

# Climate of Opportunity



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Each year brings with it new challenges and greater opportunity for America's ethanol producers. In 2009, that certainly was the case. The recession, volatility in commodity markets, rising energy costs, and a dysfunctional capital market left our industry reeling, like many others. It was one of the hardest years in our industry's short history.

Yet, despite the worldwide economic crisis, the ethanol industry did what it always does: endured and continued moving ever-forward.

Our industry produced a record 10.6 billion gallons of ethanol in 2009. Efficiency enhancements and innovations in production combined with improved farming techniques allowed us to achieve this record with existing corn acreage and reduced process water.

As we look to the future, the industry faces challenges that can be turned into opportunity with hard work and cooperation. The industry will continue to be challenged by efforts to regulate carbon and account for land use change. With the facts on our side, these efforts can easily become our opportunities. Ethanol's carbon footprint is improving with every new plant and each new technology brought into commercial application. The same cannot be said for petroleum and other fossil fuels. Their carbon footprint worsens with every new well drilled deeper in the Gulf and each new gallon scraped from tar sands.

Expanding ethanol use is critical to future growth. We must agree that all blend levels need to be part of the equation. Growing market opportunities for ethanol will require increasing the amount of ethanol blended in conventional gasoline as well as the expansion of higher level blends through the use of blender pumps. Greater market opportunity for ethanol is critical to the future viability and ultimate success of our industry.

Even in the most challenging of years, this industry has continued its progressive march to the future. In every corner of the country, new technologies are improving the production process and expanding the basket of feedstocks from which ethanol is made. New co-products, improved efficiencies, and diverse feedstocks from woodchips to sugar waste to garbage are opening new doors and greater opportunity for scores of communities all across the country.

All in all, the continued evolution of America's ethanol industry is good news. It means more jobs creating renewable sources of energy. It means fewer greenhouse gases and a ready tool to address climate concerns. It means we can finally tell petro-dictators, "Thanks, but no thanks."

Indeed, this is a climate of opportunity.

Sincerely,



Bob Dinneen, President & CEO



# 2010: From Challenge to



Each year brings with it new challenges and greater opportunity for America's ethanol producers. In 2009, that certainly was the case. Like other industries, ethanol saw a bleak economic outlook in 2009 turn into a bright and optimistic view by the beginning of 2010.

Buoyed by a slowly recovering economy and rational behavior returning to energy and commodity markets, ethanol producers saw a return to profitability in the second half of 2009. Temporarily idled biorefineries resumed operation and recently finished facilities began operation as the industry marched on toward meeting the volume requirements of the Renewable Fuels Standard (RFS). Two-thousand nine was a record year for ethanol production, with 200 biorefineries churning out an estimated 10.6 billion gallons of renewable ethanol.

Not only has ethanol become a ubiquitous component of our nation's fuel supply (today ethanol is blended in 80% of the nation's gasoline), it is leading the way toward more sustainable energy production. Ethanol biorefineries today require substantially fewer British Thermal Units (BTUs) of natural gas to produce a gallon of ethanol. Facilities are utilizing water resources more creatively and responsibly, reducing total consumption and replacing fresh water with previously treated or "gray water" sources. Ethanol plants are also producing more, increasing ethanol yields and developing new co-products to join distillers grains as valuable components in feed, food and fuel markets.

This evolution and innovation is just getting started. Growing to meet rising demand created by the RFS, an additional 16 biorefineries are being built or expanded that will add 1.4 billion gallons of new capacity. Each of these facilities will use the most advanced technologies to produce ethanol in a manner that maximizes benefits to society and improves balance sheets.

Just as traditional ethanol production continues to expand, new generations of technologies are poised to join the marketplace, further enhancing America's ability to provide a renewable, sustainable alternative to imported oil.

## U.S. ETHANOL PRODUCTION CAPACITY BY STATE

*In Millions of Gallons*

	Nameplate	Operating	Under Construction/ Expansion	Total
Iowa	3,293.0	3,183.0	380	3,673.0
Nebraska	1,523.0	1,454.0	275	1,798.0
Illinois	1,350.0	1,350.0	93	1,443.0
Minnesota	1,136.6	1,112.6	0	1,136.6
South Dakota	1,016.0	1,016.0	33	1,049.0
Indiana	908.0	706.0	88	996.0
Ohio	538.0	314.0	0	538.0
Kansas	491.5	436.5	20	511.5
Wisconsin	498.0	498.0	0	498.0
Texas	250.0	250.0	115	365.0
North Dakota	353.0	343.0	0	353.0
Michigan	265.0	215.0	5	270.0
Missouri	261.0	261.0	0	261.0
California	194.5	39.5	50	244.5
Tennessee	177.0	177.0	38	215.0
Georgia	100.4	100.4	100	200.4
New York	164.0	50.0	0	164.0
Oregon	148.0	40.0	0	148.0
Colorado	125.0	125.0	0	125.0
Pennsylvania	0	0	110	110.0
Virginia	0	0	65	65.0
North Carolina	0	0	60	60.0
Arizona	55.0	55.0	0	55.0
Idaho	54.0	54.0	0	54.0
Mississippi	54.0	54.0	0	54.0
Kentucky	35.4	35.4	0	35.4
New Mexico	30.0	0	0	30.0
Wyoming	6.5	6.5	0	6.5
Louisiana	1.5	1.5	0	1.5
Total	13,028.4	11,877.4	1,432	14,460.4

*Source: Renewable Fuels Association, January 2010*

# OPPORTUNITY

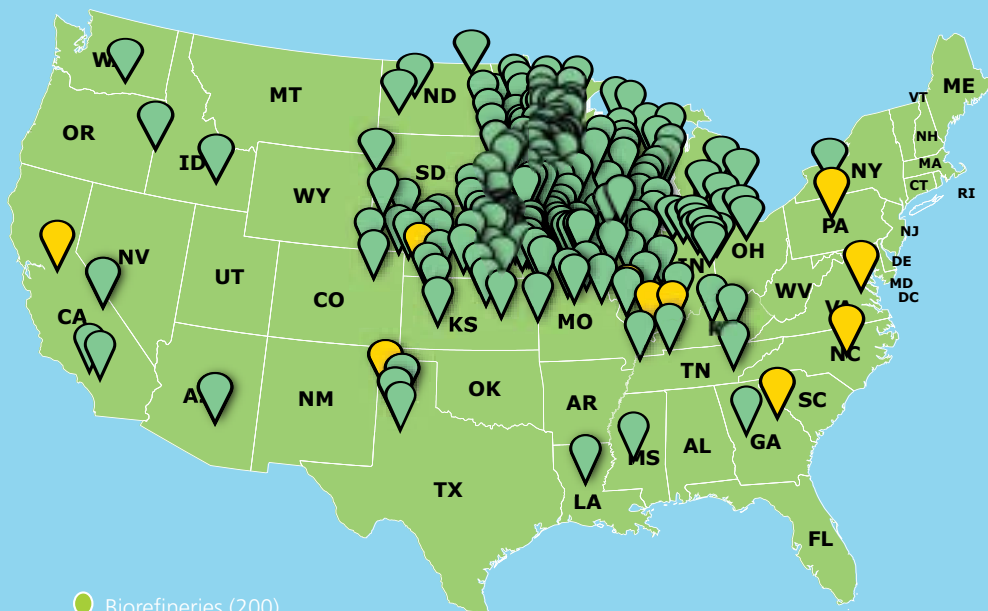
## HISTORIC U.S. FUEL ETHANOL PRODUCTION

### RECENT ETHANOL INDUSTRY EXPANSIONS

	Jan 2000	Jan 2001	Jan 2002	Jan 2003	Jan 2004	Jan 2005	Jan 2006	Jan 2007	Jan 2008	Jan 2009	Jan 2010
Biorefineries Online	54	56	61	68	72	81	95	110	139	170	189*
Capacity (mgy)	1,748.7	1,921.9	2,347.3	2,706.8	3,100.8	3,643.7	4,336.4	5,493.4	7,888.4	10,569.4	11,877.4

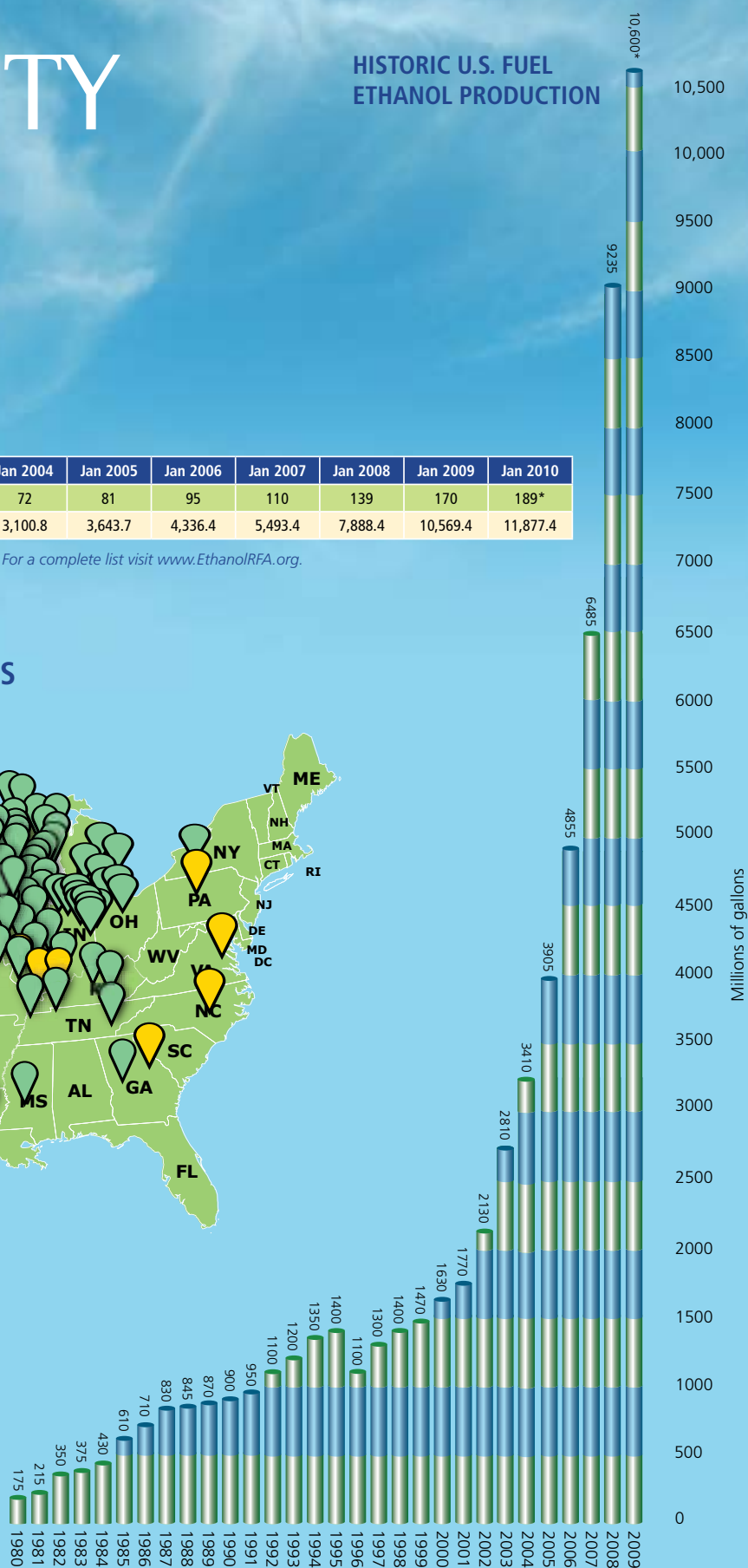
\* This figure represents operating ethanol biorefineries as of January 2010. For a complete list visit [www.EthanolRFA.org](http://www.EthanolRFA.org).

### U.S. ETHANOL BIOREFINERY LOCATIONS



- Biorefineries (200)
- Biorefineries under construction (11)

Source: Renewable Fuels Association, January 2010



Source: Renewable Fuels Association, January 2010

\*Estimated



# Expanding Economic Opportunity

No industry was immune to the economic collapse felt the world over in 2009. Recent rapid growth in ethanol capacity was replaced by more tempered growth as frozen credit markets and volatile commodity markets forced some ethanol producers to make difficult decisions.

Despite economic challenges, the U.S. ethanol industry continued to expand and so too did the economic opportunities being presented to Americans all over the country.

In 2009, the production of an estimated 10.6 billion gallons of ethanol helped support nearly 400,000 jobs in all sectors of the economy. America's ethanol producers also provided benefits to the nation's Gross Domestic Product (GDP), adding \$53.3 billion dollars. This economic impact and job creation helped to raise individual household incomes by \$16 billion dollars.

In addition, the ethanol industry more than paid for itself in 2009. The combination of increased GDP and higher household income generated an estimated \$8.4 billion in tax revenue for the Federal government and nearly \$7.5 billion of additional tax revenue for State and Local governments. The estimated cost of the two major Federal incentives in 2009, the Volumetric Ethanol Excise Tax Credit (VEETC) and ethanol Small Producer Credit, totaled \$5.0 billion. Consequently, the ethanol industry *generated a surplus of \$3.4 billion* for the Federal treasury.

The economic benefits resulting from the production and use of domestic, renewable ethanol improve America's trade balance and our ability to invest here at home. The production and use of 10.6 billion gallons of ethanol in 2009 reduced demand for imported oil by 364 million barrels, at a savings of \$21.3 billion. Such a volume represents 10 months of oil imports from Venezuela and money that can be used to invest in domestic industries creating jobs in the U.S.



