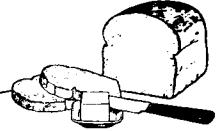


# Ethanol Producers And Consumers



**EPAC**



*This newsletter is sent to members, contributors and sponsors of EPAC.*

Ethanol Producers And Consumers (EPAC) is a non profit organization with members throughout the nation who support the production and use of Ethanol as a clean, renewable energy resource. **Volume 19, Number 4: EPAC January/February 2010**  
Phone: 406-785-3722 • Fax: 406-785-2252 • E-mail: [epac@ethanolmt.org](mailto:epac@ethanolmt.org) • Web Site: [www.ethanolmt.org](http://www.ethanolmt.org)

**WELCOME 2010**

**THE 10TH YEAR OF THE 21ST CENTURY  
TWENTY-TEN OR TWO THOUSAND TEN**

**"THE INTERNATIONAL YEAR OF BIODIVERSITY"**

**IT'S EPAC'S 20TH ANNIVERSARY!!**

## **OILSEED AND BIODIESEL PRODUCTION WORKSHOP**



*Attendees of the December 8th Oilseeds & Biodiesel Production Workshop at Dawson Community College, Glendive MT. The workshop was attended by more than 150 hosted by the Montana Department of Environmental Quality and Dawson Community College.*

## **Final WIRED MAP Academy**



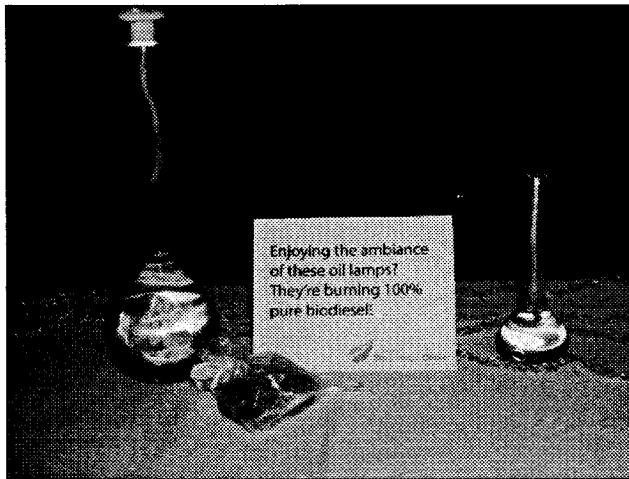
*EPAC attended the December 17-18th Final WIRED Academy meeting at the BioEnergy Center on the Montana State University Northern campus in Havre, MT*

In January 2006 the US Department of Labor announced that the application from Governor Schweitzer for Montana's WIRED (Workforce Innovation in Regional Development) proposal was one of 13 approved out of over 90 applications nationwide. Montana's WIRED proposal focused on the development of the bio-product industry in 32 counties of Eastern Montana. EPAC was a recipient of a WIRED grant in 2007 for more than \$80,000 for educational and training workshops to promote the production and use of biofuels.

Pam Ost, EPAC Executive Director and Patsy Reimche, EPAC Office Manager attended the Final WIRED MAP Academy held

*continued on page 2*

EPAC attended and displayed at the Oilseed and Biodiesel Production Workshop, Tuesday, December 8th at the Toepke Center, Dawson Community College in Glendive MT. Howard Haines, Montana Department of Environmental Quality Renewable Energy Section Program Manager and Bruce Bainbridge, Dawson Community College WIRED Director hosted more than 100 attendees. The day long workshop featured speakers from the Eastern Ag Experiment Station; NDSU USDA ARS Williston North Dakota, MSU Extension, the National Biodiesel Education Program, University of Idaho, The BioEnergy Center, MSU-Northern; John Deere Development and Support, Logan Fisher Biofuels and Big Sky Biodiesel. Presentations included the introduction to Montana Biodiesel and Oilseeds, Feedstock options, Use, Consumption; Small scale crushing operations; Basics of production and technical advancements; Fuel quality testing and Use of biodiesel in bus, light duty and farm equipment. This workshop was one in a series made possible by funds allocated through the Montana WIRED Program.



