies, rural development and coproducts, including:

- The net energy yield and greenhouse gas mitigation potential of corn ethanol systems based on actual data obtained from recently built plants and using updated data on crop yields, inputs and use of coproducts.



## MGA Agreement

Governor Kathleen Sebelius recently signed the Energy Security and Climate Stewardship Platform and Greenhouse Gas Accord. In another cooperative effort with other Midwestern leaders, the agreement calls for a regional strategy to achieve energy security and reduce greenhouse gas emissions.



## Renewable Production Grows Rural Areas

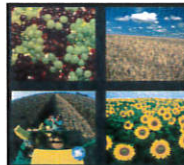
A typical, modern ethanol plant may produce 100 million gallons a year. It may employ 50 people and have a payroll nearing \$4 million. 11 ethanol plants operating in Kansas have a capacity of some 439 million gallons per year.





## Production Today

- Other plants in addition to the 11 producing today are under consideration. Kansas may be producing 480 to 800 million gallons by mid-2008.
- Biodiesel production is small, but about 100 million gallons of biodiesel production are anticipated soon.



## Markets, Jobs, Dollars

The promise of the bioeconomy is in part realized through the creation of green collar jobs — jobs involved with the production of bioproducts and biofuels — for Kansans, especially those in rural areas.



## Consumer Benefits, Too

- For every barrel of ethanol produced, 1.2 barrels of petroleum are displaced at the refinery.
- *“The American Petroleum Institute estimated that the presence of ethanol causes gasoline prices to be 0.27 % lower than would occur without ethanol. The total cost savings to the consumer is approximately \$270 million per year.”*

» U.S. Department of Energy, numbers from 2006



## Consumer Choice

There are 28 E85 fueling stations in the state. Flexible fuel vehicle owners could get more choices under a pilot project that we have recently launched. It will allow stations to install pumps that dispense other fuel blends, like 20 or 30 percent ethanol, to allow FFV owners to decide for themselves which blend is best based on price and performance. The first blender pump is slated to open in about a month in Colwich. Other locations under consideration are in Phillipsburg and Lawrence.



## Bioproducts Create Jobs

- Some 640 permanent jobs already have been created in the ethanol plants of Kansas.
- ICM of Colwich builds and supports ethanol plants around the world. It employs 750. Poet Ethanol Products, Wichita, employs 50.
- EdenSpace, a biotechnology company in Junction City, will soon employ 30 to 40, mostly scientists.
- Ventria Bioscience operates a plant in Junction City to process its pharmaceutical rice. Employment is 15 to 20. Local farmers receive a premium for growing the crop.



## Ethanol-Ready Corn

Edenspace is developing a trademarked EnergyCorn variety that can reduce cellulosic ethanol processing costs by \$1.20 a gallon by incorporating enzyme traits in the plants.



## Renewable Energy — Truly Value-Added

- A study in Nebraska found that a 100 million gallon ethanol plant results in:
  - \$150 million in capital construction investment.
  - \$70 million to the economy during construction.
  - Expansion of the local economic base by \$233 million each year.
  - 45 direct jobs plus 101 indirect jobs in the area.
  - Grain prices raised by some \$.10 a bushel.
  - Tax revenues of \$3.2 million per year.



## Not Just Jobs — Good Jobs

- That study also noted that ethanol plant jobs were at an annual salary of \$49,000, well above the average of \$34,000.
- Kansas is currently conducting its own survey of the economic benefits of the ethanol industry.



## Ethanol Creates Balance

Currently, we import almost \$1 billion worth of crude oil a day. By producing ethanol, we reduce the trade deficit and keep dollars at home. We also create co-products, some for export, some used nearby. They include distillers' grains for feed, corn gluten, other animal feed supplements and corn oil. Biodiesel also creates both fuel and coproducts.



## More Homemade Products — More Homegrown Jobs

Commercial-scale production of ethanol from cellulosic sources is on the horizon. It will create a whole new set of bioproducts and green collar jobs. Today's petroleum products will be tomorrow's bioproducts. They include:

Solvents  
Acetic Acid  
Water-Soluble Polymers

Oleochemicals  
Oil Seed Lubricants/Surfactants  
Lactic Acid and Propanediol





## Water Adds Value to Human Endeavors

Water is required for nearly every human venture, whether it's raising kids or crops, food, fuel and fiber, or making tires or watering lawns. We make choices about where to allocate water and other natural resources. New energy crops and genetic modifications to corn and other crops will give us more choices about resources.



