

# BATTLING FOR THE BARREL



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## "BATTLING FOR THE BARREL"

THESE FOUR WORDS TELL THE STORY OF U.S. ETHANOL.

As an alternative to one of the most entrenched industries in this country – Big Oil – we have never had it easy. As our output has increased exponentially, from 175 million gallons in 1980 to more than 13 billion gallons in recent years which represents nearly 10 percent of the nation's motor fuel supply, we've always had to fight for our share of the market.

Now, as we face the future, we need to face the grim reality. During 2012, for the first time in 16 years, U.S. ethanol production experienced an annual decline from the previous year. With the worst drought in decades, record prices for corn, and a drop in demand for gasoline because of the lagging economy, U.S. ethanol has endured a "perfect storm" of adverse conditions. Some companies had to close facilities and lay-off employees, temporarily or even permanently.

Because of your resiliency and ingenuity, the industry survived and surmounted these challenges. But make no mistake: We are still fighting for our future.

As we begin 2013, we're battling for the barrel on many fronts, fighting to keep forward-looking energy policies in Washington, D.C., working to open new markets here and abroad, breaking down walls to greater usage in the marketplace, tearing down trade barriers from Brussels to Brasilia and restoring a positive narrative for ethanol in the media.

Certainly, this year we will need to defend the Renewable Fuel Standard (RFS), which commits our country to use increasing quantities of clean-burning renewable fuels. We are up against well-financed opposition, from Big Oil to trade associations representing the grocery and restaurant chains. We will speak these simple truths from the nation's news media to the corridors of Congress:

The RFS is one of the most successful energy policies ever implemented in the U.S., reducing our dependence on imported oil from 60% in 2005 to 41% in 2012. The ethanol industry is an American success story, saving the average household more than \$1200 in gasoline bills, supporting over 365,000 jobs, reducing greenhouse gas emissions, and revitalizing rural communities all across the country.

In the states, we are battling back against the opposition to E15 which was approved by the U.S. Environmental Protection Agency (EPA) for the great majority of the cars and light-duty vehicles on the road today. E15 is the most-tested fuel in history, but Big Oil and its allies are still trying to build roadblocks on its path to the market.

In the international arena, we are battling for the barrel by fighting protectionist policies, from tax and trade policies in Brazil to an "anti-dumping" investigation in the European Union.

In the arena of public opinion, nationally and internationally, we are counteracting the myths about biofuels: from the unproven theory of "indirect land use change" to the false charges that ethanol decreases food supplies, increases food prices and does not protect the natural environment.

For all our challenges, we keep moving forward, developing new technologies, achieving new efficiencies, diversifying product streams, and growing global markets.

As we battle for the barrel, we are fighting for America's economic security, energy security, and environmental security. As always, it's an uphill fight, but one that we dare not – and will not – lose.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Dinneen", with a stylized flourish at the end.

Bob Dinneen, President & CEO

# U.S. ETHANOL: A FUTURE WORTH FIGHTING FOR

From its beginnings in the Midwest three decades ago, the U.S. ethanol industry has grown to 211 plants operating in 29 states, with annual capacity of 14.8 billion gallons.

Last year, in the midst of a severe drought and economic distress, the industry produced about 13.3 billion gallons of ethanol, very close to 2010 levels. However, 2012 was the first year since 1996, another drought year, to see a year-to-year decline in ethanol production.

Nonetheless, ethanol demand remains strong. It is found in more than 96 percent of all gasoline and sold from coast to coast and border to border.

While the industry faced formidable challenges during 2012, American biofuels are waging – and winning – the long-term fight for future growth and further diversification.

In recent years, technological innovations have reduced energy inputs, increased efficiency and diversified output, from livestock feed to other co-products. Ethanol plants are evolving into sophisticated biorefineries capable of producing a wide range of fuel, food, feed and chemical products. As the industry moves forward towards the next generation of biofuels, several commercial-sized cellulosic ethanol facilities are under construction.

In addition to new technologies and new feedstocks, the industry is expanding into new markets. During 2012, the U.S. industry exported an estimated 700-750 million gallons of ethanol – around 6 percent of its total production – to other countries, including the United Kingdom, Canada, Mexico, the Netherlands and also such OPEC members as the United Arab Emirates and Nigeria. Seeking to compete with other motor fuels on a level playing field, at home and abroad, the U.S. ethanol industry is fighting back against protectionist policies from Brazil to the European Union.

Meanwhile, in the domestic marketplace, with E10 available almost everywhere, the industry is fighting to bring E15 blends into widespread use.

From the laboratories and the refineries to gasoline pumps here in the U.S. and around the world, the battle for the barrel continues.

## U.S. ETHANOL PRODUCTION CAPACITY BY STATE

*In Millions of Gallons, ordered by nameplate capacity*

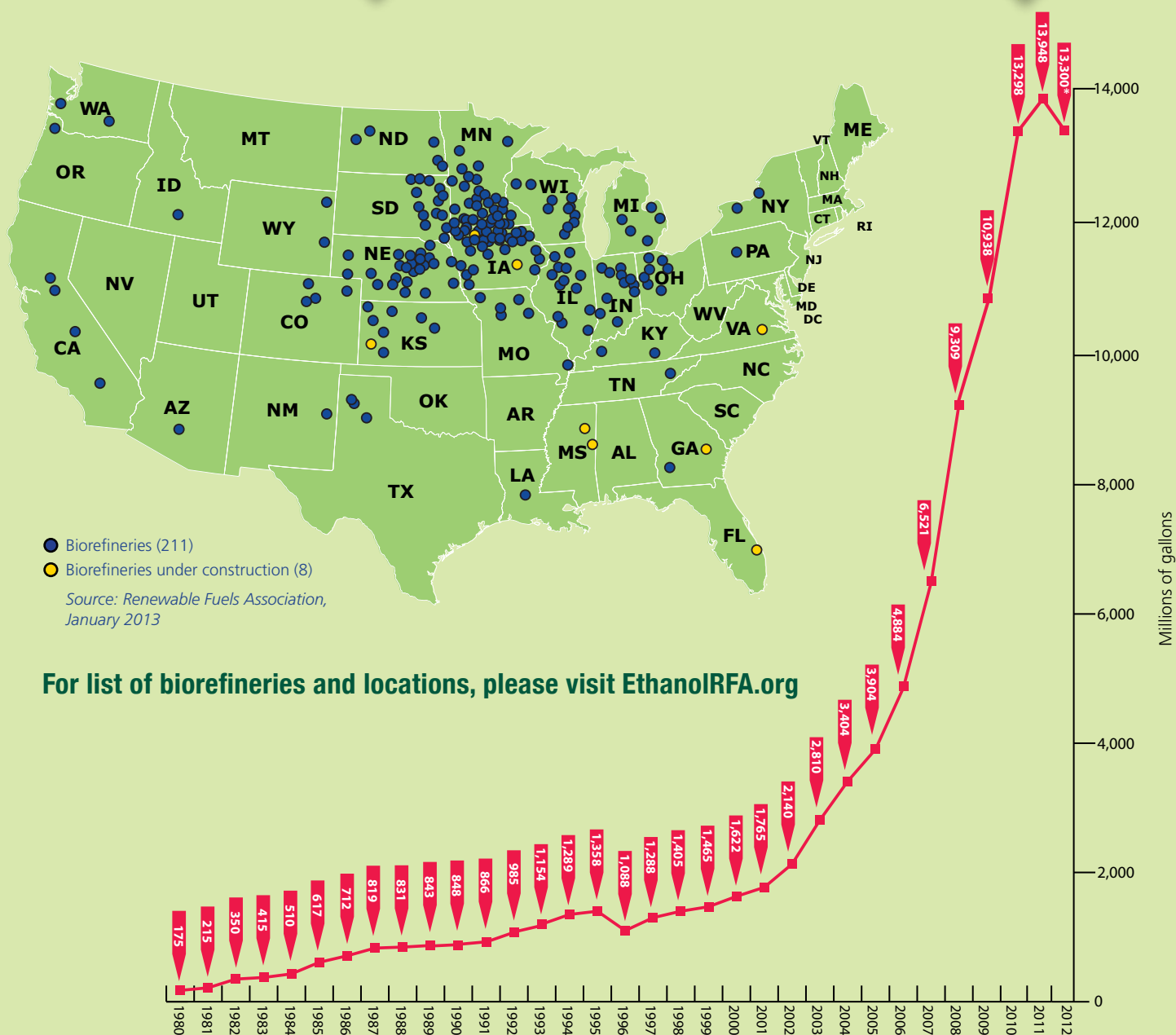
	Nameplate	Operating	Under Construction/ Expansion	Total
Iowa	3,848.0	3,843.0	0	3,848.0
Nebraska	2,058.0	1,744.0	0	2,058.0
Illinois	1,412.0	1,374.0	0	1,412.0
Indiana	1,148.0	826.0	0	1,148.0
Minnesota	1,147.1	1,010.6	0	1,147.1
South Dakota	1,016.0	1,016.0	0	1,016.0
Kansas	503.5	381.5	45	548.5
Ohio	538.0	478.0	0	538.0
Wisconsin	504.0	504.0	5	509.0
North Dakota	370.0	360.0	0	370.0
Texas	355.0	315.0	0	355.0
Missouri	271.0	256.0	0	271.0
Michigan	268.0	268.0	0	268.0
Tennessee	225.0	225.0	0	225.0
California	223.0	178.0	0	223.0
New York	164.0	164.0	0	164.0
Oregon	149.0	41.0	0	149.0
Colorado	125.0	125.0	0	125.0
Pennsylvania	110.0	110.0	0	110.0
Georgia	100.4	0.4	0	100.4.0
Virginia	65.0	65.0	0	65.0
Arizona	55.0	0	0	55.0
Mississippi	54.0	0	0	54.0
Idaho	50.0	50.0	0	50.0
Kentucky	35.4	35.4	0	35.4
New Mexico	30.0	0	0	30.0
Wyoming	11.5	11.5	0	11.5
Louisiana	1.5	1.5	0	1.5
<b>Total</b>	<b>14,837.4</b>	<b>13,317.9</b>	<b>50</b>	<b>14,887.4</b>