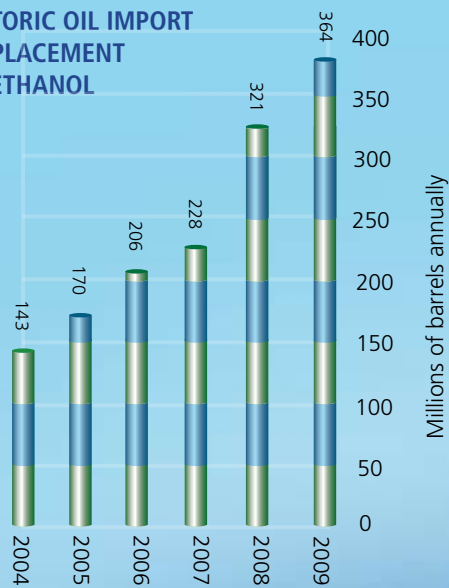
Note: All economic data from "Contributions of the Ethanol Industry to the Economy of the United States," LECG, LLC. February 2010.



*In 2009, the production of an estimated 10.6 billion gallons of ethanol helped support nearly 400,000 jobs in all sectors of the economy.*

*Source: "Contribution of the Ethanol Industry to the Economy of the United States," LECG, LLC, February 2010*

## HISTORIC OIL IMPORT DISPLACEMENT BY ETHANOL



Source: LECG, LLC.

## FOOD PRICES: ENERGY IN THE DRIVER'S SEAT

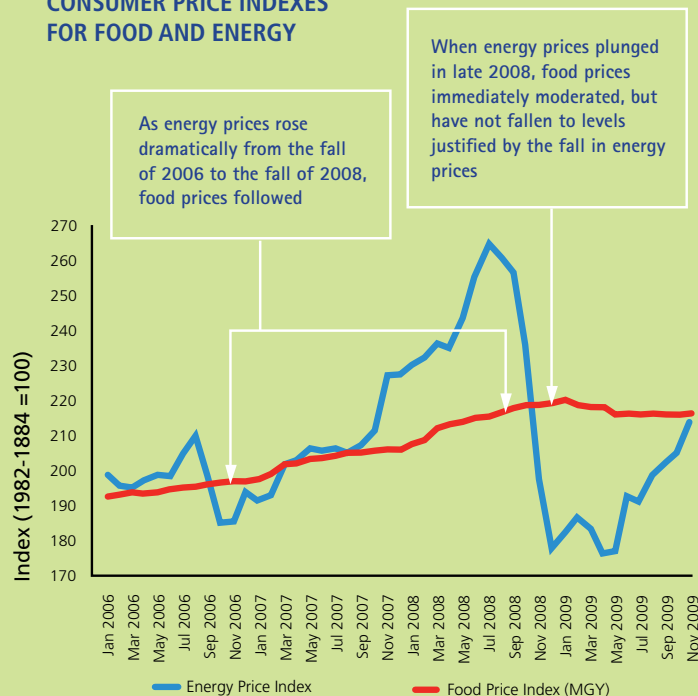
Ethanol production has long been plagued by the falsehood that using corn to produce ethanol will result in increases in retail food prices. As numerous academics have pointed out, the real driver has always been energy prices.

- A Texas A&M study in 2008 concluded, "...underlying force driving changes in the agricultural industry, along with the economy as a whole, is overall higher energy costs, evidenced by \$100 per barrel oil."
- As far back as 2007, economists were noting that a 33% increase in energy prices would raise food prices by up to 0.9%. A similar rise in corn prices would raise food prices by up to 0.3%.<sup>1</sup>

The Department of Agriculture estimates that just \$0.19 of every food dollar spent goes for food inputs like grains. The USDA notes that a 50% increase in corn prices only raises the value of corn in a 12.9 ounce box of corn flakes by less than \$0.02, or 0.5% the price of the corn flakes.

When the price of energy soared in 2006, the price of food followed. When energy prices collapsed in 2008, food prices moderated, but as is always the case, they did not fall. Meanwhile, U.S. ethanol production has continued to increase. Facts can be stickier things than even food prices.

## CONSUMER PRICE INDEXES FOR FOOD AND ENERGY



Source: Consumer Price Index

[1] "The Relative Impact of Corn and Energy Prices in the Grocery Aisle," LECG, LLC. June 2007

# A Lasting Partnership with Agriculture

Agriculture has long been the cornerstone of America's emerging biofuels industry. Rightfully, it remains so today. Ethanol has provided a new market for farmers' grain, spurring them to improve efficiencies and increase yields.

In 2009, ethanol biorefineries converted 3.8 billion bushels of corn into an estimated 10.6 billion gallons of ethanol and 30.5 million metric tons of high-value livestock feed, distillers grains and corn gluten feed and meal. In the 2008/2009 USDA marketing year, ethanol represented 30% of gross corn use. But when the contribution of feed co-products is accounted for (1/3 of every bushel of corn used for ethanol is returned to the feed market), the net consumption of corn by U.S. ethanol production is just 21%. The 30.5 million metric tons of feed generated by the industry in 2009 is equivalent to the total amount of grain fed to cattle in the nation's feedlots.

Using virtually the same acres as they did two generations ago, America's corn farmers produced a record yield (165.2 bushels per acre) and the highest crop on record (13.2 billion bushels) in 2009. USDA projects 4.2 billion bushels will be used on a gross basis to produce approximately 11.75 billion gallons of ethanol and 33 million metric tons of feed in the 2009/2010 marketing year.

Despite getting the lion's share of attention, beef cattle aren't the only animals benefiting from a diet supplemented with high protein, nutrient-rich distillers grains. Dairy cattle, swine and poultry industries are utilizing more distillers grains to displace some of their need for corn and soybean meal. Distillers grains are even finding their way into the diets of sheep, goats, and farm-raised catfish.

Internationally, distillers grains are gaining widespread acceptance as a high quality livestock feed component. Markets in Asia, Europe, and elsewhere are opening their doors to distillers grains, creating a market for approximately 15% of all distillers grains produced today, and allowing America to continue to keep its exports of corn and other food and feed products at historic levels.

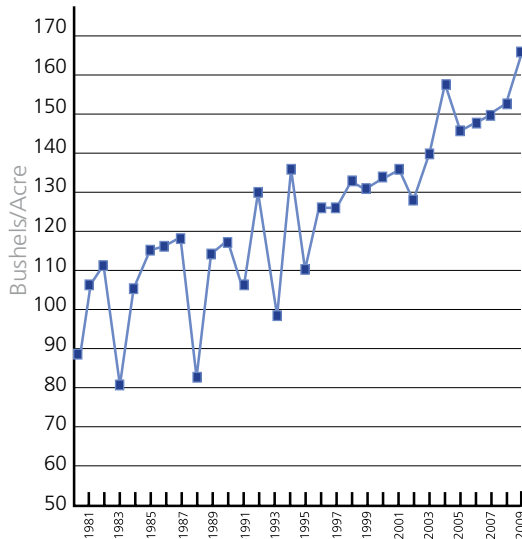


*The 30.5 million metric tons of feed generated by the ethanol industry in 2009 is equivalent to the total amount of grain fed to cattle in the nation's feedlots.*



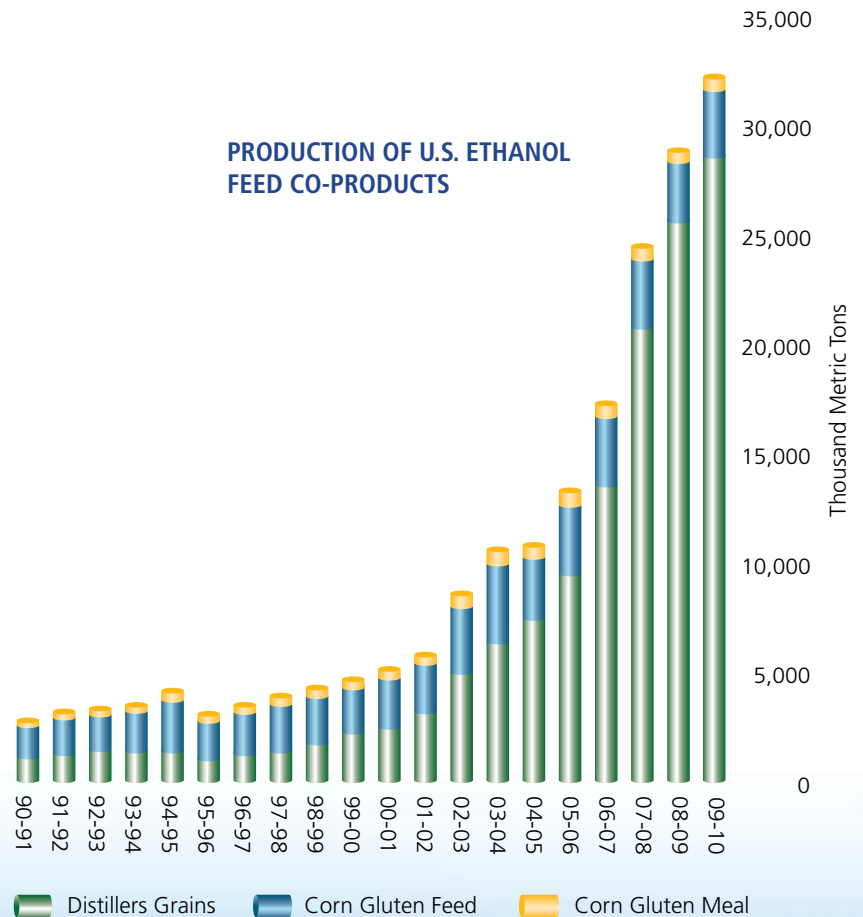


**U.S. AVERAGE CORN YIELD, 1980-2009**



Source: USDA

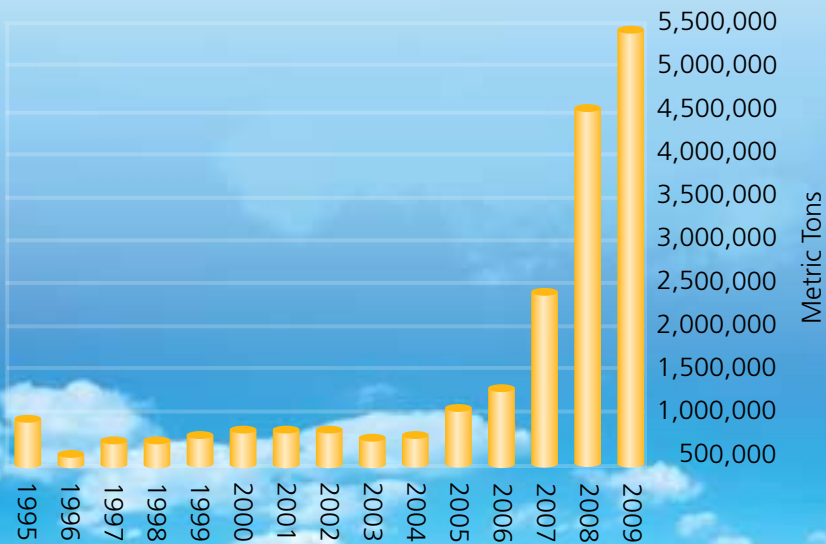
**PRODUCTION OF U.S. ETHANOL FEED CO-PRODUCTS**



Distillers Grains Corn Gluten Feed Corn Gluten Meal

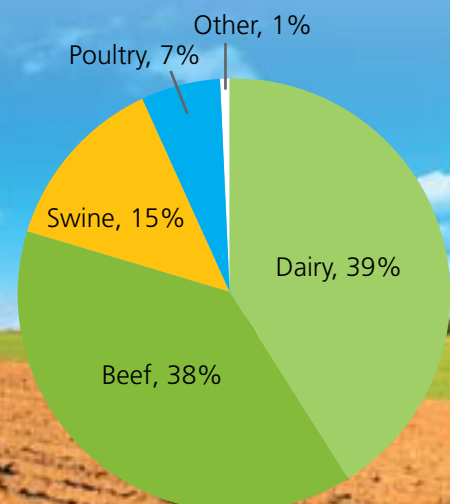
Source: RFA

**DISTILLERS GRAINS EXPORTS**



Source: USDA-FAS

**DISTILLERS GRAINS CONSUMPTION BY SPECIES, 2009**



Source: CHS and RFA

# Opportunity Born of Innovation



Perhaps nowhere else in the world is there an industry that is innovating as rapidly as America's ethanol industry. From improvements in existing facilities and technologies to the enlistment of new feedstocks for ethanol production, the modus operandi for this industry is continuous evolution.

## The Ethanol Continuum

The evolution of American ethanol is one of perpetual motion rather than individual dramatic breakthroughs. Existing ethanol biorefineries operate in a constant state of change, ever-vigilant for new technologies that will improve their process and their profits.

In this decade alone, technologies such as fractionation, low heat fermentation, methane capture from landfills and biomass gasification have reduced the amount of fossil energy needed to produce ethanol and distillers grains. Today, most plants require approximately 30,000 BTUs to produce a gallon of ethanol containing 77,000 BTUs. Some facilities are reporting energy needs of less than 28,000 BTUs per gallon.

Additionally, the use of pre-treated or "gray water" and other efficiencies are dramatically reducing the need for fresh water in ethanol production. Plants in North Dakota and Kansas, for example, get a large percentage of their water needs from local municipalities' water treatment facilities.

