



Iowa Renewable Fuels Association

GREEN Team

Grassroots REnewable Energy Network

Newsletter for renewable fuels advocates

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70,000 Americans Directly Benefit from Ethanol Production

Throughout these hard economic times, American ethanol production has continued to grow. With ethanol plants operating and being built in 29 states, the economic benefits of domestic ethanol production are having an impact for hundreds of thousands of Americans.



According to an economic analysis from **Cardno ENTRIX** economist **John Urbanchuk**,

released at the **National Ethanol Conference**, 70,600 Americans are employed directly in the production of ethanol and in industries providing goods and services to ethanol producers. As a result of the economic activity generated by ethanol production, more than 400,000 Americans have been able to keep their jobs or find new ones.

Ethanol production is also contributing to our nation's financial well-being as well as that of American households. In 2010, ethanol production contributed \$53.6 billion to the national Gross Domestic Product and added \$36 billion to household incomes.

Additionally, ethanol production is paying for itself. The increased economic activity and income generated by America's ethanol industry added some \$12 billion to federal, state and local governments through increased tax revenue.

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Production Biofuels Certified for Aviation Fuel

The **C-17 Globemaster III** was recently certified for unlimited usage of hydroprocessed blended biofuels known as hydrotreated renewable jet fuels.

"We're very proud of this certification," said **Air Force assistant secretary Terry Yonkers**. "By using a 'pathfinder' approach, we've taken the success of our processes developed in our previous alternative fuel certifications work and learned how to efficiently streamline our HRJ certification efforts, while guaranteeing the fuel blend will work without notable difference to the pilots."

Mr. Yonkers added that unlike conventional jet fuel, biofuels burn cleaner without compounds like sulfur.

According to **Jeff Braun**, the **Air Force's alternative fuel certification office chief**, the blended fuel evaluation that combined additional analyses from **Boeing**, **Parker ESD** and **Pratt & Whitney** resulted in no significant differences in engine stability, thrust response or engine steady-state performance.



"We expect to conclude HRJ flight testing within the next 12 months, supporting fleetwide HRJ certification within the next 22 months," Mr. Braun said.

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Domestic ethanol production improves our nation's balance of trade while also reducing our reliance on foreign oil. The production of 13 billion gallons of ethanol means that the U.S. needed to import 445 million fewer barrels of oil in 2010 to refine gasoline.

That is more oil than America imports from Saudi Arabia annually. Displacing these barrels saved the U.S. \$34 billion in 2010.

"The investments we have made in our domestic ethanol industry are paying dividends in thousands of communities all across the nation," said **Renewable Fuels Association President Bob Dinneen**. "The jobs, economic activity, and energy security benefits we are witnessing today thanks to a commitment to renewable alternatives to imported oil are just scratching the surface. Continued innovation in ethanol technologies along with a renewed commitment to giving Americans more control over their energy future will create hundreds of thousands of more jobs and put America back in business as a leader in energy innovation."

Watch for E15 This Summer



The ethanol market is another step closer to expanding beyond E10, according to **U.S. EPA Senior Policy Advisor Paul Argyropoulos**. Speaking at the **National Ethanol Conference**, Argyropoulos told attendees to expect a final rule implementing the approval of E15 in April or May. The fuel registration data has been submitted to EPA for

review and a label for E15 pumps is being finalized. These are critical steps to making E15 available to owners of 2001 and newer cars and light-duty trucks.

There will be 150 million vehicles on the road this year capable of operating on E15, according to the EPA. These vehicles use 74% of all gasoline sold in the U.S. Argyropoulos projected an increase to 187 million vehicles in 2014 that could consume 85% of all fuel sold.

Iowa was also mentioned as a state where there are no state laws or regulations impeding the use of E15. Beyond state and federal approval of E15, there are business decisions that retailers must take into consideration; however, several Iowa retailers are already geared up to offer E15 as soon as EPA issues the final ruling.

US Military Supports Hawaiian Biodiesel Project

Hawaii Governor Neil Abercrombie introduced a new oilseed crop research program—the **Biodiesel Crop Demonstration (BCD) Project**—that will span two years as an effort to promote energy security and local agricultural technologies on the islands. The BCD is a collaborative effort between **Pacific Biodiesel Inc., U.S. Marine Corps, U.S. Army Corps of Engineers Research and Development Center, and Army Installation Management Command, Pacific**.