*Source: Renewable Fuels Association, January 2013*

WHILE THE INDUSTRY FACED FORMIDABLE CHALLENGES DURING 2012,  
AMERICAN BIOFUELS ARE WAGING — AND WINNING — THE LONG-TERM FIGHT FOR  
FUTURE GROWTH AND FURTHER DIVERSIFICATION.

U.S. ETHANOL BIOREFINERY LOCATIONS

HISTORIC U.S. FUEL ETHANOL PRODUCTION



Source: U.S. Department of Energy/Energy Information Administration, January 2013 \* Estimated

# FIGHTING TO FUEL — AND FEED —THE WORLD

When we fight for U.S. ethanol, we're battling for the survival and success of an industry that produces fuel – *and* feed.

Too often, critics of the ethanol industry ignore this fact: The grain ethanol process results in renewable fuel – and highly nutritious animal feed.

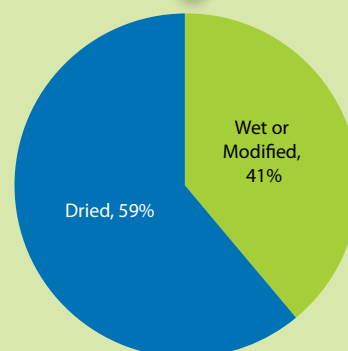
In modern ethanol production, for every bushel of corn that is processed, one-third is returned to the livestock feed market.

That's because ethanol production requires only the starch portion of a corn kernel. The remaining protein, fat, fiber and other nutrients are returned to the global livestock and poultry feed markets.

Thus, every bushel of corn processed by an ethanol plant produces 2.8 gallons of ethanol – and approximately 17 pounds of animal feed. This high-quality feed for cattle, poultry and pigs isn't a byproduct of ethanol production; it's a co-product.

During 2012 alone, the U.S. ethanol industry used 4.8 billion bushels of corn to produce an estimated 13.3 billion gallons of ethanol and 36.7 million metric tons of high-quality livestock feed. This includes 33.3 million metric tons of distillers grains and 3.4 million tons of corn gluten feed and meal.

DISTILLERS GRAINS PRODUCTION BY TYPE



Source: Industry Sources, January 2013

## Burgers, Not Baloney

This output represents considerably more feed production than the total amount of grain used at beef feedlots across the nation. It's equivalent to more corn than is produced by any country on earth except the U.S., China and Brazil. In fact, it's enough livestock feed to provide every American with four quarter-pound hamburgers every week.

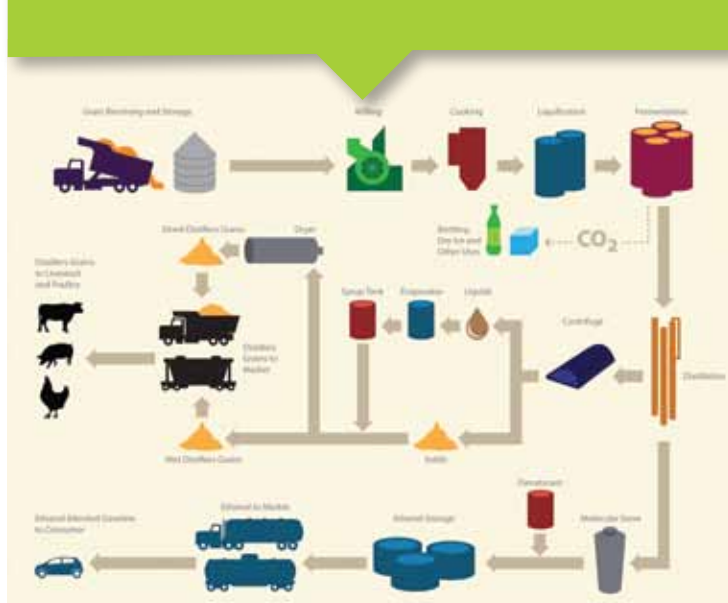
These facts should inform the public policy debates about American ethanol, especially because some representatives of the food and restaurant industries have become biofuels-bashers.

For instance, because the ethanol industry produces so much animal feed, waiving the Renewable Fuel Standard (RFS) in 2013 could actually result in higher feeding costs for livestock and poultry producers.

That is the conclusion of a recent study conducted by the consulting firm Cardno-ENTRIX and commissioned by RFA. The study found that if a waiver of the RFS did reduce biofuel output, minor reductions in corn prices would be partially or fully offset by increased prices for other feed ingredients like distillers grains and soybean meal.

Make no mistake: The battle for the barrel is also a fight for the feedlot.