Ambiance was provided by 100 percent biodiesel lighting at the Final WIRED Academy meeting at the BioEnergy Center on the Montana State University Northern campus in Havre MT

December 17-18th at the BioEnergy Center on the Montana State University Northern campus in Havre Montana. EPAC was invited to attend and speak at this final event as part of a panel of grant recipients under the Department of Commerce.

Pam and Patsy gave an overview of the use of the grant monies received by EPAC.

EPAC conducted 13 workshops within the WIRED region March 2007 through March 2009. EPAC worked closely with partners throughout the state of Montana such as: Montana Department of Environmental Quality, MSU Northern, Dawson Community College, Miles Community College, Montana Department of Agriculture, Montana Department of Commerce, Montana Farmers Union, Eastern Plains RC&D, Great Northern Development Corporation, Montana Workforce Service Centers and more. These collaborations helped to maximize the biofuel message that EPAC disseminated at the workshops.

EPAC also enlisted industry leaders nationwide as collaborators to the workshops during the two year grant period. Participants saw presentations from Kevin Hicks, Research Leader, Crop Conversion Science & Engineering Research, Eastern Regional Research Center, Ag Research Service, USDA, Pennsylvania; Larry Johnson, Lead Consultant, LLJ Consulting and Business Development, Minnesota; Dave Hallberg, CEO Prime BIOSolutions, Nebraska; Mick Miller, Plant Manager, Red Trail Energy, North Dakota; Mark Luitjens, Business Development Manager, Aventine Renewable Energy, South Dakota; and more.

Grant funds were used to develop two nationally distributed booklets: Biofuels: Questions and Answers and Food and Fuel: Eat the Best and Drive the Rest: Distiller Grains Recipes as well as providing for the distribution of biofuel industry publications to all high school and college libraries in the WIRED region.

Publicity about the EPAC workshops and biofuel events reached across the state of Montana in print, radio and television advertising and news coverage. The Ethanol Bus Tour workshop into eastern Montana and western North Dakota and the Biodiesel workshop held at the newly opened BioEnergy Innovation and Testing Center at MSU Northern, Havre, were covered in the national biofuel industry publication Ethanol Producer Magazine and BIOMASS magazine.

Shirley Ball, EPAC Chairman of the Board and Pam Ost, EPAC Executive Director received a letter of recognition from Governor Brian Schweitzer for the work done by EPAC for WIRED-Montana's Agro-Energy Plan at the Academy's Thursday evening reception. Governor Schweitzer stated in the letter "Through the collaborative efforts of Montana's Departments of Labor and In-

dustry, Agriculture, Commerce, the office of the Commissioner of Higher Education, Environmental Quality and the Governor's Office of Economic Development we have built and implemented an innovative 21st Century workforce model."



## E85 MAKES INROADS ON COST AND AVAILABILITY

Source: AutoWeek, Dec. 23, 2009

Three years ago, we embarked on a Midwest road trip in search of what was then the Holy Grail of fuel: E85. Our findings weren't too positive — there were far more E85-compatible vehicles on the road in 2006 (5 million) than there were E85 pumps to fuel them (about 700 out of some 200,000 fuel stations nationwide). In addition, those burning the mix of 15 percent gasoline and 85 percent ethanol were paying a pretty penny for their earth-friendly ways, losing about 15 percent in fuel economy while often paying the same price as regular unleaded.

**The bottom line: E85 is starting to make sense — and cents — for drivers who want to burn it.**

Experts assured us it was only a matter of time before E85 became more available, and at more reasonable prices. So here we are, in 2009, wondering whether those predictions have come true.

**The answer? Yes, sort of.**

While the number of E85 outlets nationwide has grown to 2,085, the Midwest remains home to more than half of those pumps. Minnesota alone has 361 of the E85 pumps, outstripping the total number of E85 pumps on the entire West Coast (62) and the East Coast (248) combined.

The test vehicle for our latest E85 drive was a 2010 Ford Expedition EL, one of about 50 E85-compatible 2010 models now sold in the United States. More are on the way. Ford, for instance, will dramatically expand its number of ethanol burners when it launches E85-compatible EcoBoost turbocharged engines in 2011.