Efficiency gains are helping ethanol producers make more sustainable use of natural resources as well as improve ethanol yields and company bottom lines. So too are the development of new co-products. A host of new technologies allow ethanol producers to capture additional value by adding corn oil, recoverable carbon dioxide, corn syrup, bio-based chemicals, and other co-products to their traditional output of feed and fuel. These new co-products are opening up markets to allow ethanol producers to increase their displacement rates for petroleum, be it the use of bio-based chemicals to make plastics or corn oil to make biodiesel.

## Advanced Biofuels

The nature of ethanol production in the U.S. is not one of singular mind or vision. While existing biorefineries continue to improve upon their processes, they are also joining with next generation technology companies to bring cellulosic and other advanced biofuels to market.

No fewer than 28 advanced biofuel companies are currently developing the much-needed technologies that will greatly expand ethanol production to meet future energy demand and the requirements of the Renewable Fuels Standard. All told, the facilities under development represent more than 170 million gallons of production with each planning massive expansions following initial commercialization. When realized, many of these cellulosic and advanced biofuel technologies hold the promise to reduce greenhouse gas emissions by nearly 100 percent compared to gasoline, provide tens of billions of gallons of additional supply, and employ tens of thousands of Americans in fields such as chemistry, engineering, and business management.

Examples of the progress being made are as diverse as the evolving ethanol industry itself. Range Fuels, a Denver-based company, is currently constructing a biorefinery in Georgia that will turn wood waste products into ethanol. BlueFire Ethanol, a southern California company, is looking to turn the organic matter in municipal solid waste into ethanol. Likewise, companies like Verenium Corp., ZeaChem Inc., Coskata Inc., Oteros, Iogen Corp., Enerkem Corp., and countless others are achieving breakthroughs each day that will make advanced biofuels a reality.

Existing ethanol producers are also contributing. Abengoa Bioenergy is developing a grain and cellulose facility in western Kansas. In fact, just about every existing ethanol producer is looking to new feedstocks to increase their ability to produce fuel ethanol.

This kind of innovation is leading to previously dreamed about opportunities.



*More than two dozen advanced biofuel projects are in development with a combined projected production capacity of 170 million gallons per year, with each planning massive expansions upon commercialization.*

# U.S. CELLULOSIC ETHANOL PROJECTS UNDER DEVELOPMENT AND CONSTRUCTION

## 1. ABENGOA BIOENERGY CORP.

Cornstover, wheat straw, milo stubble, switchgrass and other biomass.

## 2. ABENGOA BIOENERGY CORP.

## 3. AE BIOFUELS

Switchgrass, grass seed, grass straw and corn stalks.

## 4. BLUEFIRE ETHANOL

Green waste, wood waste, and other cellulosic urban wastes.

## 5. BLUEFIRE

## 6. CALIFORNIA ETHANOL + POWER, LLC

Local Imperial Valley grown sugarcane facility powered by sugarcane bagasse.

## 7. COSKATA, INC.

Any carbon-based feedstock, including biomass, municipal solid waste, bagasse, and other agricultural waste.

## 8. DUPONT DANISCO CELLULOSIC ETHANOL LLC

Switchgrass, corn stover and corn cobs.

## 9. ECOFIN, LLC

Corn cobs.

## 10. FLAMBEAU RIVER BIOFUELS LLC

Softwood chips, wood, and forest residues.

## 11. ICM, INC.

Switchgrass, forage, sorghum, stover.

## 12. IOGEN CORP.

Agricultural residues including wheat straw, barley straw, corn stover, switchgrass and rice straw.

## 13. KL ENERGY CORP.

Softwood, waste wood, including cardboard and paper.

## 14. LIGNOL INNOVATIONS

Woody biomass, agricultural residues, hardwood and softwood.

## 15. MASCOMA CORP.

Lignocellulosic biomass, including switchgrass, paper sludge, and wood chips.

## 16. MASCOMA

## 17. NEWPAGE CORP.

Woody biomass, mill residues.

## 18. NEW PLANET ENERGY, LLC

Municipal solid waste (MSW); unrecyclable paper; construction & demolition debris; tree, yard and vegetative waste; and energy crops.

## 19. PACIFIC ETHANOL, INC.

Wheat straw, stover, and poplar residuals.

## 20. POET, LLC

Corn fiber, corn cobs and corn stalks.

## 21. POET, LLC

## 22. QTEROS

Plant material.

## 23. RANGE FUELS

Wood residues and wood-based energy crops, grasses and corn stover.

## 24. RSE PULP & CHEMICAL LLC

Woodchips (mixed hardwood).

## 25. UNIVERSITY OF FLORIDA

Sugarcane bagasse and specially bred energy cane.

## 26. VERENIUM CORP.

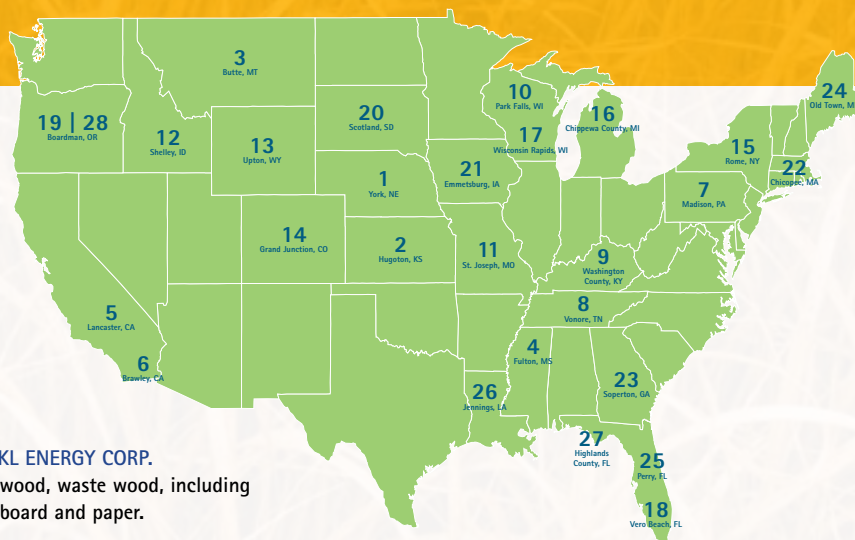
Sugarcane bagasse and specially bred energy cane.

## 27. VERENIUM CORP.

High-fiber sugarcane.

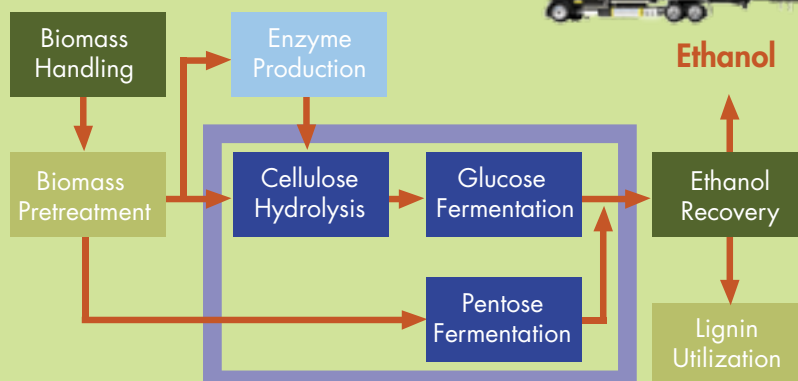
## 28. ZEACHEM INC.

Poplar trees, sugar, and wood chips.



## PRODUCTION OF ETHANOL FROM CELLULOSIC BIOMASS

One way to produce cellulosic ethanol is through enzymatic conversion (pictured at right). Other methods may include acid hydrolysis and gasification.



## U.S. FUEL ETHANOL INDUSTRY BIOREFINERIES AND CAPACITY

Company	Location	Feedstock	Nameplate Capacity (mg/y)	Operating Production (mg/y)	Under Construction/ Expansion Capacity (mg/y)
Abengoa Bioenergy Corp.	Colwich, KS	corn/milo	25	25	
	Mt. Vernon, IN	corn			88
	Madison, IL	corn			88
	Ravenna, NE	corn	88	88	
	York, NE	corn	55	55	
	Portales, NM	milo/corn	30	0	
Absolute Energy*	St. Ansgar, IA	corn	110	110	
ACE Ethanol, LLC	Stanley, WI	corn	41	41	
Adkins Energy, LLC*	Lena, IL	corn	40	40	
Advanced Bioenergy, LLC	Fairmont, NE	corn	100	100	
Ag Energy Resources, Inc.	Benton, IL	corn			5
AGP*	Hastings, NE	corn	52	52	
Agri-Energy, LLC*	Luverne, MN	corn	21	21	
AI-Corn Clean Fuel*	Claremont, MN	corn	42	42	
Alchem Ltd. LLP	Grafton, ND	corn	10	0	
AltraBiofuels Coshocton Ethanol, LLC	Coshocton, OH	corn	60	0	
AltraBiofuels Indiana, LLC	Cloverdale, IN	corn	92	0	
AltraBiofuels Phoenix Bio Industries, LLC	Goshen, CA	corn	31.5	31.5	
Amaizing Energy, LLC*	Denison, IA	corn	55	55	
Appomattox Bio Energy	Hopewell, VA	corn			65
Archer Daniels Midland (Total)			1,070	1,070	550
	Cedar Rapids, IA	corn			
	Clinton, IA	corn			
	Decatur, IL	corn			
	Peoria, IL	corn			
	Marshall, MN	corn			
	Wallhalla, ND	corn/barley			
	Columbus, NE	corn			
Arkalon Energy, LLC	Liberal, KS	corn	110	110	
Aventine Renewable Energy Holdings, Inc. (Total)			207	207	
	Pekin, IL	corn			
	Aurora, NE	corn			
Badger State Ethanol, LLC*	Monroe, WI	corn	48	48	
Big River Resources Galva, LLC	Galva, IL	corn	100	100	
Big River Resources West Burlington, LLC*	West Burlington, IA	corn	100	100	
Big River United Energy	Dyersville, IA	corn	110	0	
BioFuel Energy - Buffalo Lake Energy, LLC	Fairmont, MN	corn	115	115	
BioFuel Energy - Pioneer Trail Energy, LLC	Wood River, NE	corn	115	115	
Bional Clearfield	Clearfield, PA	corn			110
Blue Flint Ethanol	Underwood, ND	corn	50	50	
Bonanza Energy, LLC	Garden City, KS	corn/milo	55	55	
Bridgeport Ethanol	Bridgeport, NE	corn	54	54	
Bunge-Ergon Vicksburg	Vicksburg, MS	corn	54	54	
Bushmills Ethanol, Inc.*	Atwater, MN	corn	50	50	
Calgren Renewable Fuels, LLC	Pixley, CA	corn	55		
Carbon Green Bioenergy	Woodbury, MI	corn	50	0	
Cardinal Ethanol	Harrisville, IN	corn	100	100	
Cargill, Inc.	Eddyville, IA	corn	35	35	
Cargill, Inc.	Blair, NE	corn	85	85	
Cascade Grain	Clatskanie, OR	corn	108	0	
Castle Rock Renewable Fuels, LLC	Necedah, WI	corn	50	50	
Center Ethanol Company, LLC	Sauget, IL	corn	54	54	



Central Indiana Ethanol, LLC	Marion, IN	corn	40	40	
Central MN Ethanol Coop*	Little Falls, MN	corn	21.5	21.5	
Chief Ethanol	Hastings, NE	corn	62	62	
Chippewa Valley Ethanol Co.*	Benson, MN	corn	45	45	
Cilion	Keyes, CA	corn			50
Clean Burn Fuels, LLC	Raeford, NC	corn			60
Commonwealth Agri-Energy, LLC*	Hopkinsville, KY	corn	33	33	
Corn Plus, LLP*	Winnebago, MN	corn	44	44	
Corn, LP	Goldfield, IA	corn	60	60	
Cornhusker Energy Lexington, LLC	Lexington, NE	corn	40	40	
Dakota Ethanol, LLC*	Wentworth, SD	corn	50	50	
DENCO, LLC	Morris, MN	corn	24	0	
Didion Ethanol	Cambria, WI	corn	40	40	
E Caruso (Goodland Energy Center)	Goodland, KS	corn			20
E Energy Adams, LLC	Adams, NE	corn	50	50	
E3 Biofuels	Mead, NE	corn	25	0	
East Kansas Agri-Energy, LLC*	Garnett, KS	corn	35	35	
ESE Alcohol Inc.	Leoti, KS	seed corn	1.5	1.5	
Front Range Energy, LLC	Windsor, CO	corn	40	40	
Gateway Ethanol	Pratt, KS	corn	55	0	
Glacial Lakes Energy, LLC - Mina	Mina, SD	corn	107	107	
Glacial Lakes Energy, LLC - Watertown*	Watertown, SD	corn	100	100	
Global Ethanol, LLC	Lakota, IA	corn	98	98	
Great Lakes Ethanol (Global Ethanol)	Riga, MI	corn	57	57	
Golden Cheese Company of California	Corona, CA	cheese whey	5	5	
Golden Grain Energy, LLC*	Mason City, IA	corn	115	115	
Golden Triangle Energy, LLC*	Craig, MO	corn	20	20	
Grain Processing Corp.	Muscatine, IA	corn	20	20	
Granite Falls Energy, LLC*	Granite Falls, MN	corn	52	52	
Greater Ohio Ethanol, LLC	Lima, OH	corn	54	0	
Green Plains Renewable Energy	Shenandoah, IA	corn	55	55	
Green Plains Renewable Energy	Obion, TN	corn	110	110	
Green Plains Renewable Energy	Bluffton, IN	corn	110	110	
Green Plains Renewable Energy	Superior, IA	corn	55	55	
Green Plains Renewable Energy	Central City, NE	corn	100	100	
Green Plains Renewable Energy	Ord, NE	corn	50	50	
Guardian Energy	Janesville, MN	corn	110	110	
Hankinson Renewable Energy, LLC	Hankinson, ND	corn	110	110	
Hawkeye Renewables, LLC	Fairbank, IA	corn	110	110	
Hawkeye Renewables, LLC	Iowa Falls, IA	corn	90	90	
Hawkeye Renewables, LLC	Menlo, IA	corn	110	110	
Hawkeye Renewables, LLC	Shell Rock, IA	corn	110	110	
Heartland Corn Products*	Winthrop, MN	corn	100	100	
Heartland Grain Fuels, LP	Huron, SD	corn	32	32	33
Heartland Grain Fuels, LP	Aberdeen, SD	corn	50	50	
Heron Lake BioEnergy, LLC	Heron Lake, MN	corn	50	50	
Highwater Ethanol	Lamberton, MN	corn	55	55	
Homeland Energy Solutions	New Hampton, IA	corn	100	100	
Husker Ag, LLC*	Plainview, NE	corn	75	75	
Idaho Ethanol Processing, LLC	Meridian, ID	potato waste	4	4	
Illinois River Energy, LLC (GTL Resource)	Rochelle, IL	corn	100	100	
Iroquois Bio-Energy Company, LLC	Rensselaer, IN	corn	40	40	
KAAPA Ethanol, LLC*	Minden, NE	corn	40	40	
Kansas Ethanol, LLC	Lyons, KS	corn	55	55	
KL Energy Corp.	Upton, WY	wood waste	1.5	1.5	
Land O' Lakes*	Melrose, MN	cheese whey	2.6	2.6	