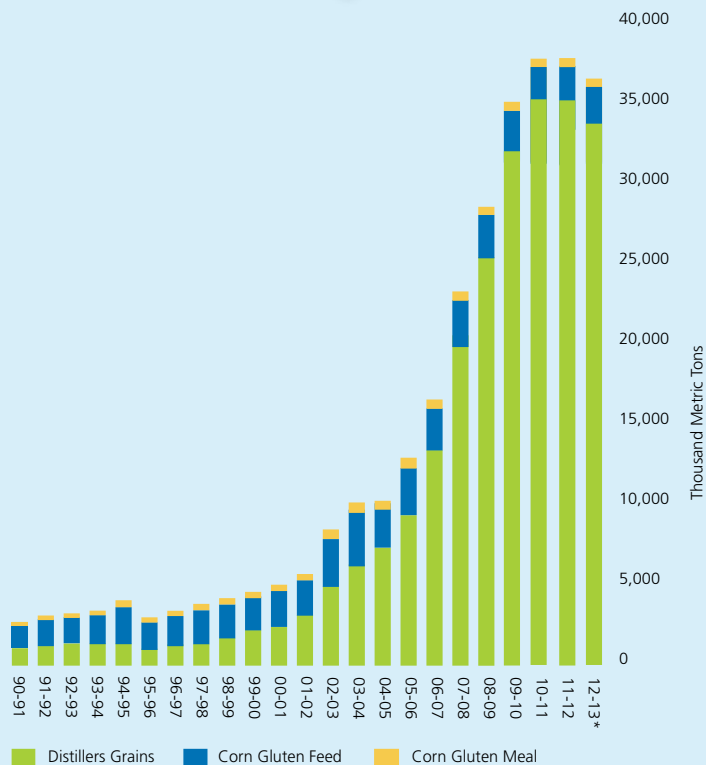
DRY MILL ETHANOL PROCESS



Source: RFA



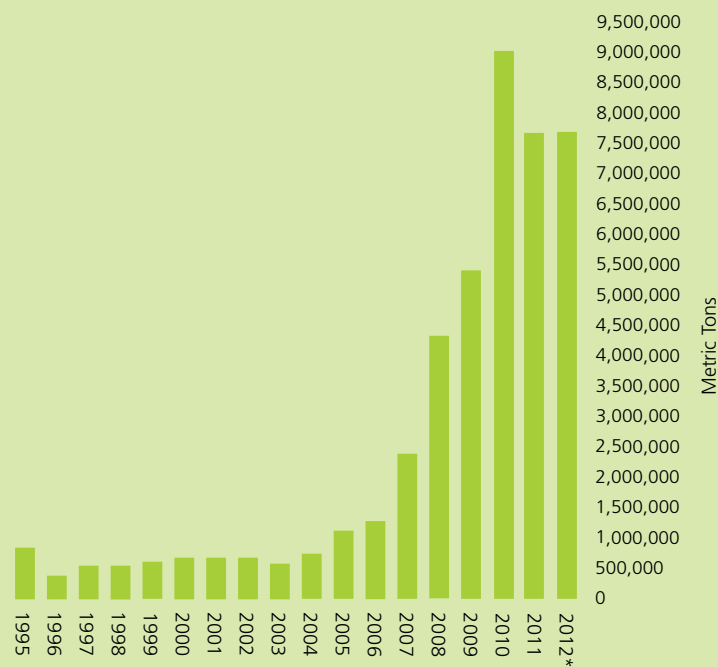
## PRODUCTION OF U.S. ETHANOL FEED CO-PRODUCTS



Source: RFA

\*Estimated

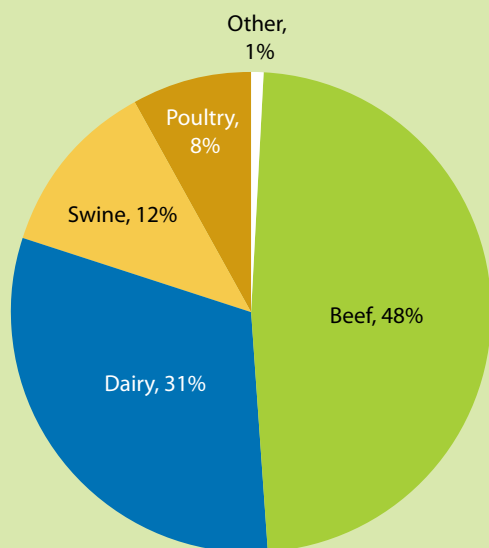
## U.S. DISTILLERS GRAIN EXPORTS



Source: USDA-FAS

\*Estimated

## DISTILLERS GRAINS CONSUMPTION BY SPECIES, 2012\*

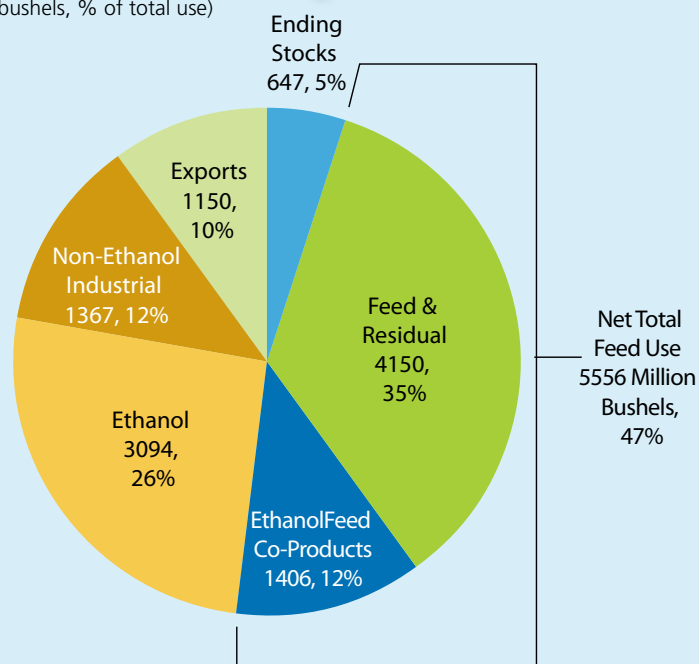


Source: CHS and RFA

\*Estimated

## NET CORN USE, 2012/2013\*

(Million bushels, % of total use)



Source: USDA/OCE

\*Estimated

# EXPLODING THE MYTH OF FOOD vs. FUEL

**D**uring the summer of 2012, the drought in the Midwest again caused detractors to question whether the U.S. can continue to feed and fuel the world.

As demonstrated by last year's events – and the underlying realities of American agriculture and American biofuels – the answer is an emphatic “Yes.”

Last year, in spite of what many characterized as the worst drought in more than 50 years, American farmers produced 10.7 billion bushels of corn – the eighth largest corn crop on record. Moreover, corn is now an international commodity, and other nations saw increased corn production in 2012. In fact, 2012 was the 2nd largest world corn crop in history.

For all the ups and downs, from year to year, long-term productivity gains in American agriculture and American ethanol are making “food versus fuel” a false choice.

Tremendous increases in the productivity of American farmers are ensuring that ample supplies of grain are available for domestic and international use as food, feed and fuel. Results

from a study by Informa Economics, Inc., project the average corn yield to increase by another 29 percent by 2020 to 189 bushels per acre. Moreover, one-third of every bushel of grain processed into ethanol is enhanced and returned to the animal feed market.

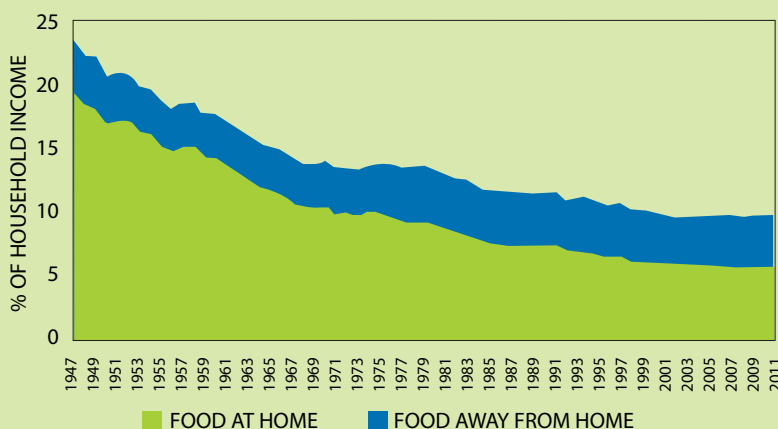
In addition, an estimated two-thirds of the nation's ethanol biorefineries extract corn distillers oil during the ethanol and feed production process. Then they sell that distillers oil into the feed market, as well as biodiesel market.

## Neither Reducing Food Supplies nor Raising Food Prices

These factors help to explain why U.S. ethanol production is neither reducing worldwide food supplies nor raising food prices at home or abroad.

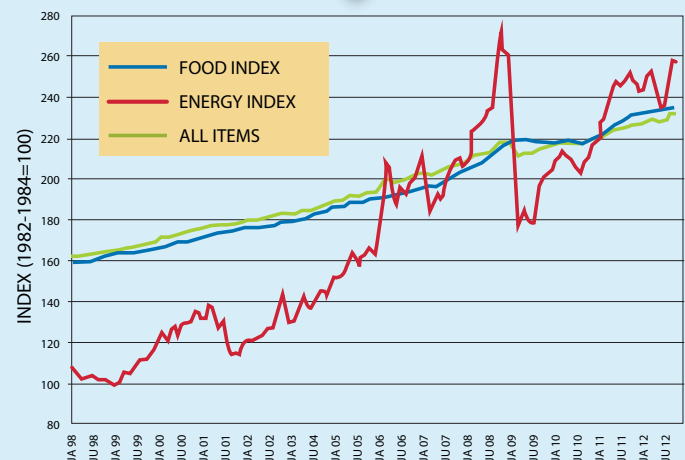
When it comes to global food supplies, U.S. ethanol production uses less than 3 percent of the world's grain supply on a net basis. That means more than 97 percent of all the grain in the world is used for other purposes.