After establishing the 5.4-liter V8-powered Expedition's fuel mileage on a tank of regular unleaded (14.7 mpg), we pumped our first tankful of E85, priced at \$2.29 per gallon (vs. \$2.69 for unleaded) at a freeway-friendly station in Janesville, Wis. In the first few miles after filling up, it was interesting to watch the vehicle's onboard trip computer recalculate our estimated "distance to empty" drastically downward from 512 miles to 402 miles (or about 12.2 mpg) after about 10 miles of E85-fueled driving. Our second tank of E85, in Minneapolis, was just \$2.19 per gallon (vs. \$2.69 for unleaded).

Overall, E85 use cut our fuel economy to 12.3 mpg — a reduction of 16.3 percent versus unleaded (though with no noticeable effect on vehicle power or performance). But thanks to significant E85 cost savings, our loss of fuel economy was offset by a commensurate 16.7 percent reduction in fuel cost.

**The bottom line: E85 is starting to make sense — and cents — for drivers who want to burn it.**

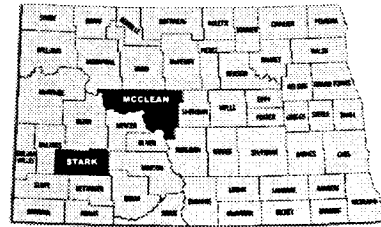
## Ethanol Plant Thriving

Dec 21 2009 7:17PM - KXMCTV Minot

North Dakota farmers produced about 280 million bushels of Corn last year.

More than 40% of that total is converted into ethanol for fuel at five ethanol plants in the state. Two of those plants are in western North Dakota - Red Trail in Richardton and Blue Flint near Underwood.

Sitting in the heart of McLean County, the Blue Flint Ethanol plant is hardly in the heart of corn country. But its proximity to coal Creek Station allows it to draw waste steam from the power plant to operate the ethanol plant. "We're the only plant that directly utilizes a steam from a power plant. We're the only one to operate that way."



Blue Flint Manager Jeff Zuger says the economy of this location more than makes up for the cost of shipping in corn to turn into ethanol. "Our goal has been and is to be the lowest production cost facility in the US and we've got a lot of information that tells us we're certainly running in that area."

Zuger has been in charge of the Blue Flint plant since its design back in 2005. And while he says he knew little about the ethanol industry then, he's learned a lot. You can see **he's a supporter by the license plate in his office. But he says the current profitable cycle for ethanol has come only after surviving a glut of ethanol production that collapsed prices.** "We've really passed through that era and we're in a time period where we're in a healthy state. Supply and demand are in balance."

The plant brings about two-thirds of its corn from south-east North Dakota. But he says the other one-third from local sources - like this truck - is actually growing, thanks to the interest in growing corn that ethanol has sparked. "When we first started the plant there was not a lot of corn production in this area, there was not a lot of irrigation in this area or dry-land corn."

Zuger says using a food - corn - to make fuel has actually helped the food-corn industry. He says it has pushed prices higher for producers and spurred new research into better varieties, expanded irrigation to create new acreages for corn, and helped add value to North Dakota-grown corn. "The corn traditionally in ND was exported to the Pacific northwest. This provides an opportunity for the corn to be used in state."

He says congressional mandates for more renewable fuels mean that much more ethanol will be used in the coming years- but he says most of the growth will come from new sources like cellulosic and biomass that don't consume food. All in all, Zuger says it's an honor to be a part of an industry that offers many positives. "Be part of an industry that's creating a renewable energy, that helps increase our economic progress as a country and locally, as well as the environmental positive impacts we have."

## Ethanol Groups Challenge Constitutionality of California LCFS

Press release posted Dec. 28, 2009, at 11:03 a.m. CST

Relating to the complaint they filed in Federal District Court in Fresno, California, concerning the California Low Carbon Fuel Standard (LCFS), the Renewable Fuels Association and Growth Energy issued the following joint statement:

"If the United States is going to have a low carbon fuel standard, it must be based on sound science and it must be consistent with the U.S. Constitution. California's Low Carbon Fuel Standard (LCFS) is fundamentally flawed in both respects. Today, in federal court, we filed a lawsuit challenging the constitutionality of the LCFS. As structured, it violates both the Supremacy Clause and the Commerce Clause of the U.S. Constitution.