Louis Dreyfus Commodities	Grand Junction, IA	corn	100	100	
Louis Dreyfus Commodities	Norfolk, NE	corn	45	45	
Levelland/Hockley County Ethanol, LLC	Levelland, TX	corn	40	40	
Lifeline Foods, LLC	St. Joseph, MO	corn	40	40	
Lincolnland Agri-Energy, LLC*	Palestine, IL	corn	48	48	
Lincolnway Energy, LLC*	Nevada, IA	corn	55	55	
Little Sioux Corn Processors, LLC*	Marcus, IA	corn	92	92	
Marquis Energy, LLC	Hennepin, IL	corn	100	100	
Marysville Ethanol, LLC	Marysville, MI	corn	50	50	
Merrick & Company	Aurora, CO	waste beer	3	3	
Mid America Agri Products/Horizon	Cambridge, NE	corn	44		
Mid America Agri Products/Wheatland	Madrid, NE	corn	44	44	
Mid-Missouri Energy, Inc.*	Malta Bend, MO	corn	50	50	
Midwest Renewable Energy, LLC	Sutherland, NE	corn	25	25	
Minnesota Energy*	Buffalo Lake, MN	corn	18	18	
NEDAK Ethanol	Atkinson, NE	corn	44	44	
Nesika Energy, LLC	Scandia, KS	corn	10	10	
New Energy Corp.	South Bend, IN	corn	102	102	
North Country Ethanol, LLC*	Rosholt, SD	corn	20	20	
NuGen Energy	Marion, SD	corn	110	110	
One Earth Energy	Gibson City, IL	corn	100	100	
Otter Tail Ag Enterprises	Fergus Falls, MN	corn	57.5	57.5	
Pacific Ethanol, Inc.	Madera, CA	corn	40	0	
Pacific Ethanol, Inc.	Stockton, CA	corn	60	0	
Pacific Ethanol, Inc.	Burley, ID	corn	50	0	
Pacific Ethanol, Inc.	Boardman, OR	corn	40	40	
Panda	Hereford, TX	corn/milo			115
Parallel Products	Rancho Cucamonga, CA	beverage waste			
Parallel Products	Louisville, KY	beverage waste	5.4	5.4	
Patriot Renewable Fuels, LLC	Annawan, IL	corn	100	100	
Penford Products	Cedar Rapids, IA	corn	45	45	
Pinal Energy, LLC	Maricopa, AZ	corn	55	55	
Pine Lake Corn Processors, LLC	Steamboat Rock, IA	corn	31	31	
Platinum Ethanol, LLC*	Arthur, IA	corn	110	110	
Plymouth Ethanol, LLC*	Merrill, IA	corn	50	50	
POET Biorefining - Alexandria	Alexandria, IN	corn	68	68	
POET Biorefining - Ashton	Ashton, IA	corn	56	56	
POET Biorefining - Big Stone	Big Stone City, SD	corn	79	79	
POET Biorefining - Bingham Lake	Bingham Lake, MN	corn	35	35	
POET Biorefining - Caro	Caro, MI	corn	53	53	5
POET Biorefining - Chancellor	Chancellor, SD	corn	110	110	
POET Biorefining - Coon Rapids	Coon Rapids, IA	corn	54	54	
POET Biorefining - Corning	Corning, IA	corn	65	65	
POET Biorefining - Emmetsburg	Emmetsburg, IA	corn	55	55	
POET Biorefining - Fostoria	Fostoria, OH	corn	68	68	
POET Biorefining - Glenville	Albert Lea, MN	corn	42	42	
POET Biorefining - Gowrie	Gowrie, IA	corn	69	69	
POET Biorefining - Hanlontown	Hanlontown, IA	corn	56	56	
POET Biorefining - Hudson	Hudson, SD	corn	56	56	
POET Biorefining - Jewell	Jewell, IA	corn	69	69	
POET Biorefining - Laddonia	Laddonia, MO	corn	50	50	
POET Biorefining - Lake Crystal	Lake Crystal, MN	corn	56	56	
POET Biorefining - Leipsic	Leipsic, OH	corn	68	68	
POET Biorefining - Macon	Macon, MO	corn	46	46	
POET Biorefining - Marion	Marion, OH	corn	68	68	
POET Biorefining - Mitchell	Mitchell, SD	corn	68	68	

POET Biorefining - North Manchester	North Manchester, IN	corn	68	68	
POET Biorefining - Portland	Portland, IN	corn	68	68	
POET Biorefining - Preston	Preston, MN	corn	46	46	
POET Biorefining - Groton	Groton, SD	corn	53	53	
Prairie Horizon Agri-Energy, LLC	Phillipsburg, KS	corn	40	40	
Quad-County Corn Processors*	Galva, IA	corn	30	30	
Range Fuels	Soperton, GA	wood and wood waste			100
Red Trail Energy, LLC	Richardton, ND	corn	50	50	
Redfield Energy, LLC*	Redfield, SD	corn	50	50	
Reeve Agri-Energy	Garden City, KS	corn/milo	12	12	
Renew Energy	Jefferson Junction, WI	corn	130	130	
Renova Energy	Torrington, WY	corn	5	5	
Riverland Biofuels	Canton, IL	corn	37	37	
Show Me Ethanol	Carrollton, MO	corn	55	55	
Siouxland Energy & Livestock Coop*	Sioux Center, IA	corn	60	60	
Siouxland Ethanol, LLC	Jackson, NE	corn	50	50	
Southwest Georgia Ethanol, LLC	Mitchell Co., GA	corn	100	100	
Southwest Iowa Renewable Energy, LLC*	Council Bluffs, IA	corn	110	110	
Sterling Ethanol, LLC	Sterling, CO	corn	42	42	
Sunoco	Valeny, NY	corn	114	0	
Tate & Lyle	Ft. Dodge, IA	corn			105
Tate & Lyle	Loudon, TN	corn	67	67	38
Tharaldson Ethanol	Casselton, ND	corn	110	110	
The Andersons Albion Ethanol, LLC	Albion, MI	corn	55	55	
The Andersons Clymers Ethanol, LLC	Clymers, IN	corn	110	110	
The Andersons Marathon Ethanol, LLC	Greenville, OH	corn	110	110	
Trenton Agri Products, LLC	Trenton, NE	corn	40	40	
United Ethanol, LLC	Milton, WI	corn	52	52	
United WI Grain Producers, LLC*	Columbus, WI	corn	49	49	
Utica Energy, LLC	Oshkosh, WI	corn	48	48	
Valero Renewable Fuels	Albert City, IA	corn	110	110	
Valero Renewable Fuels	Fort Dodge, IA	corn	110	110	
Valero Renewable Fuels	Albion, NE	corn	110	110	
Valero Renewable Fuels	Aurora, SD	corn	120	120	
Valero Renewable Fuels	Charles City, IA	corn	110	110	
Valero Renewable Fuels	Welcome, MN	corn	110	110	
Valero Renewable Fuels	Hartley, IA	corn	110	110	
VeraSun Energy Corporation	Linden, IN	corn	110	0	
VeraSun Energy Corporation	Bloomington, OH	corn	110	0	
Verenium Corp.	Jennings, LA	Energy Cane/Sugar Cane Bagasse	1.5	1.5	
Western New York Energy, LLC	Medina, NY	corn	50	50	
Western Plains Energy, LLC*	Campus, KS	corn	45	45	
Western Wisconsin Renewable Energy, LLC*	Boyceville, WI	corn	40	40	
White Energy	Russell, KS	milo	48	48	
White Energy	Hereford, TX	corn/milo/wheat starch	100	100	
White Energy	Plainview, TX	corn	110	110	
Wind Gap Farms	Baconton, GA	brewery waste	0.4	0.4	
Xethanol BioFuels, LLC	Blairstown, IA	corn	0	0	
Yuma Ethanol	Yuma, CO	corn	40	40	
<b>U.S. CAPACITY TOTALS</b>			<b>13,028.4</b>	<b>11,877.4</b>	<b>1,432</b>

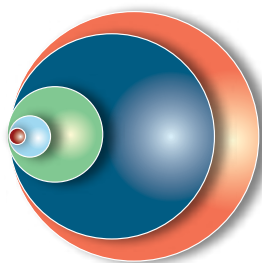
\* locally owned

Updated: January 2010

# Turning Adversity into Opportunity

Save for the economic crisis, perhaps no other issue quite dominated the ethanol landscape in 2009 as much as the flawed notion of international indirect land use change or ILUC. From the federal EPA to states all across the nation, the rush to find the perfect low carbon fuel is threatening to ignore the many good and getting better low carbon fuels currently available because of the highly suspect theory of ILUC.

The unsubstantiated argument for ILUC goes like this: if an acre of corn in Nebraska is used for ethanol production, then a corresponding acre elsewhere in the world must be brought into production. Ethanol critics assume this acre must come from virgin lands or cleared forests which result in an initial large release of carbon.

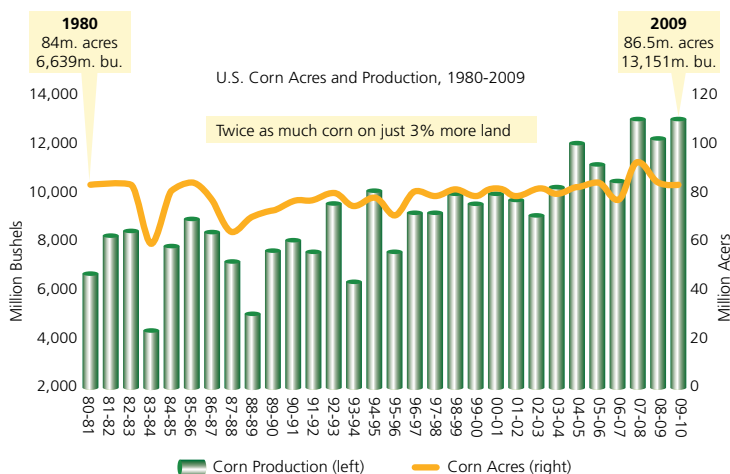


## 2009 U.S. ETHANOL PRODUCTION REQUIRED LESS THAN 1% OF GLOBAL CROPLAND (Million Acres)

- Global Arable Land and Permanent Crop Area (3,840 acres)
- Global Major Crop Area (2,145 acres)
- U.S. Major Crop Area (358 acres)
- U.S. Corn Area (86 acres)
- U.S. Corn Ethanol Area (Net Distillers Grains) (18 acres)

Sources: U.N. FAO, USDA

## INCREASED OUTPUT PER ACRE RELIEVES PRESSURE ON LAND RESOURCES



Source: USDA

## Farmers Proving ILUC Wrong

The scientific support is non-existent for ILUC theory, and in fact, demonstrates this theory to be almost entirely false. According to an analysis done by Air Resources, Inc., "... 15 [billion gallons per year] of corn ethanol production in 2015/16 should not result in new forest or grassland conversion in the U.S. or abroad."

Demonstrating this dynamic are the dramatic improvements in on-farm productivity allowing farmers to meet market demands through virtual acres. As the chart on this page shows, since 1980 American farmers have been able to produce twice as much on just 3 percent more acres due to the dramatic increases in yields per acre.