PERCENTAGE OF U.S. HOUSEHOLD INCOME SPENT ON FOOD



Source: USDA

CHANGES IN CONSUMER PRICES; ALL ITEMS, FOOD AND ENERGY



Source: U.S. Dept. of Labor



## U.S. ETHANOL PRODUCTION IS NEITHER REDUCING WORLDWIDE FOOD SUPPLIES NOR RAISING FOOD PRICES AT HOME OR ABROAD.



Similarly, the amount of agricultural land required to produce 15 billion gallons of grain ethanol in the U.S. by 2015, as required by the 2007 Energy Independence and Security Act, is likely to be less than 1 percent of total world cropland.

Clearly, American ethanol production doesn't reduce worldwide food supplies. Does it raise food prices?

Big Food claimed this year that "food prices have spiked nearly 18% since 2005," the year when Congress passed the RFS and President Bush signed it into law. In fact, that's an average increase of only 2.57 percent per year.

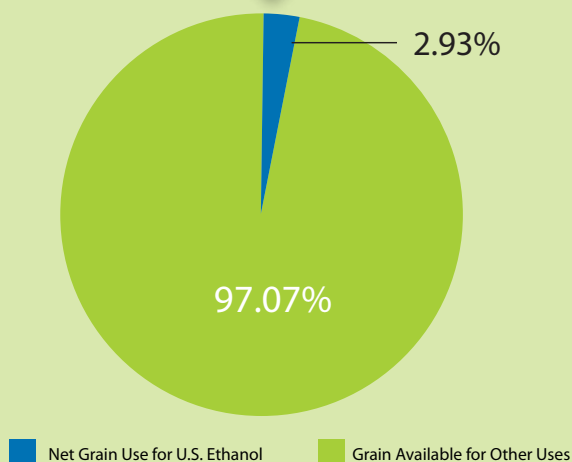
That's right in line with the 20-year average for annual food inflation – and a slower rate than general inflation. And, while Big Oil blames biofuels for boosting food prices, these increases are much lower than energy price hikes since 2005: 55 percent for retail gasoline prices, 60 percent for diesel prices and 68 percent for crude oil prices.

The fact is: Every step in the food supply chain is affected by energy prices. Eighty-six percent of the average household's food bill pays for energy, transportation, processing, packaging, marketing and other supply chain costs. Only 14 percent pays for the raw agricultural ingredients in our groceries.

Is grain ethanol production a leading cause for food price increases?

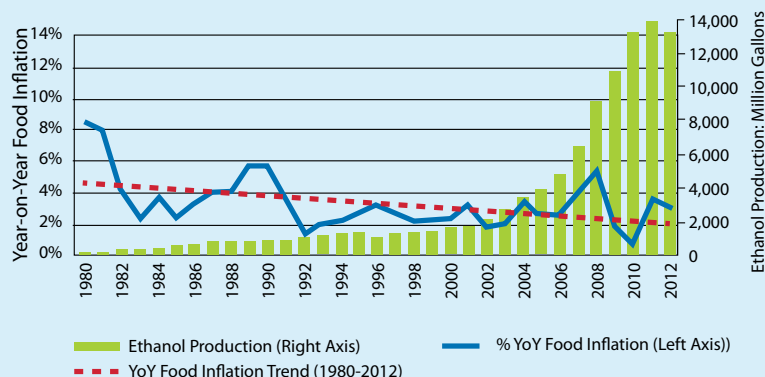
There's not a kernel of truth in that claim.

U.S. ETHANOL USE OF 2012/13 GLOBAL GRAIN SUPPLY



Source: USDA and RFA

U.S. FOOD PRICE INFLATION AND ETHANOL PRODUCTION



Source: U.S. Dept. of Labor and RFA

# DEFENDING AMERICA'S ENERGY SECURITY

**W**ith the turbulence in the Middle East – and hostile statements from foreign dictators from Iran to Venezuela – U.S. ethanol strengthens our nation's energy security.

The statistics tell the story:

Since 2011, American-made ethanol has contributed more volume to the U.S. fuel supply than the gasoline refined from oil imports from Saudi Arabia, Iraq and other OPEC nations. In fact, American-made ethanol has accounted for 6 out of every 10 barrels of new U.S. produced liquid fuel production since 2005. Thus, from 2005 through 2012, as ethanol increased from 1 percent to 10 percent of gasoline supply, dependence on imported petroleum products declined from 60 percent to 41 percent. Without ethanol in 2012, import dependence would have been 48%.

Reducing America's addiction to imported oil is important not only because of the risk that foreign governments will reduce supplies and raise prices but also because of the dangers of shipping the oil from troubled regions, such as the Persian Gulf.

Military leaders from all branches of the armed forces have testified to these truths. As Secretary of the Navy Ray Mabus explained:

"When we did an examination of the vulnerabilities of the Navy and Marine Corps, fuel rose to the top of the list pretty fast. We simply buy too much fossil fuel from actual and potentially volatile places. We would never allow some of these countries we buy fuel from to build our ships, our aircraft, our ground vehicles — but because we depend on them for fuel, we give them a say in whether our ships sail, our aircraft fly, our ground vehicles operate."

## OUR NATION'S LEADERS SPEAK OUT

"Because we know we can't power America's future on energy that's controlled by foreign dictators, we are taking big steps down the road to energy independence, laying the groundwork for new green energy economies that can create countless well-paying jobs. It's an investment that will double the amount of renewable energy produced over the next three years."

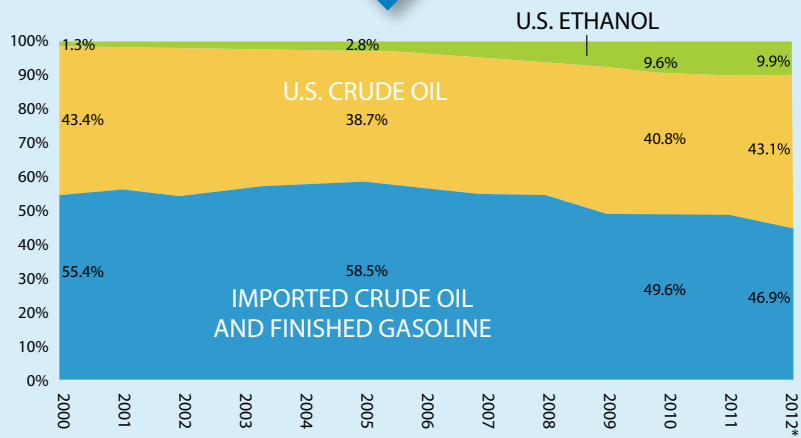
- **President Barack Obama**, *Remarks Upon Signing the American Recovery & Reinvestment Act, February 17, 2009*

"Part of the problem is that some of the nations we rely on for oil have unstable governments or agendas that are hostile to the United States. These countries know we need their oil, and that reduces our influence, our ability to keep the peace in some areas. And so energy supply is a matter of national security."

- **President George W. Bush**, *Address to the Renewable Fuels Association, April 25, 2006*



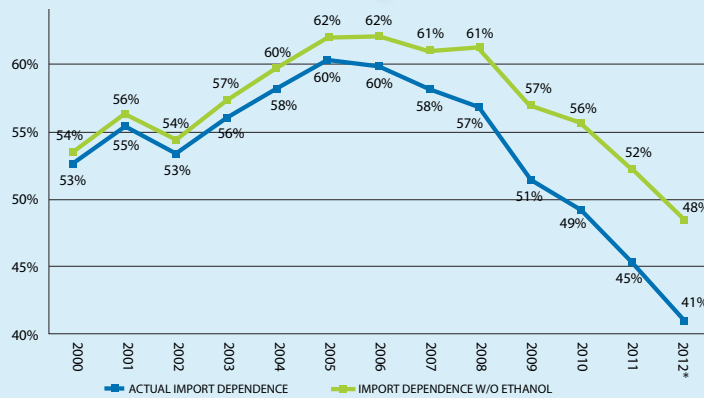
## SOURCES OF U.S. GASOLINE SUPPLY (BY VOLUME), 2000-2012



Source: Energy Information Administration and RFA

\*Estimated

## U.S. OIL IMPORT DEPENDENCE WITH AND WITHOUT ETHANOL



Source: Energy Information Administration and RFA

\*Estimated





# FIGHTING TO GENERATE JOBS, AND REVIVE RURAL AMERICA

**W**ith 211 biorefineries in 29 states – and suppliers across the country—the U.S. ethanol industry fuels the nation's economic security.