"The LCFS contradicts the sound judgment of Congress when it passed the 2007 Energy Independence Security Act and singled out the importance of domestic ethanol for our nation's environment, energy security, and economy. The LCFS erects new regulatory obstacles to ethanol, frustrates the federal Renewable Fuel Standard, and threatens the nationwide market for domestic ethanol. Because congressional policy cannot coexist with California's regulation, the latter must give way to the former, the supreme law of the land.

"Additionally, by closing California's borders to corn ethanol from other states, the LCFS will change how corn is farmed and ethanol is produced all over the country. The Commerce Clause specifically forbids state laws that discriminate against out-of-state goods and that regulate out-of-state conduct. The LCFS imposes excessive burdens on the entire domestic ethanol industry while providing no benefit to Californians. In fact, in disadvantaging **low-carbon, domestic ethanol, the LCFS denies the people of California a genuine opportunity to clean their air, create jobs, and strengthen their economic and national security.** One state cannot dictate policy for all the others, yet that is precisely what California has aimed to do through a poorly conceived and, frankly, unconstitutional LCFS."



Nebraska Ethanol Board

### NEBRASKA PRODUCES RECORD AMOUNT OF ETHANOL

Over 127 million gallons of ethanol was produced in the state of Nebraska in September; a record high for the state and an increase of 8.6% since 2008.

According to a press release issued by the Nebraska Ethanol Board, Todd Sneller, administrator of the group said the increase in ethanol production proves ethanol's long-term economic viability. "Ethanol plants have increased production levels and several idle plants have commenced operation under new ownership," said Sneller. "The continued economic impact of ethanol production helps diversify and sustain Nebraska's economy."

Nebraska ranks second in ethanol production throughout the U.S. The state uses ethanol in nearly 70 percent of its motor fuel in the state and they generate millions of dollars in by exporting the domestically grown product.

"Nebraska's ethanol plants continue to generate a variety of important economic benefits. The production of feed, food and fuel from corn helps to stimulate the agricultural sector in Nebraska while creating more than 1,000 jobs for Nebraskans and lowering the cost of gas. Ethanol benefits all Nebraskans, and it's here to stay," Sneller said.

# DISTILLERS DRIED GRAIN YIELDS HIGH-FIBER, HIGH-PROTEIN FLOUR

by PADMANABAN KRISHNAN

*Ethanol Producer Magazine - January 2010 Issue*

Sowmya Arra is known around the lab for her soft-spoken and friendly nature, but the South Dakota State University food science graduate student has big dreams. Arra's goal is to feed the world through a low-cost yet sustainable means using distillers dried grains (DDGs).

While that may seem like a tall order, Arra is well on the way to reaching her goal after winning the graduate research poster competition at the Institute for Food Technologists Conference in Anaheim, Calif. Competing against 50 other graduate students, Arra won a \$1,000 cash award and certificate for her project, "Fortifying Chapathies, an Asian Whole Wheat Unleavened Flat Bread. Using Corn Distillers Dried Grains."

Since the competition in July, Arra's research has expanded to include naan—oven-baked, leavened flat bread popular in Afghanistan, India and Pakistan and which tastes remarkably like pizza crust.

When choosing her thesis project, Arra, who is from India, said she wanted "to make a product that has all the nutrient values." She found that in food-grade, DDGs, which contain 40 percent dietary fiber and 36 percent protein.

"Due to economics and their culture, many people make their own bread," Arra explained. "Since they make flat bread, it only makes sense to provide a better flour ingredient, which has higher nutritional qualities."

Developing food products from DDGs has been a challenge I have faced as Arra's adviser since I came to SDSU in 1989. The food grade DDG is a product I have been working on at SDSU for the past 20 years and I envision limitless possibilities for the flour made from DDGs.

## One case where bland is best.

In order to blend with flour, the DDG flour has to be made aroma neutral, taste neutral and texture neutral. What needs to be created is in essence, a stealth ingredient that blends with the background and allows other ingredients to pick up the slack. This ingredient must also work in harmony with the food system.

So far, that food system can handle about 7 percent to 20 percent of the DDG flour in the traditional flour used in bread products. Adding any more of the DDG flour, particularly in yeast-leavened products, undermines the dough system. By replacing more than 20 percent of wheat flour with the DDG flour, one risks baking "hockey pucks" or "bricks," but flat breads are a different story. Mixed in at the right levels, the DDG flour will add significantly to the fiber and protein of tortillas, cookies, noodles and breads.

