Iowa Renewable Fuels Association
GREEN Team
Grassroots REnewable Energy Network
Newsletter for renewable fuels advocates
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New Study Shows Dramatic Decrease in GHG Emissions with Ethanol

A new report completed by a team of researchers from the **University of Nebraska** and led by **Dr. Ken Cassman**, evaluated dry-mill ethanol plants that use natural gas. Such plants account for nearly 90 percent of current production capacity.


Dr. Ken Cassman

This new report published in the ***Journal of Industrial Ecology*** stated that "Corn-ethanol biofuel production in the U.S. is expanding rapidly in response to a sudden rise in petroleum prices, supportive federal subsidies and the adoption of improved technologies to increase energy efficiency and profitability in crop production, ethanol conversion and co-product use."

The study evaluates the latest corn and ethanol production data to determine the effects that this will have on the environment. The researchers found that corn-ethanol emits an average 51% less greenhouse gas than gasoline, three times the reduction reported in earlier research.

"This research is the first to quantify the impact of recent improvements throughout the corn-ethanol production process. Previous studies, which found ethanol to have only a small edge over gasoline in greenhouse gas emissions, relied on estimates from seven years ago. More recently built, and more efficient, plants now represent about 60 percent of total ethanol production and will account for 75 percent by the end of 2009. These newer biorefineries increase energy efficiency and reduce greenhouse gas emissions through the use of improved technologies," stated Dr. Cassman.

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Science & Song Move Biodiesel Industry

The role of policy, science and song in biodiesel sustainability came together at the **National Biodiesel Conference and Expo.** "Shades of Green: Ensuring a Sustainable Future for a Sustainable Fuel" featured a telecast by **North Dakota Governor John Hoeven**, remarks from life-cycle analyst **Don O' Connor** as well as an inspirational performance by biodiesel user and Grammy and Academy Award winner **Melissa Etheridge.**

During the Conference, the **National Biodiesel Board (NBB)** released its Guiding Principles for Sustainability. "We are already providing a very sustainable fuel, and these principles are another way we're ensuring that, as our industry grows, it continues to increase the quality of life, safeguard the environment and strengthen economies," said **Emily Landsburg, Chair of the Sustainability Task Force.**

Governor Hoeven, **Chair of the Governor's Biofuels Coalition**, stressed the Coalition's plan to continue working with the NBB because of biodiesel's benefits for job creation, the economy and the environment. Hoeven recognized biodiesel as already reducing the equivalent greenhouse gas emissions of taking nearly 1 million vehicles off the road.

O'Connor is working with NBB to ensure life cycle assessments applied to biodiesel are based on sound science. "Some tools are trying to be adapted to something they were never meant to do," said O'Connor, who also emphasized the importance of transparency in assessing land use and more.

Etheridge told the attendees about how and why she has used biodiesel in her last three concert tours as well as in her personal vehicle. "It's easier than you think.

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A close-looped biorefinery with an aerobic digestive system reduced GHG emission by 67% and increases the net energy ratio to 2.2. Such improved performance moves corn-ethanol much closer to the hypothetical estimates for cellulosic biofuels.

The findings clearly indicate that the recent improvements in crop production, biorefinery efficiency and co-product utilization in corn-ethanol systems have enhanced greenhouse gas emissions reductions, net energy efficiency and life-cycle petroleum use.

Corn Charged Truck Up for Grabs: Iowa Corn Launches Iowa Corn Fed Sweepstakes

In Iowa, it's hard not to notice cornfields. It is even harder not to notice the many corn-fed industries from livestock to food, and, of course, corn ethanol.

"Corn ethanol kept Iowa's fuel prices well below the national average - even during really high prices last summer," said **Shannon Textor**, **market development director** for **Iowa Corn**. "By launching an educational campaign about our corn fed markets and giving away a corn-powered E85 Chevy Silverado, we hope to help Iowans understand that they win by being corn-fed, whether it's food or fuel."

The **Iowa Corn Fed Sweepstakes** includes the giveaway of a souped-up 2009 black Chevy FFV Silverado. The truck will be on tour from January 15 to May 22 throughout Iowa, including promotions at Iowa State University, the Iowa spring football game, and many events at Wells Fargo Arena.

Consumers can enter the drawing once each month in person at tour stops or online at www.iacornfed.com.

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Any diesel engine can run on biodiesel," says Etheridge. NBB **CEO Joe Jobe** honored Etheridge with this year's Influencer Award.