During 2012, even in the midst of a record drought and its consequences, the industry supported more than 87,000 direct jobs, as well as more than 295,000 indirect jobs. Overall, the industry contributed \$43.4 billion to the gross domestic product and \$30.2 billion to household incomes. In addition to construction, production and maintenance workers, these include jobs in fields such as engineering, chemistry and accounting. According to an *Ethanol Producer Magazine* 2010 survey, these are quality jobs, with more than **75 percent of these workers earning \$50,000 per year and 99% receiving health care benefits.**

**FACT:** The production of 13.3 billion gallons of ethanol in 2012 created real, measurable economic opportunity, including:

- 87,000 direct jobs
- 295,000 indirect and induced jobs
- \$43.4 billion contribution to GDP
- \$30.2 billion in household income

Source: Cardno ENTRIX

In addition to generating jobs and fueling economic growth, the industry contributed \$8 billion in federal, state and local taxes, helping communities support their public schools and police and fire departments.

The ethanol industry is doing its part to revive rural America, providing a stable market for farmers' products and good jobs in its biorefineries, which are often located in small towns.

## Reducing Prices at the Pump

Ethanol also enhances Americans' economic security by reducing the prices they pay at the pump. Adding some 13 billion gallons to the nation's motor fuel pool – and blending it with gasoline in E10 – has a similar effect to the U.S. oil industry finding a way to extract 10 percent more gasoline from a barrel of oil. Since the supply of motor fuel is increased, there is a downward pressure on its price.

These factors help to explain why U.S. ethanol reduced wholesale gasoline prices by an average of \$1.09 per gallon in 2011, \$0.89 per gallon in 2010, and an average of \$0.29 per gallon since 2000. These were the findings of a study by economists Dermot Hayes of Iowa State University and Xiaodong Du of the University of Wisconsin based on a methodology they previously published in a highly respected academic journal. In a related study, agricultural economists at Louisiana State University found "...each additional billion gallons of ethanol reduces gasoline prices as much as \$0.06 per gallon..." and 2010 estimated savings were \$0.78 per gallon.

The inescapable facts for American families: More ethanol means more jobs and lower prices at the pump.

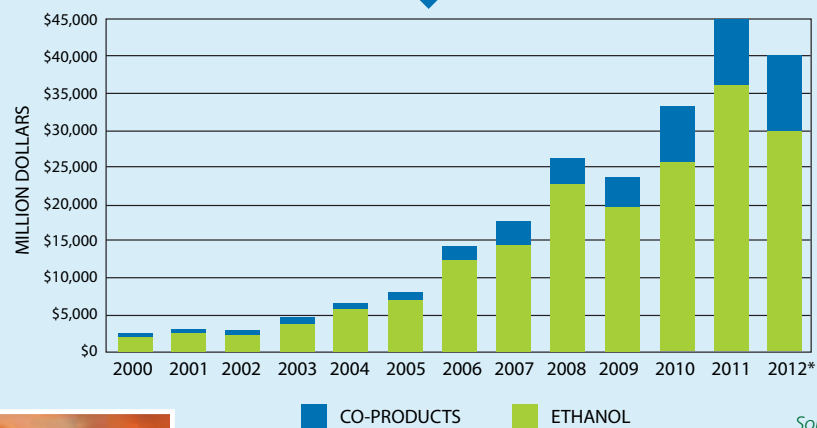
**ETHANOL ENHANCES AMERICANS'  
ECONOMIC SECURITY BY REDUCING  
THE PRICES THEY PAY AT THE PUMP.**



# RAISE REVENUES,



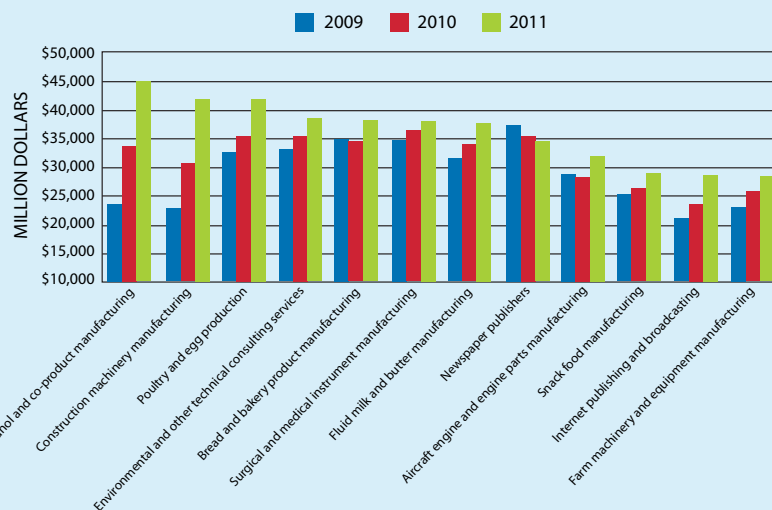
ETHANOL INDUSTRY GROSS VALUE OF OUTPUT, 2000-2012



Source: USDA and RFA



GROSS VALUE OF OUTPUT, 2009-2011:  
ETHANOL INDUSTRY COMPARED TO SIMILAR-SIZED INDUSTRIES



Source: Bureau of Economic Analysis and RFA



# FIGHTING FOR THE RFS: PRESERVING AND PROMOTING

**T**he American ethanol industry is preparing for an historic battle to defend the Renewable Fuel Standard (RFS).

One of the most successful energy policies ever enacted in the United States, the RFS has laid the foundation for further private investment in the domestic biofuels industry. The RFS has helped generate jobs, revive rural economies, reduce oil imports, lower gasoline prices, reduce air pollution, and cut greenhouse gas emissions.

But Big Oil doesn't like the RFS because it has taken 10 percent of their barrel, reduced consumer costs, and begun to wean America off its addiction to foreign petroleum.

That's why the American Petroleum Institute (API) and its allies in the livestock, poultry, grocery and chain restaurant industries are gearing up to repeal the RFS. And that is why the U.S. biofuels sector and our supporters among environmentalists, consumers, national security experts and Rural America are gearing up to fight back.

Round One of the fight was waged last year.

During the summer of 2012, the drought in the Farm Belt raised fears about food supplies and prices. But some in the livestock,

poultry, and meat processing industries used the drought to propose waiving the RFS. They claimed the RFS was a broken and inflexible "grain vacuum" that would deplete feed supplies.

In fact, the RFS isn't broken, and as the U.S. Environmental Protection Agency (EPA) eventually ruled, there was no need to fix it.

The RFS provides the flexibility to respond to changing conditions, such as this summer's drought. Oil refiners and blenders receive a credit (called a Renewable Identification Number, RIN) for each gallon of renewable fuel they blend. Refiners and blenders submit credits to the EPA at the end of each year to demonstrate compliance with the RFS. If they use more gallons of renewable fuel than they were obligated to use by the RFS, they can carry forward surplus credits for possible use in the next year.

Because of "over-compliance" with previous years' RFS requirements, there were an estimated 2.6 billion surplus RINs available to refiners and blenders for 2012. Theoretically, blenders could have been 2.6 billion gallons (the equivalent of some 950 million bushels of corn) short of meeting the RFS with wet gallons and still have complied with the standard. Additionally, there were some 800 million gallons of ethanol (the equivalent of nearly 300 million bushels) in storage. These stocks could be drawn down if ethanol production falls short of demand.