## Next step belongs to industry.

A variety of entities have invested in the research so far.

At one time or another in the process, that funding has come from the U.S. Agricultural Research Service, the SDSU Agricultural Experiment Station, the South Dakota Wheat Commission and the South Dakota Corn Utilization Council.

At this point, the team has taken the DDG flour about as far as it can. The entrepreneur is the one who will have to run with it.

Finding those entrepreneurs in a down economy may prove to be difficult. One person who's on the lookout is Kurt Rosentrater, a biomass engineer with the Agricultural Research Service, whose mandate from USDA is to add value to DDGs. Rosentrater has worked collaboratively with SDSU for the past five years.

Closely associated with the research that resulted in Arra's master's thesis, Rosentrater said he has fielded calls from "dozens" of companies that are toying with the idea of pursuing the project. "It's got to be industry's investment," Rosentrater said. "So far, nobody's been willing to pull the trigger and take that leap."

Capturing what could be an international market will start first with the U.S. Food and Drug Administration. Rosentrater said that the FDA will need to ensure that the corn is food-grade from the kernel to the finished product. For some ethanol plants, that may mean the installation of new equipment.

Time may be right for DDG flour.

The federal call for a significant increase in renewable fuels by 2022 will also mean an increase in the production of DDGs. According to Rosentrater, about 80 percent of DDGs is used as feed for beef and dairy animals with the rest going to feed swine and poultry.

"We have not hit a point where we've saturated that market," Rosentrater said, though he does note some interesting factors that may influence the market.

Rosentrater estimates ethanol plants are currently producing between 25 million metric tons and 30 million metric tons of DDGs and the new fuel standards may increase that output to as much as 40 million metric tons.

He said that about 20 percent of U.S. DDGs was exported internationally last year. "That's up considerably," Rosentrater said. "There are plenty of opportunities if the ethanol plants are interested."

This work has accomplished much to add value to an underutilized co-product. The research has always intended to get everything out of the corn, including the squeal.

At present, DDGs are sold at 8 to 10 cents per pound, \$165 per ton, as livestock feed. Food ingredients are sold at about \$2 to \$3 per pound. Adding utility in the food industry will enhance DDGs' economic return to the producer.

We have demonstrated scientific, nutritional and technical merit, but we realize that it is the economic drivers that will permit food-grade DDGs to take wing. The world is hun-



*Padmanaban Krishnan, Kurt Rosentrater and Sowmya Arra form the team at ADSU studying flour made from distillers dried grains. Photo: Eric Lanwehr*

*continued on page 5*

*Distillers continued from page 4*

gry for novel protein, fiber and functional ingredients if the \$21.8 billion nutraceutical ingredients market is any indication.

Far from just a "byproduct" of the ethanol-making process, DDG can account for 20 percent to 40 percent of an ethanol plant's income. Adding value to the dried distillers grain makes business sense while at the same time helping to alleviate world hunger. EP

*Padmanaban (Padu) Krishnan is a food scientist South Dakota State University. Reach him at padmanaban.krishnan@sdsu.edu.*

*(KURT ROSENTRATOR is a speaker at the 20th Annual EPAC Biofuel Conference, June 28-29, 2010 in Missoula Montana)*



GOVERNORS' BIOFUEL COALITION

## Senate Finance Leaders Promise 2010 Biodiesel Credit Extension

Senate Finance Committee leaders vowed today to renew a tax credit for the biodiesel industry in early 2010, an effort to reassure a troubled industry that relies on expiring federal fuel subsidies.

The \$1-per-gallon tax credit is due to expire at the end of this month, after the Senate failed to agree to an extension for the subsidy. The House had approved tax extenders earlier this month.

But Senate Finance Chairman Max Baucus (D-Mont.) and ranking member Charles Grassley (R-Iowa) said today that they intend to work next year to retroactively extend the biodiesel credit along with other expiring tax provisions for biomass, heavy-duty hybrid trucks, and research and development.

In a letter to Senate Majority Leader Harry Reid (D-Nev.), Baucus and Grassley said they "intend to extend the provisions without a gap in coverage."