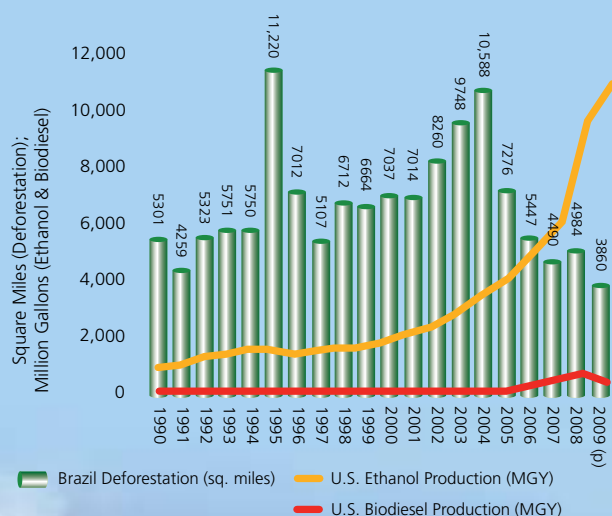


## Seeing the Forest Through the Trees

As American agricultural productivity is increasing and ethanol production rising, deforestation rates have been falling. In a November 2009 report from Brazil's National Institute for Space Research, it showed deforestation rates falling by 46 percent between August 2008 and August 2009. By comparison, U.S. ethanol production rose 12 percent over the same time period.

Most importantly, most if not all deforestation occurs as a direct result of illegal logging, cattle ranching, and subsistence farming – not U.S. ethanol production.

### U.S. BIOFUELS AND AMAZON DEFORESTATION: NO CORRELATION



Source: Brazil Ministry of Science and Technology

## A Level Playing Field

Perhaps most troubling about ILUC theory is the inequitable manner in which it has been applied. In virtually every analysis, ethanol is saddled with this unproven concept while petroleum fuels get a free pass. For example, little if any consideration is given to emissions resulting from the extraction of oil from tar sands. Environmental Defence Canada estimates this technique releases 300 percent more greenhouse gases than traditional petroleum development, including the destructing of Canada's boreal forests.

Likewise, other fuel technologies that may derive their power source from electricity, for example, all have indirect impacts that are not counted in the same way perceived land use changes are attributed to ethanol. This inherently unfair modeling tilts the balance in favor of imported fuels and wrongly penalizes a domestic industry.

As the science of ILUC and the debate about climate change, carbon, and direct versus indirect emissions matures, the continuing improvement of ethanol's carbon footprint will become increasingly important. In a world uniformly measured in carbon, American ethanol producers will find great opportunity.



# The Climate on Capitol Hill

For the ethanol industry, there is never a slow time in Washington, DC, or in state capitals across the country. If legislators aren't active, regulators will be. Often, it's both.

The past year saw a number of legislative and regulatory issues come before the industry. Unsubstantiated challenges to the industry's green credentials threatened to install roadblocks to increasing ethanol use, while still others sought to undermine the sound, scientific data supporting the use of ethanol in all vehicle platforms. In the coming year, many of these issues will be addressed.

## The Renewable Fuels Standard (RFS)

The RFS is the single largest driver of ethanol demand. Its goals of reduced oil consumption, economic opportunity, and environmental stewardship all hinge upon the successful implementation and execution of this forward-looking policy. Challenges to this success continue to come from those seeking to protect the status quo. The calculations of the Environmental Protection Agency regarding ethanol's greenhouse gas profile are clouded by the unsupported notion of ILUC discussed earlier.

## Extending the Blenders' Credit and Offsetting Tariff

The \$0.45 per gallon tax credit available to blenders of ethanol remains critical to increased ethanol use, and the corresponding reduction in oil consumption. The Volumetric Ethanol Excise Tax Credit (VEETC) provides a necessary compliment to the Renewable Fuels Standard to ensure cutting edge ethanol technologies are adopted, increasing productivity and improving efficiencies. Additionally, VEETC helps send the market signal for ethanol blending in markets that don't require ethanol either as a state mandate or to meet Clean Air Act requirements. The tax incentive is set to expire at the end of 2010. Extending the tax incentive would help ensure the continued evolution of ethanol production and expansion of the ethanol marketplace. On the flip side of the same coin, Congress should extend the corresponding tariff on ethanol imports also set to expire at the end of 2010. The tariff is meant simply to offset the value

of the tax credit, which is available to all sources of ethanol regardless of their origin, preventing American taxpayers from subsidizing ethanol production in countries like Brazil, which already provides ample government support and protectionist tariffs on ethanol imports.

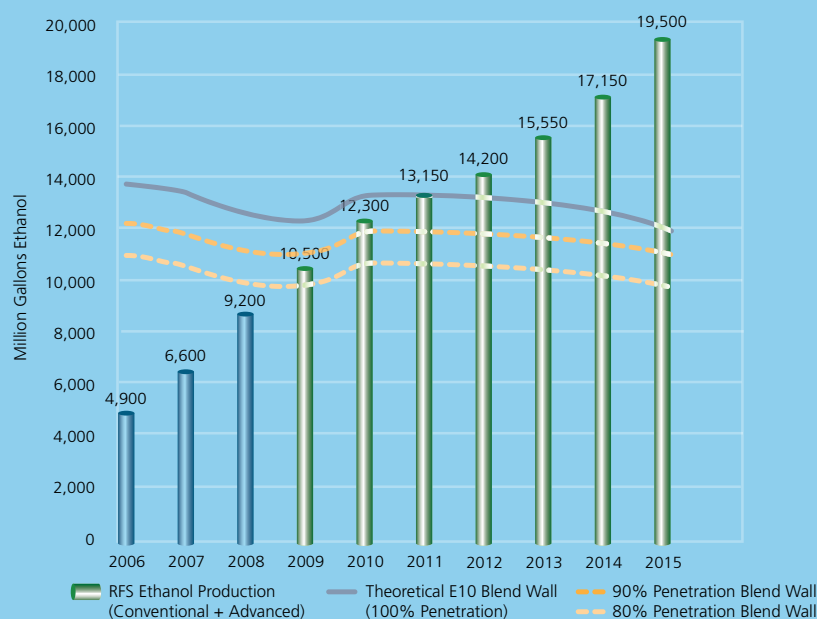
## NEW RENEWABLE FUELS STANDARD SCHEDULE (Billion Gallons Per Year)

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Renewable Biofuel	9.0	10.5	12.0	12.6	13.2	13.8	14.4	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Advanced Biofuel		0.6	0.95	1.35	2.0	2.75	3.75	5.5	7.25	9.0	11.0	13.0	15.0	18.0	21.0
Cellulosic Biofuel			0.1	0.25	0.5	1.0	1.75	3.0	4.25	5.5	7.0	8.5	10.5	13.5	16.0
Biomass-based Diesel		0.5	0.65	0.8	1.0										
Undifferentiated Advanced Biofuel		0.1	0.2	0.3	0.5	1.75	2.0	2.5	3.0	3.5	4.0	4.5	4.5	4.5	5.0
Total RFS	9.0	11.1	12.95	13.95	15.2	16.55	18.15	20.5	22.25	24.0	26.0	28.0	30.0	33.0	36.0

## Breaking Through the Blend Wall

The EPA has suggested that it might be ready to rule on the industry's request to increase ethanol content allowed in gasoline from 10% to 15% by mid 2010. While EPA's announcement of the delay (it was to rule by December 1, 2009) spoke positively about E15, it also contained some troublesome aspects. Chiefly, EPA's apparent path is to limit E15 blends to 2001 and newer vehicles. Such a restriction could effectively eliminate 40% or more of the market and lead to potential confusion among consumers and gasoline retailers alike. EPA needs to look at making this a truly full waiver, rather than bifurcating the vehicle market. In addition, EPA still has the authority to immediately approve an intermediate blend of 12%. The approval of E12 would lead to some immediate breathing room in the market while the issues surrounding the E15 waiver are resolved.

### THE E10 BLEND WALL



Source: Renewable Fuels Association, January 2010

## In the States

In 2009, the industry battled the state of California as it sought to penalize ethanol in its adoption of a state low carbon fuel standard (LCFS). Relying on the unproven theory of ILUC, the state's Air Resources Board proposed an LCFS that will effectively shut out grain-based ethanol from outside California in the coming years, just as the state is allowing for the use of 10% blends. Blocking the use of ethanol will make it difficult, if not impossible for the state's gasoline refiners to comply. The RFA, together with Growth Energy, has filed a lawsuit in federal district court. The lawsuit challenges the LCFS on the grounds it violates both the Supremacy Clause and the Commerce Clause of the U.S. Constitution.

Elsewhere, other states are watching California's effort closely as they look to implement an LCFS of their own. The industry, through the work of the RFA, has been intimately involved

in these processes and routinely pointed to the flawed, and perhaps illegal, manner in which California has gone about this task. Continuing to work with state regulators will be essential to fighting off similar destructive policies from spreading beyond California.

# Changing the Climate Change Debate

There exists no other fuel today that can effectively replace oil in the current fueling infrastructure and markedly reduce the environmental impact of America's vehicle fleet like ethanol. From growing the feedstock to producing the fuel and feed, ethanol dramatically reduces greenhouse gas emissions and petroleum needs compared to gasoline.

According to the EPA in analysis done to support the Renewable Fuels Standard, ethanol reduces greenhouse gas emissions 61% compared to gasoline when international indirect land use change penalties are removed. This mirrors work done by the University of Nebraska-Lincoln that found ethanol reduces greenhouse gases by up to 59%.

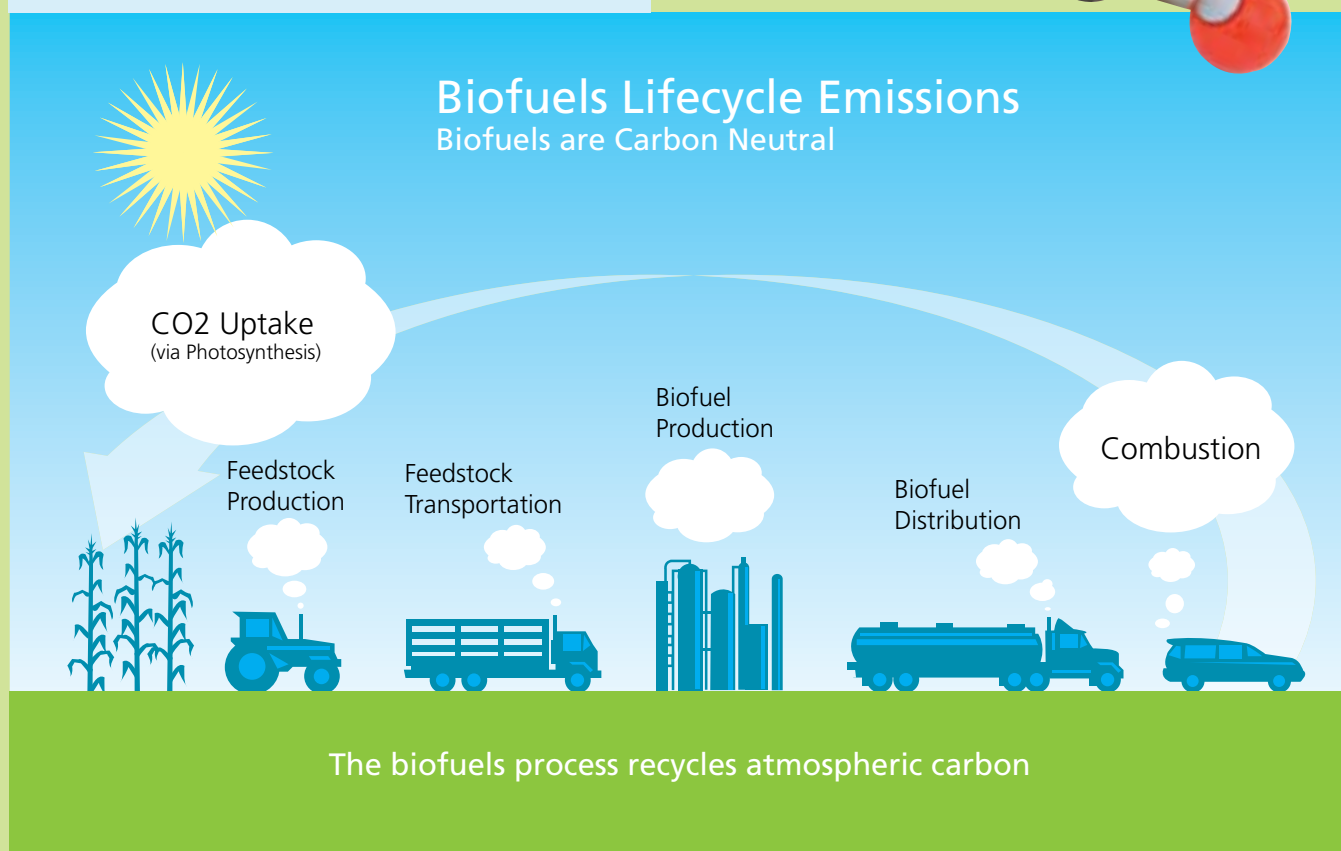
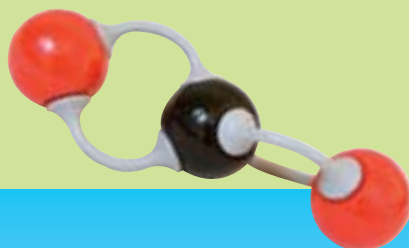
In addition, by its very nature ethanol reduces petroleum requirements for motor fuels. The University of California-Berkeley estimates that for every gallon of petroleum used in the lifecycle of ethanol production, nearly 20 gallons of ethanol will be produced.

The reason for this is simple. Ethanol production is part of the concurrent carbon cycle, while petroleum and other fossil fuels are the result of a carbon cycle no longer active. Ethanol harvests the energy contained in plants, much of it solar, and converts it to liquid fuel. All of the carbon emissions that result from producing the feedstock and burning the ethanol are absorbed by the corn and other plants as they grow the following year. Ethanol is a carbon neutral fuel.