**BIG OIL DOESN'T LIKE THE RFS BECAUSE IT HAS TAKEN 10 PERCENT OF THEIR BARREL, REDUCED CONSUMER COSTS, AND BEGUN TO WEAN AMERICA OFF ITS ADDICTION TO FOREIGN PETROLEUM.**



# AN AMERICAN SUCCESS STORY

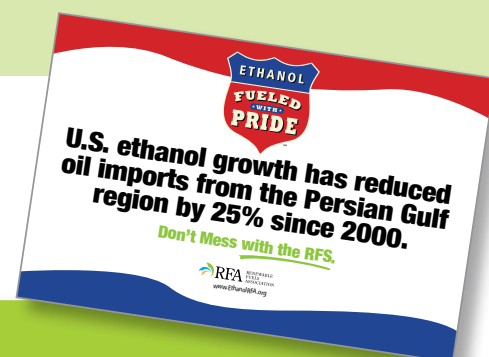
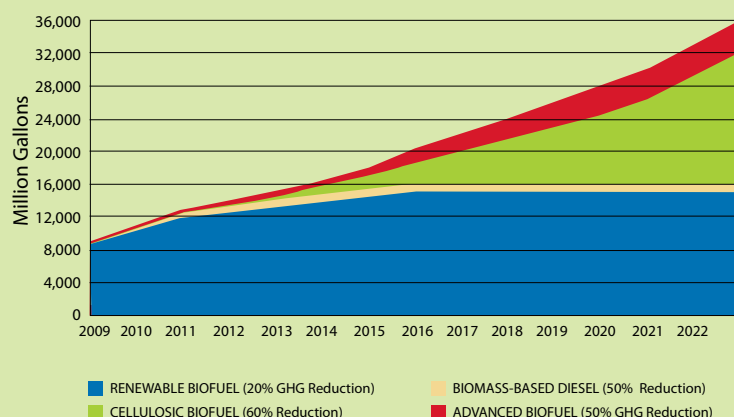
RFS flexibility and trivial impacts on corn prices were confirmed by numerous economists and experts, including Iowa State University, University of Missouri, Morgan Stanley, and many others. Based on highly sophisticated economic modeling, EPA ultimately determined that waiving the RFS in 2013 might be expected to reduce corn prices by just 7 cents per bushel—less than 1 percent.

Although the EPA rejected the waiver, the API and its allies are appealing to Congress to repeal the RFS. They've even enlisted the AAA in their campaign, seemingly ignoring the fact that blending gasoline with ethanol saves the average American household more than \$1,200 a year.

Fighting back against Big Oil, the RFA has joined a coalition of companies and organizations to promote and defend the RFS – Fuels America. Our coalition partners include: the American Coalition for Ethanol, the Advanced Ethanol Council, the American Security Project, the Biotechnology Industry Organization, Growth Energy, the National Farmers Union, the National Association of Wheat Growers, and the National Corn Growers Association, as well as Abengoa, DuPont, Novozymes, POET, and others.

Together, we will work for a policy that has worked for America.

## RENEWABLE FUEL STANDARD (RFS) REQUIREMENTS



## RENEWABLE FUEL STANDARD (BILLION RINS 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

Source: Energy Independence and Security Act of 2007, RFS Schedule

# THE LONG WAR: WINNING E15

**F**or too long, a labyrinth of regulations held the domestic market for ethanol to just 10 percent of the nation's gasoline supply.

Now, thanks to years of effort by the U.S. ethanol industry – and favorable rulings by the U.S. Environmental Protection Agency (EPA) – E15 (15 percent ethanol, 85 percent gasoline) has finally become a commercially available motor fuel.

While much work remains to be done, the progress towards making E15 available nationwide is a significant stride towards offering American motorists real choices at the pump.

Leading the introduction of the first increase in ethanol content in gasoline since 1978, RFA drew on decades of experience. Navigating the regulatory framework for fuels is no job for a novice, and RFA continues to overcome the obstacles on the road towards E15.

For instance, as part of the approval process for E15, EPA required a Misfueling Mitigation Plan – a first-of-its-kind regulatory requirement for the fuels industry. To help ease the regulatory burden for seasonal markets, RFA submitted a Model Misfueling Mitigation Plan, streamlining the requirements while meeting the conditions set by EPA. On March 15, 2012, EPA formally accepted RFA's model plan, which is now being used by gasoline marketers across the country.

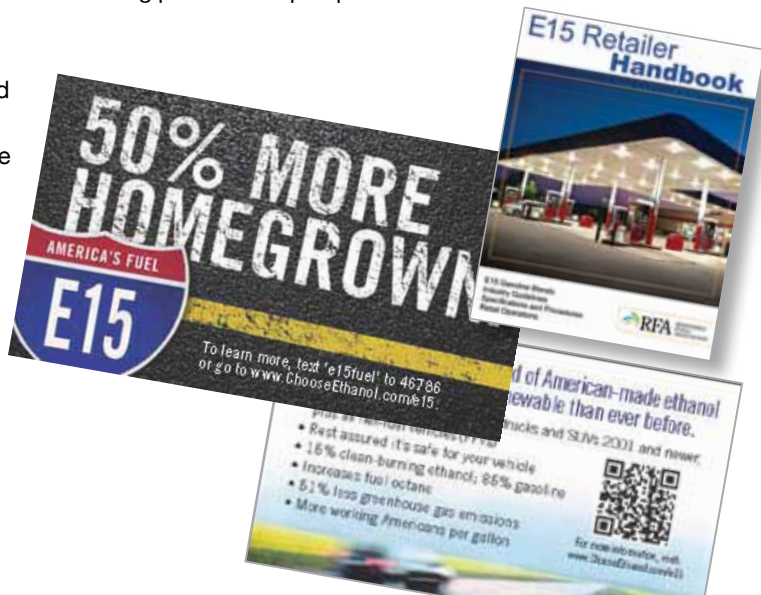
Leading the commercialization movement for E15, RFA has launched the E15 Education and Outreach Coalition to inform retailers and consumers, as well as producing and distributing the RFA E15 Retailer Handbook. Touted as a “must read” for fuel blenders, distributors and retailers and circulated to more than 15,000 marketers across the U.S., the handbook covers federal and state regulatory requirements, explains EPA's conditions for selling E15, suggests avenues for compliance and offers commercial success tools.

In response to another request from EPA, RFA has also developed a second educational tool, the E15 Retail Advisory, to be used in tandem with the handbook. RFA has held dozens of educational webinars and seminars about the benefits of E15, while partnering with state organizations to develop a network of expert advocates to address challenges and opportunities for E15.

Thanks largely to these efforts, E15 is rolling out in the states, especially in the nation's heartland:

- In Kansas, the first retailer to offer E15 is the Zarco 66 Oasis station in Lawrence, Kan. The kickoff of sales had cars lined up and down the street and today represents more than 20% of fuel sales.
- In Iowa, at the state's first E15 retailer, the Linn Co-op Oil Company in Marion, sales jumped by 30 percent after its E15 pumps opened in late September, 2012. Keeping consumers informed, the Iowa RFA, Iowa Corn and the Iowa Power Fund Community Grant Program launched a media campaign including radio announcements, print advertisements, billboards and direct mail.
- In Nebraska, the first retailer to offer E15 was Uncle Neal's Phillips 66 in Lexington -- one of the first recipients of a Nebraska Corn Board blender pump grant.

When offered the option, motorists will choose an American-made fuel that is creating jobs, curbing oil dependence, and cutting prices at the pumps—E15.





RFA CONTINUES TO OVERCOME  
THE OBSTACLES ON THE  
ROAD TOWARDS E15.

**FE WHEN**

ing, discharge any static electricity build up  
ouching your bare hand to a metal  
urface away from the nozzle.

ot re-enter your vehicle while gasoline  
s pumping. Re-entry could cause  
static electricity build up.

**ATTENTION**

**E15**  
Up to 15% ethanol

Use only in

- 2001 and newer passenger vehicles
- Flex-fuel vehicles

Don't use in other vehicles, boats, or  
gasoline-powered equipment. It may cause  
damage and is prohibited by Federal law.