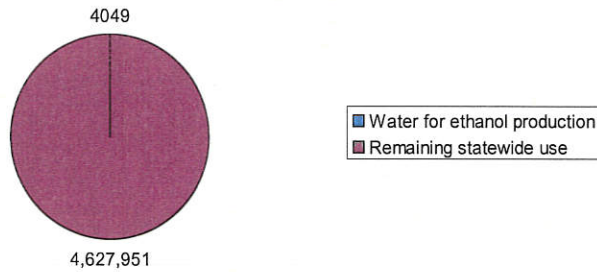
## Water Uses Compared

- A 100 million gallon ethanol plant uses about 1,200 acre feet of water a year. That's enough to irrigate about 800 acres of corn in western Kansas.
- One gallon of ethanol is produced using 3 to 4 gallons of water.
- 1,851 gallons of water are used to refine one barrel of crude oil.
- 1,500 gallons go into one barrel of beer.



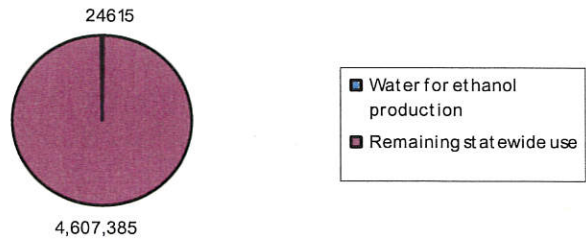
## How does ethanol compare in Kansas?

Water Used to Produce Ethanol  
November 2007  
Compared to Statewide Water Use



## What if we dramatically increase production?

Water Use for Ethanol  
If Production Increased by Six  
Compared to Statewide Water Use





## More Water Use Comparisons

- With current technology, a 100 million gallon ethanol plant might use about 400 million gallons of water (or 1,223 acre-feet) a year.
- That is comparable to 30,000 dairy cows; six average feedlots; or a town of about 8,000 people.



## Fuel and Protein Produced

One bushel of corn produces 2.8 gallons of ethanol and 18 pounds of distillers' grains, or 13.5 pounds gluten feed, 2.6 pounds gluten meal and 1.5 pounds corn oil. Corn yields are increasing rapidly.



## Changes in Process

New technology, drought resistance and genetic modification promise to continue to increase grain production and cellulosic sources for renewable fuel production. Ethanol plant technology also is improving to conserve water. And, historically in Kansas, half our ethanol has been made from sorghum, often a dryland crop.



## Imagine the Possibilities

Corn yield advances are a reality, as are 300 bushels per acre yields. Triple Cross varieties are widely seen to add 20 bushels per acre. Many believe 300 bushels per acre will be the average U.S. corn yield in 2030. Achieving this with unchanged inputs means the energy balance of ethanol improves and its greenhouse gases decrease.

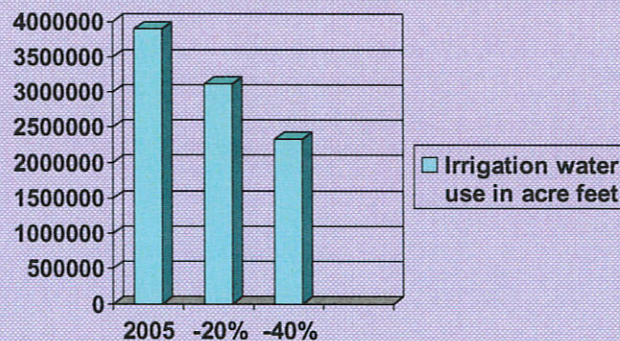


## For the Future...

State and local government must maintain strong oversight over siting of renewable fuel plants and other industries, including water supply and availability. Policies about the use of water must be seriously examined as new crop varieties bring water savings and climate changes affect growing conditions.



## Possible Irrigation Water Use With Drought-Tolerant Crops



2005 irrigation use was 3,896,000 acre-feet. Drought-tolerant crops could reduce water needs by 20 percent (3,116,800 AF); or as much as 40 percent, reducing irrigation to 2,337,600 AF. One acre foot covers one acre of land with one foot of water.



## Economic Development for Kansas

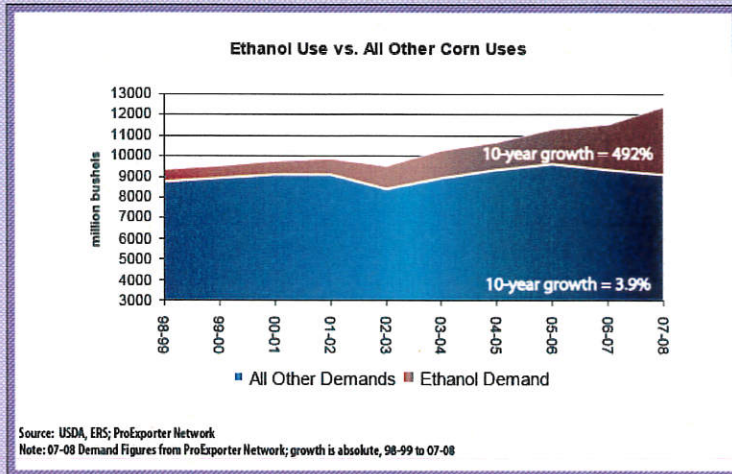
Kansas must encourage research and development of bioproducts. We can be innovators in renewable energy, animal health and plant sciences, attracting investment, green collar jobs and educational opportunities. The future can be in our fields, our universities and our rural communities.