"As soon as the Senate reconvenes next year, my intention is that we take up legislation to extend these important provisions," Baucus said in a colloquy with Grassley on the Senate floor.

The provisions have support from both sides of the aisle but have been put on hold over disagreements for how to pay for them. Grassley said the provisions were jettisoned from the recent Defense appropriations bill after Democrats tried to tie the tax-extendors to estate tax provisions opposed by Republicans.

At issue are billions of dollars in tax breaks for renewable fuels and other businesses. The extension the House approved earlier this month included the biodiesel credit, an alternative vehicle credit for "heavy hybrids" and a 10-cents-per-gallon small agri-biodiesel producer tax credit.

Tax incentives for research and development, brownfield site remediation, mining safety, deferral of sales tax on electric transmission property and a suspension of rules on depletion for marginal oil and gas wells are also in the bill

(E&E Daily, Dec. 18).

Biodiesel industry executives have said that a lapse in the tax credit could force them to shut down. The industry -- down 30 percent this year compared to 2008 -- is already in a tight spot economically because of slumping fuel demand, higher grain costs and new export tariffs.

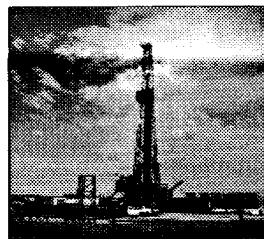
A report released this month by the industry's main trade group, the National Biodiesel Board, said it would collapse without federal help.

"Elimination of the tax credit will essentially erase all profitability in the biodiesel industry leading to a complete decline in output, expenditures and jobs," the report warns.

Grassley said he and Baucus made the announcement today with the hopes that their stated commitment would help buoy the industry. But he told reporters in a call today that he is not confident it will be enough to get some biodiesel producers through -- given problems with cash flow and lenders.

"Without the extension of the next two days, this will give a little bit of certainty to biodiesel producers," Grassley said. "Obviously, not as much as if we had extended this, as should have been done."

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## North Dakota Wants to Start Diesel Plant

*Agweek - Bismarck, ND*

A Fargo, N.D., company is seeking investors for a plant in northwestern North Dakota that would make diesel fuel to help run drilling rigs in the state's oil patch, but one oil industry official says it might be a risky business. Mike Wavra, president of Dakota Oil Processing L.L.C. says his company wants to build the plant near Trenton, southwest of Williston, N.D. It would cost at least \$180 million and provide more than 50 jobs in the area, he says. The so-called diesel topping facility -- a sort of mini refinery -- would be built at the site of an abandoned natural gas plant, Wavra says. The factory could produce up to 567,000 gallons of diesel daily, using crude from the rich Bakken and Three Forks wells in the region, he says. The diesel could be sold to farmers and oil companies in eastern Montana and western North Dakota. Wavra says, Diesel has been in demand with the boom in North Dakota's oil industry. One rig can use up to 2,000 gallons daily. But Ron Ness, president of the North Dakota Petroleum Council, says fuel refiners run on a slim margin and need a steady market to generate enough income to pay back investors. North Dakota had a record 98 rigs working last fall, but the count dropped to about 30 early this year. Sixty-three rigs have been operating recently. "It seems like a simple idea but the economics are tough," Ness says.

# REBORN BARLEY

By Charles Johnson - Top Producer - December 2009



Just when the corn ethanol business was gasping for relief, with biofuel makers in the heartland going bankrupt, the nation's largest ethanol plant using barley as a feedstock broke ground in Hopewell, Va.

The Osage Bio Energy plant, with a 65-million-gallon annual capacity, opens for business in mid-2010. Its startup, funded by a \$300 million equity investment from First Reserve Corporation, is different from those of its Corn Belt brethren.

In 2007, the company was spun off from Osage, Inc., a gasoline and ethanol distributor in the Southeast. Its funding coup might have been the last ethanol plant deal inked before the industry crashed, says Craig Shealy, Osage Bio Energy president and CEO.

Since the mid-Atlantic is not a particularly good corn-producing area and the poultry business already consumes most of the corn produced there, the company investigated other feedstocks. Barley kept turning up as the answer.

"We didn't feel we could build a corn plant in Virginia. So what else can we do? We were not ready to invest in new technologies like cellulosic. We wanted this plant to be evolutionary rather than revolutionary. It became obvious that the answer was barley," Shealy says.