*The use of 10.6 billion gallons of ethanol in 2009 reduced greenhouse gas emissions from vehicles by 16.5 million metric tons, the equivalent of removing 2.7 million vehicles from the road.*

*Source: GREET 1.8 Model*





# Ethanol and Water

The efficiencies adopted by ethanol producers have led to great improvements in the industry's carbon profile. Equally important have been the efficiencies gained in the use of water. Whether it's more efficient water technologies, the use of pre-treated water, or a combination, ethanol producers are dramatically reducing the amount of fresh water needed for ethanol production.

These gains stand in contrast with oil and other energy industries which are seeing their water profiles worsen. As easy sources of oil are exploited, more marginal sources of petroleum are needed. These sources, such as tar sands and oil shale, require far more water than conventional petroleum extraction and refining. According to the Pembina Institute, "For oil sands mining, approximately 12 barrels of water are needed to produce each barrel of bitumen in surface mined oil sands operations [12:1 ]." Additionally, the water is so toxic following this procedure that it must be held in enormous tailing ponds until it is deemed safe to release.



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*According to the Pembina Institute, "For oil sands mining, approximately 12 barrels of water are needed to produce each barrel of bitumen in surface mined oil sands operations."*

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Like many issues involving ethanol, water is one that is often taken out of context in order to vilify the industry. Again, like many issues, the facts are on the side of ethanol.

- Since 2001, ethanol producers have reduced water requirements by 26%, with many plants requiring less than 3 gallons of water to produce ethanol and distillers grains.
- Approximately 87% of all corn grown in the U.S. requires no irrigation. Nearly 97% of all corn used at ethanol biorefineries was not irrigated.
- By comparison, it takes 40 gallons of water to produce one cup of coffee; 4 gallons for a pound of hamburger; 11.6 gallons of water to produce a pound of chicken; and 300 million gallons to produce just one day's worth of the newspapers across the country.

Source: U.S. Geological Survey, National Renewable Energy Laboratory, [Waterfootprint.org](http://Waterfootprint.org)

# Growing Market Opportunities

Strong and forward-thinking policies have been enacted to help move America away from its addiction to oil. The success of these policies is important. But they cannot achieve success if the marketplace is closed to expanding ethanol use.

Since the enactment of the second Renewable Fuels Standard in 2007, the RFA has been very active at the state level, working with officials to allow for the increased blending of ethanol. Since 2007, ethanol use in the Southeast, South and West has grown substantially.

As is the case with any growing industry, more work remains. Additional regulatory hurdles are being overcome that will help to saturate the market and lay the groundwork for an increase to 15% blends.

## Higher Level Blends

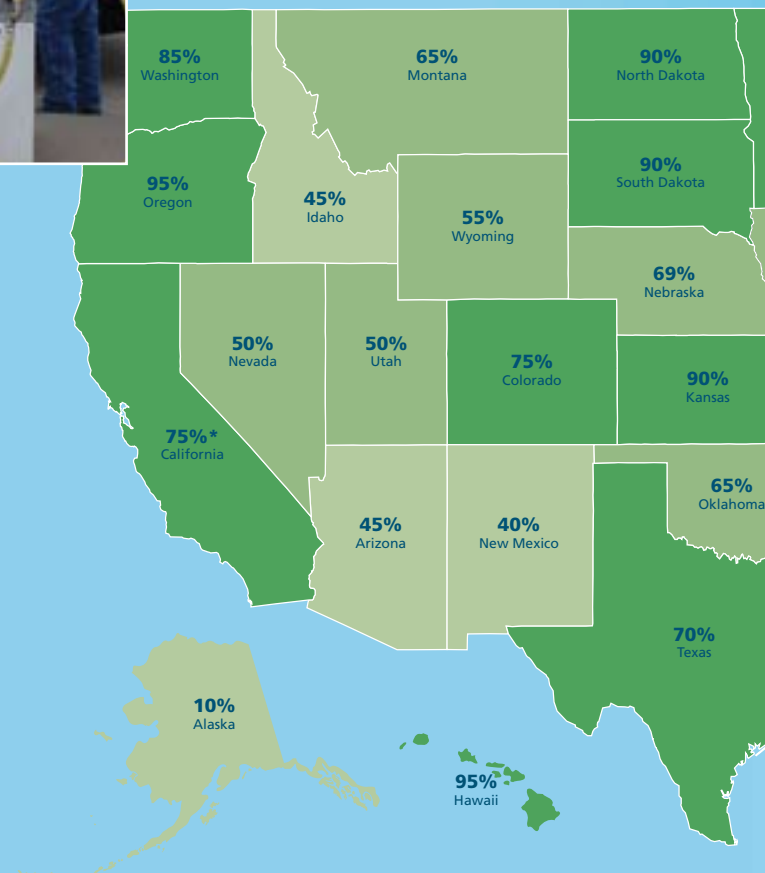
Ensuring that all 36 billion gallons of renewable fuel called for in 2022 by the RFS is used will require the expansion of much higher ethanol blends. Increasing the availability of blends such as E30, E50 and E85 as well as the ability of consumers to utilize them remains a work in progress.

More than 2,300 gas stations across the country offer a blend of ethanol greater than 10%, with nearly all of them offering E85. While the number of stations offering higher blends is increasing, it is still just a fraction of the 170,000 gas stations all across the country. Efforts to install this infrastructure, including increasing the presence of blender pumps able to offer a variety of ethanol blends, are currently underway with a goal to at least triple the availability of these blends in the next few years.

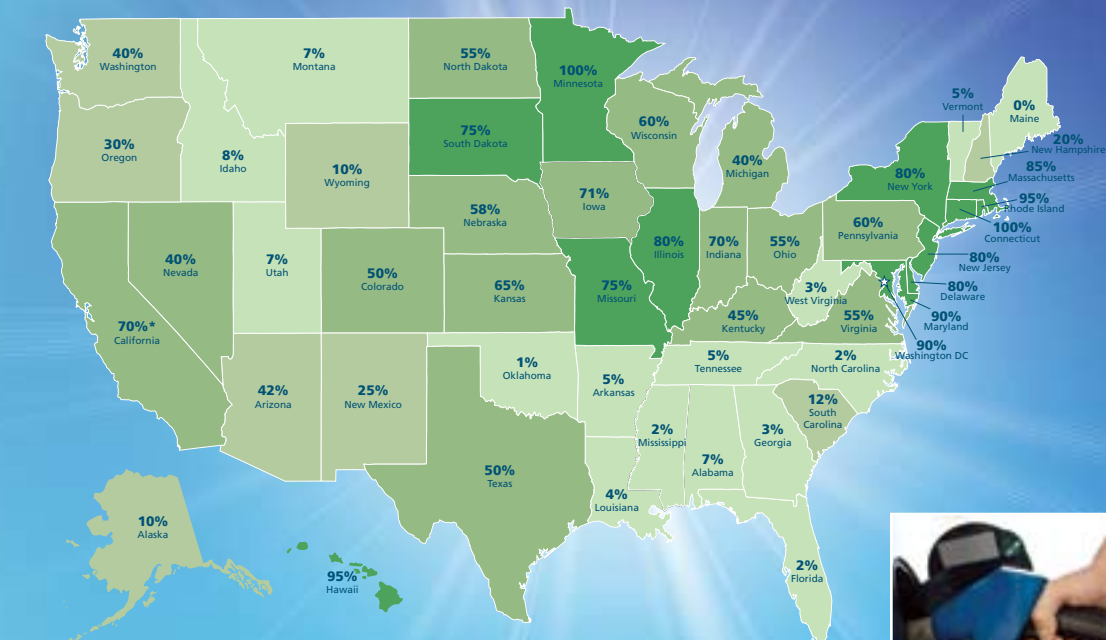
The other half of this equation requires consumers to have vehicles that can safely and effectively use higher blends.

Known as flex fuel vehicles (FFVs), these models are designed to operate on ethanol blends up to 85%. There are approximately 8 million FFVs in America today, out of a total vehicle fleet of 230 million vehicles. To their credit, automakers General Motors, Ford, and Chrysler have pledged to make half of all new vehicles coming off their assembly lines in 2012 and beyond FFVs. Still, their foreign counterparts have been slow to sell such models in the U.S., despite offering the vehicles in places like Brazil. Increasing the

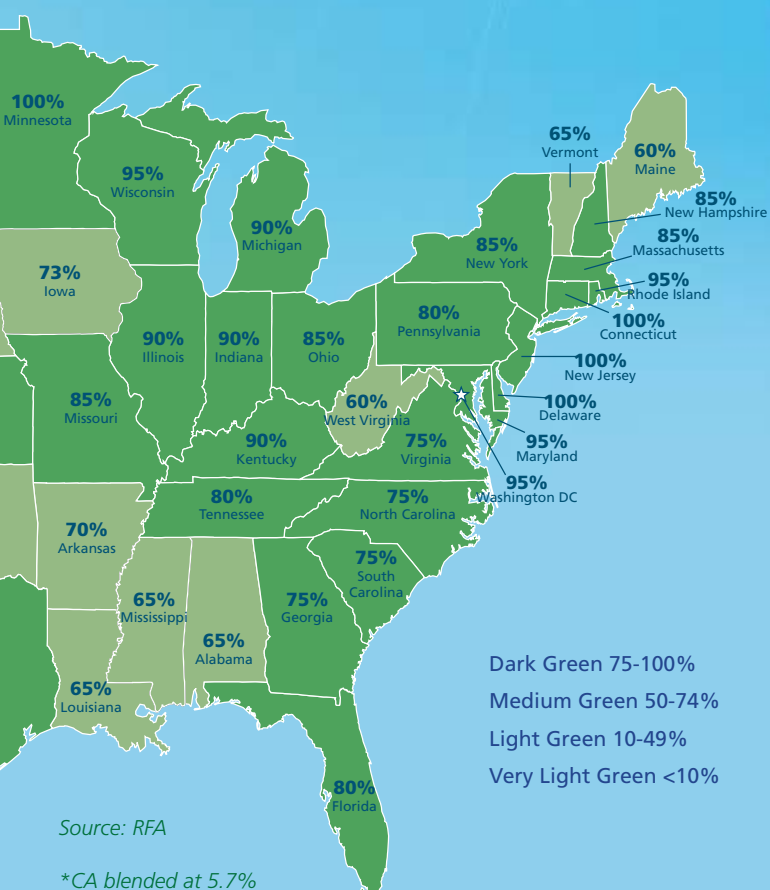
number of FFVs on the road is essential to increasing ethanol demand and may require sticks rather than carrots to force all automakers to produce more FFVs.



## E10 MARKET ESTIMATION 2007



## E10 MARKET ESTIMATION 2009



Source: RFA

\*CA blended at 5.7%

## To E12, E15, and Beyond

The EPA has delayed its decision on 15% ethanol blends until mid-to-late 2010 while it continues to study the impact of increased ethanol levels on vehicle engines. To date, all research has shown that blends of up to 20% ethanol are safe and effective for use in all vehicles, regardless of their vintage. Based on the science available, the industry is confident EPA will ultimately allow E15 and set the stage for potentially higher levels.

Unfortunately, EPA has failed to act on authority it already has to allow for the use of up to 12% ethanol blends. Based on statutory authority provided under the Clean Air Act and on previous fuel approvals, EPA could find E12 as "substantially similar" to other fuels in the market and allow for its use. This intermediate step would provide an additional two billion gallons of new demand while the full E15 process is exhausted. The RFA has clearly outlined this in its E12 Pathway document available at [www.EthanolRFA.org](http://www.EthanolRFA.org).

Ultimately, blends of 20% or more can and will need to be approved to ensure the success of the RFS and America's evolving biofuels industry.

# Global Expansion

The achievements witnessed in America's ethanol industry are not confined to our shores. In scores of nations across the globe, governments and industries are partnering to develop and expand biofuel production. Their goals, like those of the U.S., are to provide economic opportunity and energy security while attempting to do their part to address climate concerns. Their success speaks for itself.

In 2009, global ethanol production reached nearly 20 billion gallons (74 billion liters) in more than 40 countries on 6 continents. This represents nearly 400% growth since 2000.

Growing global biofuel production is not going unnoticed. The International Energy Agency (IEA) estimates that more than one million barrels of oil demand are displaced by worldwide biofuel production each day.

This impact has caught the attention of the world's leading oil producers. In February 2009, Saudi Arabian Oil Minister Ali Naimi lamented, "We must be mindful that efforts to rapidly promote alternatives could have a 'chilling effect' on investment in the oil sector." That is precisely the point.

## 2009 GLOBAL ETHANOL PRODUCTION (Millions of Gallons)

	Brazil	Canada	Colombia	China	India	Thailand	Australia	EU	Other	Total
2009	6577.89	290.59	83.21	541.55	91.67	435.20	56.80	1039.52	247.27	19534.99

Source: F.O. Lichts

## HISTORIC U.S. ETHANOL IMPORTS

	2002	2003	2004	2005	2006	2007	2008	2009
MGY	45.5	60.9	159.9	135.5	653.3	435.2	600.0	190*

Source: International Trade Commission, Renewable Fuels Association

\* Estimated





## Climate Change Creating Opportunity

Global biofuel production is about more than simply displacing oil. As countries seek consensus on how to address concerns about global warming, biofuels continue to emerge as a leading tool to effectively reduce increasing carbon emissions. According to a study by the Canadian research firm (S&T)<sup>2</sup> Consultants Inc., 2009 world biofuel production reduced greenhouse gas emissions by 123.5 million tons. That represents a 57% reduction from where levels would have been without biofuels. More specifically, world ethanol production of 20 billion gallons reduced emissions by 87.6 million tons.