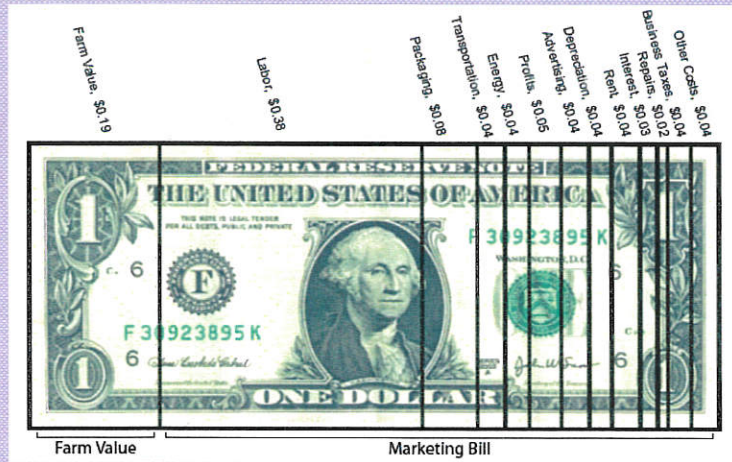
## Imagine a Green Collar Revolution

- It's a fact that the world's demand for energy continues to increase.
- Many of the resources we rely on today are running out and cannot be renewed.
- We must use every source we can, including conservation, to provide energy.
- The bioeconomy can benefit Kansans and the world.

# Supply to Meet Demand



# Food vs. Fuel Myth





## A Green Collar Revolution

“Genetically engineered crops are playing an increasingly important role in world agriculture, enabling scientists to reach across genera for useful genes to enhance tolerance to drought, heat, cold, and water logging, all likely consequences of global warming. I believe biotechnology will be essential to meeting future food, feed, fiber, and biofuel demand.”

*“Feeding a Hungry World”  
by Norman Borlaug  
father of the Green Revolution*



## Current Water Issues

Former Chief Engineer David Pope served the state of Kansas well in that position for 24 years. We wish him well with his new undertakings, but are confident in the abilities of our recently named new Chief Engineer David Barfield.





## Leading the Nebraska Effort

David is leading the effort to ensure Kansans get the water to which they are entitled from Nebraska. One of his first acts as chief engineer was to put that state on notice that they must do whatever is necessary to remedy their longtime overuse of water.



## Intensive Groundwater Use Control Areas

Many of you will remember last year's discussion of a tool the chief engineer can use to benefit the quantity or quality of Kansas water. That tool is the IGUCA. The subject also was discussed at the energy interim committee this summer. We have been working intensively with stakeholders to learn if there are ways we can improve the IGUCA process.



## Why IGUCAs?

The Kansas Water Appropriation Act is the foundation for water resource management in Kansas.

- It directs the chief engineer to manage the state's water resources for the benefit of all Kansans.
- It provides needed structure for allocating water for beneficial use by prioritizing water rights by date.



## IGUCAs

- The IGUCA statute is an additional tool the chief engineer can use to better manage water in overappropriated areas with declining resources.
- Any prescribed corrective control provisions honor the priority date system to the extent practical while preserving the economic viability of an affected region.



## Safe Food, Farm to Fork

In 2004, legislation and ERO 32 transferred certain food safety inspection functions to the department of agriculture from KDHE.

We take great pride in what we have accomplished since that transfer became reality. That includes:



## Efficiencies Help Regulated Community

- Utilized money we saved to hire more people to inspect more facilities more efficiently and thus ensure safe food.
- Decreased the number of different employees from different programs or departments who visit a food processing establishment.
- Entered the age of technology with electronic tablets and inspection software.



## Pilot Program

You are all aware of the high number of food recalls and the number of problems encountered with imported and domestically produced foods.

I find it unacceptable for people or pets to be harmed by tainted foods.



## Testing Products Before Illness Strikes

I have directed our food safety staff to begin a pilot program to sample high-risk foods for sale at retail facilities across the state beginning Jan. 22. This program involves anonymous purchases that are then sent to our lab where they will be tested for pathogens such as listeria, salmonella and E. coli. This is another step in ensuring the safety of food products.



## In Conclusion

It is my pleasure to serve as secretary of agriculture in this great agricultural state. I believe many opportunities lay before us as we develop a green economy and the green collar jobs that go with it.

Thank you.