Jobe has described San Francisco as an inspiration to the biodiesel industry. In addition to the 1,500 city vehicles operating on B20 and a city-led **Biodiesel Task Force**, San Francisco has a number of high profile users and locations that made it the ideal city to host the biodiesel conference.

Ricardo, Inc. Claims Breakthrough Efficiency for Ethanol Engines

Ricardo, Inc. has developed technology that optimizes ethanol-fueled engines to a level of performance that exceeds gasoline engine efficiency and approaches levels previously reached only by diesel engines. The technology, called **Ethanol Boosted Direct Injection** or **EBDI**, takes full advantage of ethanol's best properties -- higher octane and higher heat of vaporization -- to create a truly renewable fuel scenario that is independent of the cost of oil.

"Developing renewable energy applications that can lead to energy independence is a top priority at Ricardo," said **Ricardo President Dean Harlow**. "We've moved past theoretical discussion and are busy applying renewable energy technology to the real world. The EBDI engine project is a great example because it turns the gasoline-ethanol equation upside down. It has the performance of diesel, at the cost of ethanol, and runs on ethanol, gasoline, or a blend of both."

EBDI solves many of the challenges faced by flex-fuel engines because it is optimized for both alternative fuels and gasoline. The EBDI engine substantially improves ethanol's efficiency, and performs at a level comparable to a diesel engine.

"In real-world terms, these efficiencies mean that EBDI can reduce the actual cost of transportation when compared to fossil fuels, and it does it with a renewable resource-ethanol," said **Rod Beazley**, **director** of **Ricardo's Gasoline Product Group**.

[Corn Fed continued from Page 2]

Weekly winners of beef, pork, dairy products, Indy 250 race tickets or ethanol prizes will be chosen, and ten lucky winners will attend the 2009 Iowa Corn Indy 250 on June 21, where one will draw the key that opens his or her new Iowa corn-fed truck.

"It's time to be proud of the fact that we are able to feed and fuel the world with corn grown here in Iowa," Textor said. "The Iowa Corn Fed Tour will build on and reinforce Iowans' existing appreciation for corn and agriculture."

The Iowa Corn Fed Sweepstakes is part of a larger educational effort on television, radio, billboard, and the internet. The campaign highlights the many uses for corn and focuses on demonstrating how corn upholds Iowa, including the economy, jobs, the environment, and energy security.

3rd Annual Renewable Fuels Summit

Slideshows

Available online at:
www.iowarfa.org/Program.Web.php

Clark Becomes Growth Energy Co-Chairman

Growth Energy, an organization dedicated to promoting clean energy and expanding the use of ethanol in gasoline, announced Feb. 5 that **national Democratic leader** and four-star retired **Army General Wesley Clark** has become its Co-Chairman.

"It's great to take the lead in Growth Energy and move us into a new time for ethanol. I'm very impressed with what I've seen in the ethanol industry," Clark said. "What we're doing for national security is profound because every gallon of ethanol produced is a gallon of imported gasoline that we avoid."

Growth Energy was launched in November 2008. "We have aggressively hit back on the misleading attacks on clean, green renewable energy and ethanol," said **Bruce Rastetter**, **chief executive officer** of **Hawkeye Energy Holdings** and Growth Energy board member.

growth energy
America's Ethanol Producers

EIA: Despite Economy, Ethanol Production Increases

According to the Energy Information Administration (EIA), American ethanol facilities were producing 668,000 barrels per day (b/d) in November 2008. That is an increase of 189,000 b/d from a year ago or approximately 8 million gallons per day. Through November, the ethanol industry was averaging 596,000 b/d of production, or more than 9.1 billion gallons on an annualized basis.

Ethanol demand, as calculated by the Renewable Fuels Association, continues to outpace production. In November, the RFA estimated ethanol demand at 683,000 b/d. Daily average demand for ethanol through November 2008 was more than 623,000 b/d, or more than 26 million gallons.

According to International Trade Commission data, imports of ethanol totaled more than 20 million gallons in November, bringing year-to-date imports of ethanol to more than 536 million gallons.