**Minimum Fueling  
Volume 4 Gallons;**

**Dispensing Less May  
Violate Federal Law**

	Regular e-15	Regular	Regular Plus	e-85 Flex Fuel	e-30 Flex Fuel
CASH	1.159	3.469	3.589	2.999	3.399
CREDIT	1.159	3.469	3.589	2.999	3.399
\$ Price per gallon (including tax)					

	90	87	89	E-85 FLEX FUEL	E-30 FLEX FUEL
MINIMUM OCTANE RATING (RHM/D METHOD)					
PUSH HERE					

Today, more than 40 model year 2012  
and 2013 vehicles include E15 in the  
fuel recommendation section of the  
owner's manual.



9-78 Driving and Operation

However, some gasol  
only the minimum am  
additive required to m  
Environmental Protec  
regulations. To help  
injectors and intake  
and avoid problems  
injectors or valves, to  
that is advertised as  
Detergent Gasoline.  
TOP TIER label on m  
ensure gasoline meet  
detergency standards  
by the auto coming  
marketers providing  
Detergent Gasoline o  
www.toptiergas.com

For customers who d  
TIER Detergent Gasol  
one bottle of GM Fuel  
Treatment PLUS per 25  
tank at every engine  
can help clean deposits  
injectors and intake va  
System Treatment PLUS is the only  
gasoline additive recommended by  
General Motors. It is available at

Gasolines containing ox  
such as ethers and etha  
and reformulated gasol  
might be available in y  
We recommend that you  
gasolines, if they comply with the  
specifications described earlier.  
However, E85 (85% ethanol) and  
other fuels containing more than  
15% ethanol must not be used in  
vehicles that were not designed for  
those fuels.

not reformulated for low  
emissions can contain an  
oxidant-inhibitor, a synthetic coolant  
methodical cleaning of your engine

The world is  
renewable



# STAKING OUT THE GLOBAL MARKETPLACE

As with so many other sectors, from cars to computers and communications, the development, production and sales of biofuels are global in their sweep and scope.

Two nations – the U.S. and Brazil – are the major export powerhouses. In fact, the U.S. has been the lowest-cost producer of ethanol in 2010, 2011 and much of 2012. The world's leading importers of ethanol are 11 countries and regions: Canada, the European Union, Nigeria, the Philippines, Jamaica, Singapore, Japan, South Korea, Taiwan, Oman, and the United Arab Emirates. While these countries currently account for more than 90 percent of total world imports, emerging markets include Mexico and Peru.

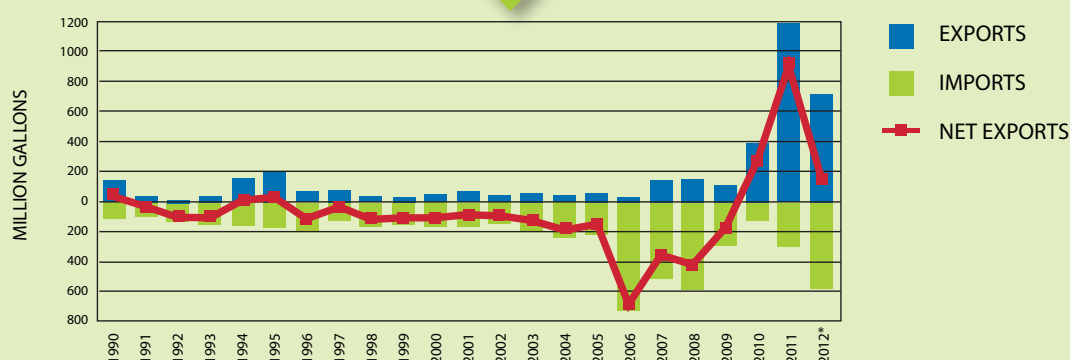
Currently, the U.S. ethanol industry leads the world not only in the production and use of biofuels, but also in exporting ethanol as well as livestock feed co-products such as distillers grains. U.S. ethanol's success in the worldwide marketplace has helped to secure and sustain the growth of domestic ethanol production from all sources. While a stable and growing domestic market is an important priority for U.S. ethanol producers, the industry is increasingly focused on export opportunities for fuel and feed—especially because the U.S. market remains artificially constrained at 10 percent unless changes are made.

## U.S. Exports: Long-term Trends Are Upward

Exporting a record 1.2 billion gallons of biofuels during 2011, as well as nearly 8 million metric tons of distillers grains, U.S. ethanol's emergence on the world market resulted from the confluence of its own cost-competitiveness, a constrained domestic market, and rising world sugar prices that made Brazil less competitive.

Suffering from a severe drought, U.S. ethanol exports declined to an estimated 725 million gallons during 2012. Still, 2012 marked the second-highest level of exports on record and exports are expected to grow in the years ahead, as more consumers around the world recognize the benefits of clean, affordable renewable fuels. Canada was the top destination for U.S. ethanol in 2012. Like the U.S., Canada has a national renewable fuel standard that helps drive demand for biofuels. The European Union was the second-leading market for U.S. ethanol. Exports to Europe were used to help meet the EU Renewable Energy Directive (RED), which requires increased use of renewable fuels through 2020. A number of U.S. grain-based ethanol producers have met or exceeded the RED program's

HISTORIC U.S. ETHANOL EXPORTS AND IMPORTS



Source: U.S. Dept. of Commerce

\*Estimated

THE ETHANOL INDUSTRY IS PROVIDING A  
STABLE MARKET FOR FARMERS' PRODUCTS  
AND GOOD JOBS IN ITS BIOREFINERIES.

sustainability requirements. There is no doubt that exports will play a key role in the future of our industry. America has already gained a strong foothold in the global ethanol trade, but there is room for significant growth in exports. Markets around the world remain untapped and the global thirst for energy seems almost unquenchable. To that end, RFA commissioned Informa Economics, Inc. to conduct a large-scale study to identify potential future export opportunities and provide the industry with a roadmap to begin developing new markets. The study, which was distributed to all RFA members, concluded that ethanol demand will grow steadily in key countries and regions around the world, and that U.S. producers may be well positioned to increase exports to those areas.

Export opportunities abound in Southeast Asia, a region where very little ethanol is used today, but interest in renewable fuels (and liquid fuel demand) is picking up steam. For example, Thailand in 2012 revised its energy plan to encourage greater production of FFVs and “eco-cars” capable of running on E20. The program further provides an incentive for gasoline stations to begin selling E20. Vietnam, Japan, South Korea, the Philippines and other Pacific Rim nations also offer significant opportunity.

GLOBAL ETHANOL PRODUCTION (MILLIONS OF GALLONS)\*

Continent	Africa	Asia	Australia	Europe	North and Central America	South America
2012	42	952	71	1,179	13,768	5,800

Source: F.O. Lichts

Nation	Brazil	Canada	China	European Union
2012	5,557	449	555	1,139

\*Estimated



# ON THE ENVIRONMENTAL FRONT: CLEAN, GREEN ENERGY

**U.S.** ethanol is a reliable source of clean, green energy. Energy and water use by the industry continues to drop dramatically, as new technologies are adopted and greater efficiencies are realized. Less energy use means less greenhouse gas (GHG) emissions, meaning ethanol's carbon footprint continues to shrink as oil's footprint grows larger.

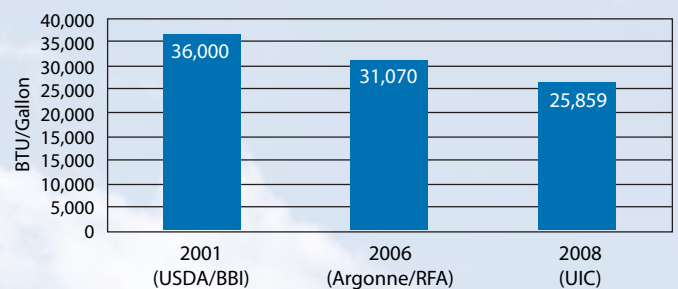
Because ethanol is made from renewable, plant-based feedstocks, the carbon dioxide (CO<sub>2</sub>) released during a vehicle's fuel combustion is "recycled" during the growth of ethanol feedstocks. Using ethanol in place of gasoline helps to reduce direct CO<sub>2</sub> emissions by 34-59% given today's technology.