## A Global Market Emerging?

For much of the world's ethanol industry history, the U.S. and European nations have been the sole market for ethanol imports. That may be changing. As demand in Asian nations grow and supply concerns hit Brazil, export markets for U.S. ethanol may be on the horizon. In fact, Brazilian Energy Minister Edison Lobao noted that U.S. imports into Brazil were "not out of the question," despite Brazil's 25% tariff on ethanol imports. Lobao went on to note Brazil would prefer an internal solution to its supply needs. That should be the goal of every nation – creating a domestic industry that adds value and satisfies demand.

## More Unites Than Divides

The importance of biofuels as a global commodity provides more that unites countries than divides them. Issues about trade and market access will always persist. But these issues pale by comparison to the issues of climate change, energy security, and economic opportunity in which all nations have a vested interest. By working together to share technologies and promote the broad use of renewable fuels, a collective global biofuels industry will not only survive but thrive.



**Global Renewable  
Fuels Alliance**

Recognizing the need for an international organization aimed at participating fully in the discussion of biofuels, the United States, Europe, and Canada formed the Global Renewable Fuels Alliance (GRFA) in February 2009. Since then, Argentina and 16 nations in southern Africa have lent their voice. All told, Alliance members represent over 65% of the global biofuels production from 44 countries. Through the development of new technologies and best practices, the Alliance members are committed to producing renewable fuels with the smallest possible carbon footprint.

More information on the activities of the GRFA can be found at [www.GlobalRFA.org](http://www.GlobalRFA.org).

# Creating Our Own Opportunity

Public policy achievements secured by the industry over the past three decades have built a strong foundation for current viability and long term success for the industry. While these policies remain fundamental, the industry must work to influence public opinion, inform consumers, and expand the market beyond the prescriptions of policy.

Responding to those needs, the industry has engaged in various activities designed to expand the acceptance and use of ethanol.

## Blend Your Own (BYO) Ethanol

Partnering with the American Coalition for Ethanol and numerous state corn grower associations, the RFA has engaged in an all-encompassing campaign aimed at expanding blender pump installation by 5,000 stations in the next three years. The concept behind the BYO Ethanol campaign is simple: By installing a blender pump, retail stations could offer any blend of ethanol their customers demanded without requiring multiple pumps. To that end, the campaign will provide retailers with all the necessary information they need to install the pumps and utilize the various incentives available.

## Helping Consumers Choose Ethanol

A consumer website was launched in July 2009 to provide an outlet for consumers to learn about ethanol in a jargon-free, non-acronym environment. Log on at [www.ChooseEthanol.com](http://www.ChooseEthanol.com)

## Public/Private Partnership to Educate America

The RFA was awarded a \$1.6M grant from the Department of Energy to help support alternative fuels education and outreach efforts.

The RFA partnered with other trade associations from the biodiesel, propane, natural gas and advanced vehicle technologies industries. This funding will be used to develop new curricula, conduct educational workshops and webinars, and organize other training activities across the country over the next two years.





## Navigating to Greater Ethanol Use

A chief challenge to increasing the use of higher level ethanol blends, like E85, is informing the public as to where such blends are available. Working through existing navigation platforms, the RFA has offered Points of Interest (POI) data applications for both TomTom and Garmin navigation devices. These applications will direct owners of flex fuel vehicles to the nearest gas station offering higher level blends in any state in the country. Utilizing data shared by the Department of Energy, these first of a kind applications will help increase ethanol use by showing consumers where they can fill up. The data and instructions for use are now available at [www.ChooseEthanol.com](http://www.ChooseEthanol.com).



## An American Legend Paired with America's Renewable Fuel

To reach consumers, outside the box thinking is often required. Such thought took America's ethanol industry into the heart of the American motorcycle community at the annual Sturgis motorcycle rally held in August in South Dakota. Working with the official campground of the rally, the Buffalo Chip, the RFA brought the message of ethanol's efficacy as a fuel and its importance to America's energy future to more than 10,000 motorcycle enthusiasts. As the blending of ethanol increases, communication with vehicle and engine communities beyond passenger cars will be critical to avoiding unnecessary confusion.

## Welcoming with Ethanol

Welcome Centers can be a welcome sight for many weary drivers seeking an opportunity to stretch their legs. They also provide an opportunity to inform a key demographic on the value of renewable fuels. Working with more than 30 states, the RFA has stocked over 300 Welcome Centers with consumer information on ethanol. These state-specific brochures include the benefits of ethanol, where to locate E85 and where to go for more information.

The story the ethanol industry has to tell is a good one. Through continued efforts like those highlighted above, the industry will continue to take our message to the public.



# Safety, Standards, and Specifications: Keeping

The safety of employees and the communities in which the ethanol industry operates has been and remains the number one concern of the industry. As the industry expands, more and more people will be coming into contact with ethanol for the first time. Whether it is the start up of a new biorefinery or the transportation and storage of ethanol, the first responders in communities all across the country are learning how to respond in the rare instance of an ethanol-related incident.

To better serve the first responder communities, and to ensure that ethanol industry members are properly prepared, the industry formed the Ethanol Emergency Response Coalition (EERC). The EERC is comprised of the RFA's Safety Committee, the International Association of Fire Chiefs, and various parties representing fuel distribution across the country.

The EERC has produced training videos and manuals that inform first responders on everything from what is ethanol to how best to fight a potential ethanol fire. This essential information is all available for free at [www.ethanolresponse.com](http://www.ethanolresponse.com).



## Riding the Rails

Ethanol constitutes the largest hazardous material by volume shipped on the rails. Recognizing this, the industry has partnered with those in the railroad and tanker truck industries to provide recommendations for the safe handling of ethanol. Working with TRANSCAER, the RFA has partnered with leading rail and tank car companies to provide hands-on training to employees responsible for the loading and unloading of ethanol. Even though better than 99.99% of all ethanol rail shipments arrive safely at their destination, RFA and TRANSCAER held a record number of ethanol specific training events in 2009. The industry is also working to ensure that those handling the grain receiving business at ethanol facilities are equipped to safely manage the grain to avoid fires and explosion.



# Ethanol Alive in the Marketplace

Much of the success of the industry is due in large part to the hard work of engineers, chemists and technicians who have spent countless hours working with those in the petroleum industry as well as auto mechanics and others to ensure ethanol's easy acceptance in the marketplace. An example of this ongoing effort is the fourth edition of the *Changes in Gasoline Manual*, available for free at [www.EthanolRFA.org](http://www.EthanolRFA.org), which has become the industry standard when it comes to understanding the properties and characteristics of ethanol-blended fuels. Additionally, the RFA routinely publishes guides and best practices documents on subjects ranging from ethanol quality to safety practices.

Through the Technical Committee of the RFA, the industry has had a seat at the table to influence specifications for fuels, provide technical support for optimum performance and lead the development for new fuel specifications, such as guidance for mid level ethanol fuel blends. Active participation by RFA members in organizations such as ASTM International, the International Organization for Standardization (ISO), the National Conference of Weights and Measures, as well as individual state fuel quality programs, has led to widespread and growing acceptance of ethanol as a reliable source of octane and a safe component in ethanol-gasoline blends.

With 2010 featuring promising increased ethanol production and greater blending at rates higher than 10%, the importance of the safety and technical work currently ongoing within the industry is second to none.







Since 1981, the Renewable Fuels Association (RFA) has been the authoritative voice of the ethanol industry. The RFA has an unequaled record of results through action, advocacy and analysis.

With the most experienced staff in the industry, the RFA is able to provide timely, comprehensive industry information to our members, Congress, federal and state government agencies, strategic partners, the media and other opinion-leader audiences.

The RFA has been the industry's most forceful advocate in expanding the market for ethanol. Just as important, we've worked to beat back challenges to ethanol progress from special interests seeking to maintain the fossil fuel status quo.

As the leading trade association for the U.S. ethanol industry, the RFA has won landmark legislative, regulatory, and tax policy victories that have provided for the success of the industry we see today. Here are a few of the most well-known victories:

- The Renewable Fuels Standard
- Volumetric Ethanol Excise Tax Credit
- The Small Ethanol Producer Tax Credit
- The Federal Reformulated Gasoline Program
- The Cellulose Tax Credit

In 2010, the RFA will be building upon these successes by focusing on:

- Extending the tax incentives for all sources of ethanol
- Extending the secondary tariff on imported ethanol
- Increasing ethanol blending to E15 and beyond
- Determining ethanol's carbon footprint in a fair and scientifically sound context

## RFA Committees

Within the association, the RFA has a host of committees that address issues ranging from blending and performance standards to safety concerns to the development of cellulosic ethanol technology. The committees include:

### Tax Policy Working Group

The Tax Policy Working Group was formed in an effort to identify and evaluate ethanol tax incentive proposals as well as formulate an industry-wide tax policy strategy that will encourage the continued expansion of the ethanol industry.

### Technical Committee

Accurate and reliable information regarding the production, blending, distribution, and performance of ethanol fuels can mean the difference between success and failure. The RFA Technical Committee is the industry's leading voice in developing industry standards in coordination with the American Society for Testing & Materials (ASTM) to ensure the seamless integration of ethanol fuels into the marketplace.

### Environment Committee

The RFA Environment Committee exists to examine and provide policy guidance on the myriad of environmental regulations ethanol biorefineries face. This guidance is extraordinarily valuable in helping familiarize new producers with environmental regulations relevant to the ethanol industry.

## Cellulose Committee

The foundation built by today's industry will lead to new, exciting breakthroughs in ethanol production technology. That is why the RFA Cellulose Committee stays on top of all policy and technical developments that will aid in the commercialization of cellulosic ethanol production. Cellulosic ethanol can help the industry achieve production levels beyond 15-20 billion gallons per year. Almost every ethanol producer represented by RFA is actively engaged in cellulose ethanol research and development, and commercialization.

## Co-Products Committee

Ethanol production is about more than just ethanol. Distillers grains, corn oil, and a host of other products are routinely part of ethanol operations. The RFA Co-Products Committee pursues issues relevant to ethanol co-products, including research, educational programs and regulations. Members of this committee provide reliable data regarding the production, distribution, trade and performance of co-products.

## Plant & Employee Safety Committee

Safety comes first. The RFA Safety Committee has been extraordinarily proactive, leading efforts to provide ethanol producers, transporters and first responders with the information and tools they need to protect their employees and the communities they serve. Working with federal, state and local governments as well as industry partners, this committee has brought much needed attention to hazardous material regulations and other safety regulations through programs such as the Ethanol Emergency Response Coalition (EERC) and the TRANSCAER initiative.

## Membership

RFA membership includes a broad cross-section of businesses and organizations dedicated to the expansion of the U.S. fuel ethanol industry.

### *Supporting Members enjoy:*

- Participation in Annual Membership meeting
- Industry alerts and issue briefs
- Access to Association publications and educational materials
- Reduced registration fee for National Ethanol Conference
- RFA SmartBrief

### *Prospective Producer and Associate Members enjoy all benefits of Supporting Members and additionally:*

- Weekly updates on regulatory, legislative, research and technical, market development and communication issues.
- Provide input on RFA policy, activities and priorities through attendance at Annual Membership meeting
- Networking opportunities with producer members
- Link on RFA web site
- Link to your company's press releases from RFA web site
- Access to Member Center section of RFA web site
- Quarterly reports on federal legislative and regulatory activity, as well as state legislation
- Committee participation

### *Producer Members receive all benefits of Prospective Producers, Associate and Supporting Members, while also enjoying unique benefits including:*

- Voting member of the RFA Board of Directors
- Participation in Association meetings and the development of policies
- Eligible to serve as a member of the Association's Executive Committee
- Timely and accurate legislative and regulatory updates, alerts and issue briefs
- State legislative activity summary
- Industry reports and studies

## RFA Prospective Producer Members

Advanced BioEnergy, LLC [www.advancedbioenergy.com](http://www.advancedbioenergy.com)  
BioEnergy International, LLC [www.bioenergyllc.com](http://www.bioenergyllc.com)  
BioFuel Energy, LLC [www.bfenergy.com](http://www.bfenergy.com)  
BlueFire Ethanol, Inc. [www.bluefireethanol.com](http://www.bluefireethanol.com)  
Bunge North America [www.bungenorthamerica.com](http://www.bungenorthamerica.com)  
Corn, LP [www.cornlp.com](http://www.cornlp.com)  
Coskata, Inc. [www.coskata.com](http://www.coskata.com)  
DuPont Danisco Cellulosic Ethanol [www.ddce.com](http://www.ddce.com)  
First United Ethanol, LLC [www.firstunitedethanol.com](http://www.firstunitedethanol.com)  
Heron Lake BioEnergy, LLC [www.heronlakebioenergy.com](http://www.heronlakebioenergy.com)  
INEOS New Planet BioEnergy, LLC [www.inpbioenergy.net](http://www.inpbioenergy.net)  
Iogen Corp. [www.ioegen.ca](http://www.ioegen.ca)  
Mid America Bio Energy & Commodities  
Osage Bio Energy [www.osagebioenergy.com](http://www.osagebioenergy.com)  
Penford Products Company [www.penx.com](http://www.penx.com)  
Permolex International LP [www.permolex.com](http://www.permolex.com)  
Range Fuels, Inc. [www.rangefuels.com](http://www.rangefuels.com)  
ZeaChem Inc. [www.zeachem.com](http://www.zeachem.com)