"We've had huge support from the Army and the Marines," **Kelly King**, vice president of Pacific Biodiesel told *Biodiesel Magazine*. "It's really refreshing to be working with folks in the military who are thinking outside the box and that are looking forward to doing something that's sustainable and environmentally sound, as well as part of our state's economic development."

"We're looking at planting 100-day crops where, from start to finish, we could have biodiesel in 120 to 130 days," King said. "Our goal is to show how quickly we could have fuel starting at zero—from seed to fuel."

King said Pacific Biodiesel intends to convert the oils into methyl esters at the company's **Big Island Biodiesel** production plant, once construction on the facility is complete.

Green Plains Acquires Ethanol Plant

Green Plains Renewable Energy Inc. (GPRE) has announced it will purchase certain assets of **Otter Tail Ag Enterprises LLC**. The addition of this 55 million gallon dry mill ethanol plant near Fergus Falls, Minn., brings GPRE's total expected production capacity to approximately 715 million gallons annually.



A subsidiary of Green Plains Renewable Energy, Inc.

"The Fergus Falls plant is in a great location with ample feedstock and an excellent workforce," said **Todd Becker, GPRE president and CEO**. "We are continually looking for opportunities to expand production at reasonable valuations and adding this operating plant to our business is a solid fit for us."

GPRE owns three Iowa ethanol facilities with a combined production capacity of 220 million gallons.

Advanced Ethanol Companies Form New Advocacy Council

Leaders in the world's advanced ethanol industry announced recently that they are



coming together with the **Renewable Fuels Association (RFA)** to form the **Advanced Ethanol Council (AEC)**. The AEC will be singularly focused on accelerating the commercialization of advanced ethanol.

The AEC represents a wide range of advanced ethanol technologies utilizing feedstock from grasses and corn stalks to wood waste, municipal solid waste and algae to produce clean, renewable ethanol.

“Advanced ethanol production and use is a critical component of America’s strategy to become more energy self-reliant,” said **Mascoma Chief Executive Officer Bill Brady**, who will serve as Chair of the AEC.

“American ethanol production is one of the most dynamic industries anywhere in the world,” said **RFA President Bob Dinneen**. “The innovative companies founding the AEC are leading the evolution of domestic ethanol production to include a vast array of feedstocks. The RFA is proud to join with the members of the AEC and continue its work building a bigger and broader American ethanol industry.”

NREL Releases Latest B20 Biodiesel Quality Data

Teresa Alleman, senior chemist at **National Renewable Energy Laboratory (NREL)** in Golden, Colo., presented the latest biodiesel quality survey results at the recent **National Biodiesel Conference**. The results are very positive, not only for biodiesel producers who make the fuel, but also for blenders and end-users.

Samples were taken from retail locations from December 2009 until January 2010, and 75% were obtained from regions NREL deems as colder, while the remaining were taken from warmer regions. Geographic areas with average temperatures below 10.4 degrees Fahrenheit are considered cold climates, Alleman said, and above that are deemed warmer.

Tests for accurate biodiesel content in the samples showed 95 percent were blends of B20 or below, and 76 percent were between B6 and B20. Only one sample displayed higher biodiesel content than 20 percent.

Ethanol and DDGS Exports Continue Growth

The 2010 export volumes for both ethanol and dried distillers grains with solubles (DDGS) have increased substantially over the past year. Looking at the DDGS side, American ethanol producers exported a record 9 million metric tons of livestock feed, a 60% increase over 2009. The top five countries that received American DDGS were China, Mexico, Canada, South Korea, and Vietnam.

When examining ethanol, America exported 397 million gallons of ethanol in 2010, almost a 400% increase over 2009. Of this total, 68% was denatured gallons likely destined for foreign fuel markets. The remaining 32% was undenatured gallons possibly used for industrial purposes other than fuel use. The five highest recipients of U.S. ethanol were Canada, the Netherlands, the United Kingdom, India, and the United Arab Emirates.

Corn Projections Optimistic for Ethanol

According to the **National Corn Growers Association (NCGA)**, although corn stocks may be a little tight right now, that’s probably a short-term solution.