For those accustomed to thinking of barley as a fairly ho-hum crop with little marketing potential other than as malt for beer brewers, the choice might not be quite so obvious. However, Katzen International, Inc., the process design and technology company Osage chose to construct the facility, had already built barley-based ethanol plants in Europe. Those plants were running smoothly.

Osage determined that about 5 million acres in the mid-Atlantic and Southeast regions each year are either fallow or grow noncash cover crops during the winter. Barley, which grows well in that geography, could fill the gap without pulling much acreage from other crops.

**Ahead of the Game.** In addition, barley could be harvested as much as two weeks earlier than wheat. If soybeans followed barley in a double-crop system, they could produce yields close to those of full-season soybeans. That, company executives reasoned, should appeal to farmers. They were right.

"When we add barley to the mix with double-crop beans, we get the same yield as with full-season beans," says Kevin Engel, a Hanover, Va., farmer who has already grown barley for Osage's startup. "In addition, it gives us an opportunity to spread out our small-grain harvest season and better utilize harvest equipment."

On his farm, the chance to diversify to a second small grains a real draw. "It has become more challenging to grow wheat consistently without getting docked by the flour mills," Engel says. "And anytime a business moves in next door and will consume 29 or 30 million bushels a year, that's

going to be a market that interests us."

**Quality Product.** Area farmers should have little trouble producing good-quality barley. "Barley works well in our rotation, which is usually corn one year followed by a small grain over the winter, followed by soybeans planted the next June," says Wade Thomason, Virginia Cooperative Extension grain specialist. "In some years, planting soybeans earlier means a yield increase of up to a bushel a day.

"The price of soybeans has a large influence on it, and \$10 soybeans make barley look even more attractive," Thomason says.

**Another thing:** This is not grandpa's barley that farmers are planting today. Breeders have made big genetic improvements in the crop, Thomason says, and some of the nation's most renowned barley geneticists work at Virginia Tech University in Blacksburg.

"It has been a huge part of the breeding program on campus. Our growers in the state are now averaging more than 70 bu./acre. When I do barley budgets now, I figure 85 bu./acre if it's on better-drained, sandier land," Thomason says.

Bobby Hutchison, who farms in Cordova, Md., on the Eastern Shore and is participating in the Osage Bio Energy program, has grown large-scale acreages of barley averaging as much as 140 bu./acre. "I could not be any more excited about this program," he says.

Hutchison was part of a group that attempted to build an ethanol plant in the area but had to back off due to funding difficulties. "I have long been a promoter and a believer in ethanol. But this is a corn-deficit area. We just cannot grow good corn here. Barley can be used as a feedstock and without hurting our poultry industry at all," he says.

The Osage Bio Energy project gives Hutchison access to a new market without greatly extending his risk. "They're the ones taking the risk," he says. "They're 150 miles away, so they're not quite as close as I would like, but there's demand for the crop and I do like that.

"We've grown barley before. It grows very well in the mid-Atlantic region, but we lost our market for it," Hutchison explains. "It was being shipped to the Mideast for camel feed, but we had problems with low test weights and that wasn't making the end user happy. And the poultry industry would use barley only when it was really cheap."

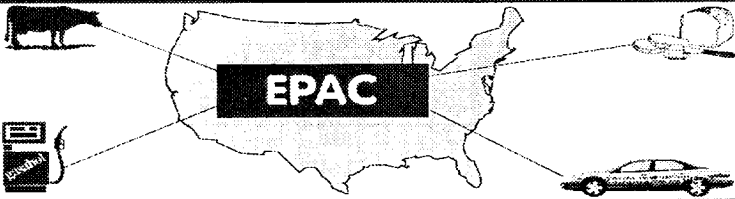
Perdue AgriBusiness is sourcing the barley for Osage. Perdue contracts with farmers for the barley and uses its elevator facilities to store it. The contracts are based on a percentage of corn contracts.

If barley fails to be a competitive feedstock, the Osage plant can be easily converted to use other grains. Shealy, however, insists barley will be a winner. "The plants in Europe running on barley are doing well," he says. "It's the No. 4 cereal grain on the planet. We're going to add value by processing it. We're going to end up with an offer for barley that's pretty compelling relative to wheat."