## RFA Supporting Members

Bemidji State University [www.bemidjistate.edu](http://www.bemidjistate.edu)  
Bismarck State College [www.bismarckstate.edu](http://www.bismarckstate.edu)  
Colorado Farm Bureau [www.colofb.com](http://www.colofb.com)  
Corn Marketing Program of Michigan [www.micorn.org](http://www.micorn.org)  
Distillers Grains Technology Council [www.distillersgrains.org](http://www.distillersgrains.org)  
Downstream Alternatives  
Ethanol Producers and Consumers [www.ethanolmt.org](http://www.ethanolmt.org)  
Illinois Corn Growers Association [www.ilcorn.org](http://www.ilcorn.org)  
Indiana Biofuels Alliance [www.inagribiz.org](http://www.inagribiz.org)  
Iowa State University [www.iastate.edu](http://www.iastate.edu)  
Jamestown/Stutsman Development Corp. [www.growingjamestown.com](http://www.growingjamestown.com)  
Kansas Association of Ethanol Processors [www.ethanolkansas.org](http://www.ethanolkansas.org)  
Maryland Grain Producers Utilization Board [www.marylandgrain.com](http://www.marylandgrain.com)  
Michigan State University - Department of Agricultural Economics  
[www.aec.msu.edu](http://www.aec.msu.edu)  
Mid-America Consultants International (MACI) [www.maci.coop](http://www.maci.coop)  
Minnesota Department of Agriculture [www.mda.state.mn.us](http://www.mda.state.mn.us)  
Mississippi State University - Department of Forestry [www.cfr.msstate.edu/](http://www.cfr.msstate.edu/)  
Missouri Corn Growers Association [www.mocorn.org](http://www.mocorn.org)  
Morton College  
National Corn-To-Ethanol Research Center [www.ethanolresearch.com](http://www.ethanolresearch.com)  
Nebraska Corn Board [www.nebraskacorn.org](http://www.nebraskacorn.org)  
Ohio Corn Marketing Program [www.ohiocorn.org](http://www.ohiocorn.org)  
Regional Economic Development District Initiatives (REDDI) [www.reddionline.com](http://www.reddionline.com)  
South Dakota Corn Growers Association [www.sdcorn.org](http://www.sdcorn.org)  
Steele-Waseca Cooperative Electric [www.swce.coop](http://www.swce.coop)  
Sugar Processing Research Institute (SPRI) [www.spriinc.org](http://www.spriinc.org)  
Texas Renewable Energy Industries Assn. [www.treia.org](http://www.treia.org)  
United Association  
Water Assurance Technology Energy Resources [www.waterc3.com](http://www.waterc3.com)  
Western Iowa Tech Community College -  
The National Boiler Training and Renewable Energy Institute [boiler.witcc.edu](http://boiler.witcc.edu)  
Western Petroleum Company [www.westernpetro.com](http://www.westernpetro.com)  
Wisconsin Pipe Trades Association [www.wipipetrades.org](http://www.wipipetrades.org)

## RFA Associate Members

AGRA Industries <a href="http://www.agraind.com">www.agraind.com</a>	Lallemand Ethanol Technology <a href="http://www.ethanoltech.com">www.ethanoltech.com</a>
AgCountry Farm Credit Services <a href="http://www.agcountry.com">www.agcountry.com</a>	Lansing Ethanol Services, LLC <a href="http://www.lansingtradegroup.com">www.lansingtradegroup.com</a>
AgStar Financial Services <a href="http://www.agstar.com">www.agstar.com</a>	Leonard, Street and Deinard <a href="http://www.leonard.com">www.leonard.com</a>
Alfa Laval, Inc. <a href="http://www.alfalaval.com">www.alfalaval.com</a>	Lignol Energy Corp <a href="http://www.lignol.ca">www.lignol.ca</a>
Arisdyne Systems, Inc. <a href="http://www.arisdyn.com">www.arisdyn.com</a>	Lincoln Energy Solutions <a href="http://www.lincolnenergysolutions.com">www.lincolnenergysolutions.com</a>
Barr Engineering Company <a href="http://www.barr.com">www.barr.com</a>	Mascoma Corporation <a href="http://www.mascoma.com">www.mascoma.com</a>
BBI International <a href="http://www.bbibiobiofuels.com">www.bbibiobiofuels.com</a>	Michael Best & Friedrich, LLP <a href="http://www.michaelbest.com">www.michaelbest.com</a>
BetaTec Hop Products <a href="http://www.barthhaasgroup.com">www.barthhaasgroup.com</a>	Midwest Laboratories, Inc. <a href="http://www.midwestlabs.com">www.midwestlabs.com</a>
BioFields S.A.P.I de C.V. <a href="http://www.biofields.com">www.biofields.com</a>	Monsanto <a href="http://www.monsanto.com">www.monsanto.com</a>
Brown Winick <a href="http://www.brownwinick.com">www.brownwinick.com</a>	Motiva Enterprises LLC <a href="http://www.motivaenterprises.com">www.motivaenterprises.com</a>
Ceres Inc. <a href="http://www.ceres.net">www.ceres.net</a>	Murex, N.A., Ltd. <a href="http://www.murexlt.com">www.murexlt.com</a>
CF Industries <a href="http://www.cfindustries.com">www.cfindustries.com</a>	Musket Corporation
CH2M Hill <a href="http://www.ch2m.com">www.ch2m.com</a>	Nalco Company <a href="http://www.nalco.com">www.nalco.com</a>
Christianson & Associates, PLLP <a href="http://www.christiansoncpa.com">www.christiansoncpa.com</a>	National Corn Growers Association <a href="http://www.ncga.com">www.ncga.com</a>
CHS Inc. <a href="http://www.chsinc.com">www.chsinc.com</a>	National Grain Sorghum Producers <a href="http://www.sorghumgrowers.com">www.sorghumgrowers.com</a>
CME Group <a href="http://www.cmegroup.com">www.cmegroup.com</a>	Noble Americas Corp. <a href="http://www.thisisnoble.com">www.thisisnoble.com</a>
CoBank <a href="http://www.cobank.com">www.cobank.com</a>	NorFalco Inc. <a href="http://www.norfalco.com">www.norfalco.com</a>
Codexis, Inc <a href="http://www.codexis.com">www.codexis.com</a>	North American Bioproducts Corp. <a href="http://www.na-bio.com">www.na-bio.com</a>
Consolidated Grain & Barge Co. <a href="http://www.cgb.com">www.cgb.com</a>	North Dakota Corn Council <a href="http://www.ndcorn.org">www.ndcorn.org</a>
CSX Transportation <a href="http://www.csx.com">www.csx.com</a>	Novozymes North America, Inc. <a href="http://www.novozymes.com">www.novozymes.com</a>
Dorsey & Whitney <a href="http://www.dorseylaw.com">www.dorseylaw.com</a>	Phibrochem <a href="http://www.lactrol.com">www.lactrol.com</a>
Eco-Energy, Inc. <a href="http://www.eco-energyinc.com">www.eco-energyinc.com</a>	Pinnacle Engineering Inc. <a href="http://www.pineng.com">www.pineng.com</a>
Eide Bailly LLP <a href="http://www.eidebailly.com">www.eidebailly.com</a>	Pioneer, A DuPont Company <a href="http://www.pioneer.com">www.pioneer.com</a>
Encore Business Solutions <a href="http://www.encorebusiness.com">www.encorebusiness.com</a>	PRX Geographic Inc. <a href="http://www.prxgeo.com">www.prxgeo.com</a>
Ethanol Products, LLC <a href="http://www.ethanolproducts.com">www.ethanolproducts.com</a>	Qteros <a href="http://www.qteros.com">www.qteros.com</a>
Fagen, Inc. <a href="http://www.fageninc.com">www.fageninc.com</a>	Renewable Products Marketing Group <a href="http://www.rpmgllc.com">www.rpmgllc.com</a>
Farm Credit Bank of Texas <a href="http://www.farmcreditbank.com">www.farmcreditbank.com</a>	RSM McGladrey <a href="http://www.rsmmgladrey.com">www.rsmmgladrey.com</a>
FCStone, LLC <a href="http://www.fcstone.com">www.fcstone.com</a>	SGS <a href="http://www.sgs.com/alternativefuels">www.sgs.com/alternativefuels</a>
Ford Motor Company <a href="http://www.ford.com">www.ford.com</a>	Stoel Rives LLP <a href="http://www.stoel.com">www.stoel.com</a>
Fremont Industries, Inc. <a href="http://www.fremontind.com">www.fremontind.com</a>	SunOpta BioProcess <a href="http://www.sunopta.com/bioprocess">www.sunopta.com/bioprocess</a>
Fulbright & Jaworski L.L.P. <a href="http://www.fulbright.com">www.fulbright.com</a>	TMO Renewables LTD <a href="http://www.tmo-group.com">www.tmo-group.com</a>
G Cube Insurance Services <a href="http://www.gcube-insurance.com">www.gcube-insurance.com</a>	TransMontaigne Product Services <a href="http://www.transmontaigne.com">www.transmontaigne.com</a>
GATX Rail <a href="http://www.gatxrail.com">www.gatxrail.com</a>	Transportation Fuels Consulting Inc.
Gavilon, LLC <a href="http://www.gavilon.com">www.gavilon.com</a>	TranSystems <a href="http://www.transystems.com">www.transystems.com</a>
Genencor, A Danisco Division <a href="http://www.genencor.com">www.genencor.com</a>	Tranter PHE, Inc. <a href="http://www.tranter.com">www.tranter.com</a>
Grace Davison <a href="http://www.gracedavison.com">www.gracedavison.com</a>	Trinity Rail Group <a href="http://www.trinityrail.com">www.trinityrail.com</a>
Greenfield Ethanol Inc. <a href="http://www.greenfieldethanol.com">www.greenfieldethanol.com</a>	U.S. Development Group <a href="http://www.us-dev.com">www.us-dev.com</a>
Growmark, Inc. <a href="http://www.growmark.com">www.growmark.com</a>	U.S. Energy Services <a href="http://www.usenergyservices.com">www.usenergyservices.com</a>
Hydro-Klean, Inc. <a href="http://www.hydro-klean.com">www.hydro-klean.com</a>	U.S. Water Services <a href="http://www.uswaterservices.com">www.uswaterservices.com</a>
Innospec Fuel Specialties <a href="http://www.innospecinc.com">www.innospecinc.com</a>	Union Pacific Railroad <a href="http://www.uprr.com">www.uprr.com</a>
Iowa Renewable Fuels Association <a href="http://www.iowarfa.org">www.iowarfa.org</a>	Union Tank Car Company <a href="http://www.utlx.com">www.utlx.com</a>
KATZEN International, Inc. <a href="http://www.katzen.com">www.katzen.com</a>	Victaulic <a href="http://www.victaulic.com">www.victaulic.com</a>
Kenan Advantage Group, Inc. <a href="http://www.thekag.com">www.thekag.com</a>	Weaver <a href="http://www.weaverllp.com">www.weaverllp.com</a>
Kinder Morgan Inc. <a href="http://www.kindermorgan.com">www.kindermorgan.com</a>	Western Ethanol Company, LLC <a href="http://www.westernethanol.com">www.westernethanol.com</a>



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Vice President, Government Affairs

### Robert White

Director, Market Development



The Renewable Fuels Foundation (RFF) is dedicated to meeting the educational, research, and strategic planning needs of the U.S. fuel ethanol industry.

The goal is to assure a growing and healthy renewable fuels industry well into the future. The focus of the RFF is on academia, industry and public policy makers as we address issues related to new uses, new feedstocks, and new technologies that will impact the future of ethanol.

To achieve its goals, the RFF is partnering with the National FFA Organization to support the establishment of a Renewable Energy Learning Center for high school students. Additionally, the RFF is working with two-and four-year colleges to develop programs of study directly related to the ethanol industry.

## RFF Officers

### Mike Jerke

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### Bob Sather

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### Mick Henderson

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### Bob Dinneen

President

Renewable Fuels Association

## RFA Resources At Your Fingertips

In the Information Age, facts, figures, and myths all travel at the speed of the Web. The RFA regularly provides up to date information about the industry and counters the myths and half-truths about ethanol that are ever-present. Join us and the conversation at all of these locations online!

RFA's homepage provides a great deal of information, including:

- Unparalleled analyses on trends and topics
- Most recent press releases
- Vital statistics and talking points

At ChooseEthanol.com, the RFA provides everyday consumers with easy to understand information, including:

- Quick facts about ethanol use
- Location of nearest ethanol pumps
- How-to information to install ethanol pumps in your neighborhood

The RFA provides a free daily compilation of must-read news stories from across the country and around the world.

The RFA Smartbrief is designed to provide the news you need in a user-friendly format. Log on and subscribe to RFA's SmartBrief at [www.EthanolRFA.org](http://www.EthanolRFA.org).



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Several RFA staff members routinely comment and provide insight in the evergrowing Twitterverse. Follow these RFA personalities:

The RFA	@ethanolrfa
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Ashley Morrison	@ethanolfuel



The RFA can be found on [www.facebook.com](http://www.facebook.com) by searching for **Renewable-Fuels-Association**



The RFA has produced a number of videos educating and entertaining the public on a range of issues. See them all at

[www.youtube.com/renewablefuelsassoc](http://www.youtube.com/renewablefuelsassoc)



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