“Still our biggest challenge is that we can overproduce the market,” said **Rick Tolman**, CEO of NCGA following his presentation at the National Ethanol Conference hosted by the Renewable Fuels Association. “Farmers respond to incentives – there’s an incentive right now to produce. I can guarantee we’ll have a big crop in 2011.”

Tolman makes that confident prediction after an informal survey of the NCGA farmer board members, who are mostly ahead of the game right now as far as being ready for spring planting, compared to where they were a year ago. “We’re coming into the season in about as perfect a condition as you can have, he said, adding that odds favor significant yields in 2011 and a larger carryover in 2012.”

Looking at past trends in carryover stocks, for the last five years, corn stocks have been approximately 1.5 billion bushels. For the period 1990-2004, corn carryover was around 1.4 billion bushels. Today’s corn surplus exceeds that of 20 years ago, before the dry mill corn ethanol industry really started evolving.

East Fork Biodiesel Sold

East Fork Biodiesel in Algona, Iowa, has been sold and will undergo modifications, according to its new owners, **Enervation Advisors** based out of New York.

The 60-million gallon per year plant has never operated and requires a significant amount of work to conform to the Enervation plan for the property, according to the new owners.

“We have a strategic plan for the Algona location that enables the facility to thrive and to fulfill its promise to the community for the jobs so sorely needed in the area,” said **Enervation founder Paul Tantillo**.

Last month, Enervation purchased the biodiesel and glycerin facilities in Keokuk, Iowa, from **Tri-City Energy**. The facility includes a five million gallon biodiesel unit, as well as a four million gallon per year glycerin purification plant.

5th Annual Iowa Renewable Fuels Summit

Presentations available at:

http://www.iowarfa.org/PDF/Program1-26-11_012.pdf

Switchgrass Reduces Enzyme Use, Boosts Ethanol Yields

Researchers at **The Samuel Roberts Noble Foundation** in Oklahoma have successfully modified switchgrass to reduce levels of lignin in the plant, making it easier to process for conversion to ethanol. Fermentation studies conducted at the **U.S. DOE’s Oak Ridge National Laboratory** showed that the modified switchgrass produced more sugars than traditional switchgrass and not only produced approximately one-third more ethanol but also required less severe pre-treatment and fewer enzymes during the conversion process.

“These transgenic lines require lower temperature pre-processing and only one-quarter to one-third the level of enzymes for equivalent ethanol fermentation compared to unmodified switchgrass,” said Zeng-Yu Wang, a lead project researcher. “This significantly lowers the cost of biofuels and biochemicals from this switchgrass.”

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Dinneen Highlights Strengths and Opportunities for U.S. Ethanol Industry

During the 16th annual **National Ethanol Conference, Renewable Fuels Association (RFA) President Bob Dinneen** declared that “this industry can and will meet today’s challenges as it has met every ‘insurmountable opportunity’ of the past, and that we will, once again prevail.”



Dinneen addressed the expiration of the **Volumetric Ethanol Excise Tax Credit (VEETC)** at the end of this year and the dialogue of reform for this policy.

“Congress does appear ready to end the ethanol tax incentive program – at least, end it in its current form and cost. Our industry needs to work with Congress and the Administration to reform the tax incentive moving forward.”

He also highlighted that any discussion of ethanol tax policy must include a discussion of all energy tax policies. “We must address the permanency of tax incentives for very mature and profitable energy industries with the ‘extenders game’ played with renewable energy technologies. We also we need to make sure that if the still emerging biofuels industry is doing its part to reduce government debt, then the entrenched petroleum subsidies are on the table as well. After all, it’s more than just market access that will determine our future; it is market economics first and foremost.”

“Beyond the halls of Congress, there is also much work that needs to be done to expand markets. Last month, **EPA** announced its approval of E15 for 2001 and newer vehicles. But much work still needs to be done to encourage gasoline marketers to offer E15 to consumers.”

Dinneen concluded his address by highlighting how the ethanol industry must keep on growing and maintaining relationships. “We need to do what the RFA has done for 30 years – build bridges. We need to build a bridge wide enough for the entire biofuels industry to cross to a more sustainable energy future. We need to build a bridge to our customers and consumers so the road to increased ethanol use is paved with understanding. And we need to stride confidently across this bridge with enough vision, strength and innovation to conquer the insurmountable opportunities of our time.”