The RFA released the following statistics:
(mg = million gallons; b/d = barrels per day)

- Fuel Ethanol Production 842.3 mg/668,000 b/d
- Fuel Ethanol Use 864 mg/683,000 b/d
- Fuel Ethanol Stocks 639.5 mg/22.2 days of reserve
- Fuel Ethanol Exports 0.0mg n/a
- Fuel Ethanol Imports 20.3 mg*

*Source: U.S. International Trade Commission
Jim Jordan and Associates

A complete list of ethanol facilities and total operating capacity can be found at www.EthanolRFA.org/industry/locations.

The **Renewable Fuels Association** calculates that an estimated 1.8 billion gallons of capacity are currently idled. "While we may see a slight slow down due to economic troubles, ethanol production and demand will continue to increase on a year-to-year basis," commented **RFA Communications Director Matt Hartwig.**

"We've got to change what we're putting in our gas tanks, we've got to address security concerns of using foreign fuels, and begin addressing the climate change due to constant use of petroleum and the most effective way to do that is to use renewable fuels," Hartwig concluded.

SYNERGY Meal Now Available in Galva
Biodiesel Production Next Step

Maple River Energy has completed the first stage in their biodiesel project and is now shipping **SYNERGY** meal and hulls to area feed mills, elevators and livestock producers.

Currently, Maple River Energy, LLC is operating 2 of its 4 soybean presses until SYNERGY marketing efforts catch up with day-to-day production. At capacity, the plant will manufacture 240 tons of SYNERGY meal per 24-hour work day.

The next phase of the project will be completion of a 5 million gallon biodiesel facility that will use soy oil from their crush facility, making Maple River Energy one of the latest companies to make biodiesel out of their own raw materials.

Iowa Secretary of Agriculture Bill Northey will be at Maple River Energy in Galva on February 16th to present **Galva Holstein Ag, LLC** with the *2009 Ethanol Marketer of the Year Award.* Galva Holstein Ag, LLC was nominated for this award because of their ongoing efforts to promote ethanol and expand the availability of higher ethanol blends.

National Biodiesel Board Launches YouTube Channel

It's been called the MTV of this generation. Now YouTube, the number one Web site for online video sharing, is home to a comprehensive source of biodiesel videos and news. People searching for biodiesel information will be able to find credible, helpful and entertaining videos on the new National Biodiesel Board YouTube Channel: www.youtube.com/NationalBiodiesel

The NBB first unveiled the channel at last week's National Biodiesel Conference and Expo in San Francisco. Videos from the conference that have been posted include a San Francisco Road Trip, highlighting the many biodiesel users in the host city, and videos featuring industry leaders talking about sustainability and other key issues. Singer Melissa Etheridge addressed the conference attendees, and her inspirational remarks are also available.

Biodiesel fans can become subscribers to the channel. YouTube will notify subscribers whenever new videos are posted, and they can also comment on them and share them with friends.

Wal-Mart Testing Biodiesel

Wal-Mart Stores, Inc. said it will test two new types of heavy-duty commercial hybrid trucks and two different alternatively fueled heavy-duty trucks, as a part of the company's efforts to develop a more sustainable trucking fleet.

The new trucks include:

- 15 trucks operating in a Buckeye, AZ, distribution center will be converted to run on Reclaimed Grease Fuel, made with the waste brown cooking grease from Wal-Mart stores. In addition, the remaining trucks located in the Buckeye distribution center will operate on an 80/20 blend of biodiesel made of reclaimed yellow waste grease.
- 5 Peterbilt Model 386 heavy-duty trucks with diesel-electric hybrid power systems which will be based in Dallas, Houston, Apple Valley (CA), Atlanta and Washington/Baltimore regions.
- 4 Peterbilt Model 386 trucks and one yard truck that operates only on the distribution center property will operate on liquid natural gas.

"In order to meet our goal of doubling our fleet efficiency, we are taking an active role in the development of these technologies," said **Chris Sultemeier, Senior Vice President of Transportation** for **Wal-Mart, Inc.** "We look forward to determining if these technologies will help reduce our environmental footprint, are viable for our business and provide a return on investment."

Wal-Mart is working toward its goal of doubling its fleet efficiency by 2015, from its 2005 baseline. Part of this pilot program is to determine if alternatively fueled trucks can help move Wal-Mart toward the goal in addition to reducing environmental impacts.

NEW E85 Locations

Multi-County Oil CO.
300 E. State St.
Williamsburg, IA 52361

Aspinwall Cooperative Co.
Blender Pump offering E10, E20, E30, E50 & E85
Hwy 141 & West St.
Manning, IA 5145