Shealy is so convinced of this that, even before the first gallon of barley-based ethanol has gone through the plant, his company is looking to open two other plants in the mid-Atlantic or Southeast region. "We've looked at 80 to 100 sites for future plants," he says.

Osage Speaker Invited to 20th Anniversary Conference.

## Ethanol Producers And Consumers



# Information Center

## www.ethanolmt.org

Call EPAC today and ask about advertising space

## Around the Industry.....People and Business

### INVIZ....

Poet LLC has developed an ethanol by-product capable of replacing petroleum-based ingredients in various household products. According to the company, Inviz can be used as a gum base or in films, packaging, adhesives, coatings and glazes. It is Poet's own brand of zein, derived from the less-valuable protein in distiller's grains, and is extracted using a patent-pending process developed by Poet. Because Poet's production process fractionates the corn kernel and ferments ethanol without requiring the use of heat, the company said its zein product is more pure corn protein than other similar products.

### GROWTH ENERGY...

**Well-known corn grower and ethanol industry member Gary Pectorious** has joined the board of directors of Growth Energy. His is replacing Darrin Ihnen, who left the board to assume the role of president of the National Corn Growers Association. Pectorious is a charter member of the Minnesota Corn Growers Association and has served as chairman of Poet Biorefining - Glenville in Albert Lea, Minn., for 10 years. He also serves on the boards of Poet Biorefining - Hanlontown in Iowa and Poet Biorefining - Lake Crystal in Minnesota and is chair of the SoyMor Biodiesel LLC plant in Minnesota.

### GENENCOR...

Genencor, a division of Danisco, received the national sustainable energy award from the American Institute of Chemical Engineers (AIChE) for its accellerase family of enzymes for cellulosic ethanol. The AIChE awards committee presented the award to Landon Steele, marketing director for biomass enzymes and accellerase product manager, and Aaron Kelley, senior engineer of biomass applications and the accellerase 1500 project leader. The AIChE sustainable energy award recognizes the critical impact of chemistry and biochemistry innovations in developing sustainable energy solutions.

### RENEWABLE FUELS ASSOCIATION...

The Renewable Fuels Association has elected officers and members to its board of directors for 2010. Chris Standlee, executive vice president of Abengoa Bioenergy, was re-elected chairman of the board for a third term. Nate Kimpel was re-elected as treasurer. Bob Dinneen was also re-elected as president of the association, a post he has held since 2001.

### SOLAZYME...

Renewable oils developer Solazyme took the No. 1 spot in the 2009 "50 Hottest Companies in bioenergy" rankings, published in biofuels Digest. The list recognizes innovation and achievement in bioenergy development. More than 1,000 companies were eligible in the rankings. The other companies in the top 50 list, starting with second place are POET, Amyris Biotechnologies, PB Biofuels, Sapphire Energy, Coskata, DuPont Danisco, LS9, Verenium, Mascoma, Novozymes, UOP, Gevo, Range Fuels, Abengoa Bioenergy, PetroAlgae, Synthetic Genomics, Petrobras, Bluefire Ethanol, ZeaChem, Qteros, Virent, Iogen, Algenol, Enerkem, Genencor, Royal Dutch Shell, Ceres, ExxonMobil, Cobalt Biofuels, Aurora Biofuels, Joule Biotechnologies, Syngenta, KL Energy, Codexis, IneosBIO, Renewable Energy Group, Rentech, Praj Industries, Neste Oil, LanzaTech, OriginOil, Choren, Solix Biofuels, Chemrec, Dynamotive, Terrabon, Fulcrum Bioenergy, SG Biofuels and Inbicon.

- *Governors Biofuels Coalition*  
[www.governorsbiofuelscoalition.org](http://www.governorsbiofuelscoalition.org)
- *American Coalition for Ethanol*  
[www.ethanol.org](http://www.ethanol.org)

Thanks to those who have paid 2010 EPAC dues! Membership is very important to a non profit group such as EPAC. Membership dues are used for the many projects that EPAC accomplishes to educate and promote about biofuels. EPAC fiscal year is November 1 - October 31, and a dues notice was sent. If you have not paid your dues, please do so today.

# KATZEN

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