Peer-reviewed, published research shows corn ethanol reduces GHG emissions by 48-59% when compared directly to gasoline, and by 34% even when highly uncertain, hypothetical land use emissions are added.

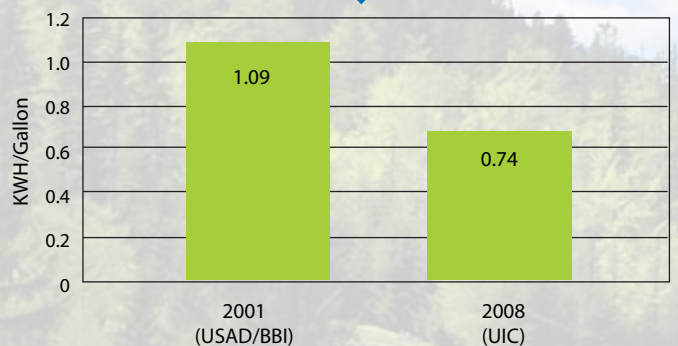
Ethanol does more than lower GHG emissions. Ethanol contains 35% oxygen, resulting in more complete fuel combustion and thereby reducing harmful tailpipe pollution. Non-toxic, water soluble and quickly biodegradable, ethanol also displaces the use of toxic gasoline components such as benzene, a carcinogen.

**FACT:** Using the newest version of the GREET model developed by the U.S. Department of Energy, the 13.3 billion gallons of ethanol produced in 2012 reduced greenhouse gas (GHG) emissions from on-road vehicles by 33.4 million tons. That's equivalent to removing 5.2 million cars and pickups (comparable to the number of registered vehicles in the entire state of Michigan) from the road for one year.

DRY MILL THERMAL ENERGY USE PER GALLON OF ETHANOL PRODUCED



DRY MILL ELECTRICITY USE PER GALLON OF ETHANOL PRODUCED

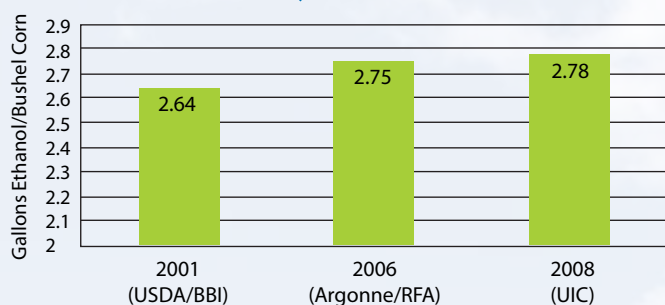




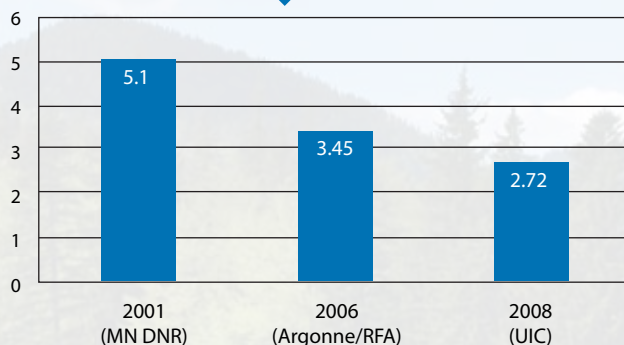
USING ETHANOL IN PLACE OF  
GASOLINE HELPS TO REDUCE DIRECT  
CO<sub>2</sub> EMISSIONS BY 35-49 PERCENT.



DRY MILL ETHANOL YIELD (UNDENATURED) PER CORN BUSHEL PROCESSED



WATER USE PER GALLON OF ETHANOL PRODUCED



### Improving Efficiencies in Production

These facts illustrate the industry's progress in improving its energy production balance and reducing its natural resource consumption:

- The average dry mill uses less than 26,000 BTUs of thermal energy to produce a gallon of ethanol, compared to the 77,000 BTUs of energy contained in the gallon.
- The average dry mill ethanol biorefinery uses 2.7 gallons of water per gallon of production—that's 47 percent less water per gallon than in 2001. 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. (*Waterfootprint.org*)
- Ethanol yields 1.9 to 2.3 units of energy for every one unit of energy used in production, according to recent USDA research.

As the industry commercializes advanced and cellulosic ethanol, its benefits to the environment will improve further, protecting the planet and future generations.



# TAKING THE FUTURE NOW: ADVANCED ETHANOL

Only five short years ago, the Renewable Fuel Standard (RFS) was amended to include specific volumetric requirements for cellulosic biofuels. Today, the cellulosic biofuels industry has facilities and projects under development in more than 20 states representing billions of dollars in private investment. Enzyme costs are down 80% in the last decade, and **cellulosic biofuels are now being produced for \$2.00 per gallon or less.**

According to the Sandia National Lab, the U.S. could produce 75 billion gallons per year of cellulosic biofuels by 2030. To put that number into perspective, the U.S. consumed approximately 134 billion gallons of gasoline in 2011. The U.S. advanced biofuels industry is ramping up to compete in the \$2.5 trillion global clean energy marketplace. Compliance with the RFS is forecast to create up to 800,000 jobs by 2022.



## MASCOMA

DEMONSTRATION FACILITY  
ROME, NY

- Began operations in 2008
- Feedstock: Multiple feedstock (biomass)
- 15 operations staff
- Estimated completion in 2014/2015
- 150 construction jobs
- 60 permanent operations jobs
- Up to 500 indirect jobs



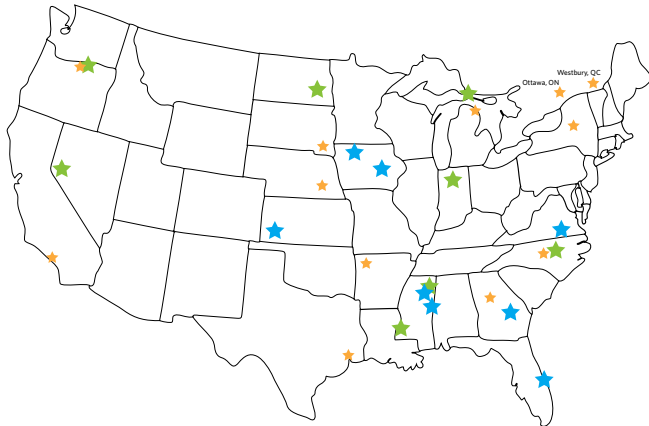
## ABENGOA BIOENERGY

COMMERCIAL FACILITY  
HUGOTON, KS

- Estimated completion in 2013
- Feedstock: Agricultural residues, dedicated energy crops, prairie grasses
- 300 construction jobs
- 65 operators
- 120 external biomass procurement jobs

## COMPLIANCE WITH THE RFS IS FORECAST TO CREATE UP TO 800,000 JOBS BY 2022.

(Bio Economic Research Associates, *U.S. Economic Impact of Advanced Biofuels Production: Perspectives to 2030*)



### LOCATION OF U.S. CELLULOSIC BIOFUELS FACILITIES

KEY	★	PILOT/DEMONSTRATION FACILITY
	★	COMMERCIAL FACILITY (UNDER CONSTRUCTION/COMMISSIONING)
	★	COMMERCIAL FACILITY (ENGINEERING STAGE)

Source: Advanced Ethanol Council, *Cellulosic Biofuels Industry Progress Report 2012-2013*



## INEOS BIO

COMMERCIAL FACILITY  
VERO BEACH, FL

- Estimated startup in 2013
- Feedstock: Vegetative and yard waste, municipal solid waste
- 400 direct and indirect jobs, 60 full time



## FULCRUM BIOENERGY

DEMONSTRATION FACILITY  
DURHAM, NC

- Began operations in 2009
- Estimated completion in 2014
- Feedstock: Synthesis Gas
- 430 engineering and construction jobs
- 53 permanent jobs



# TAKING THE FUTURE NOW: ADVANCED ETHANOL

## ADVANCED ETHANOL COUNCIL

Formed in collaboration with RFA in 2011, the Advanced Ethanol Council (AEC) has quickly become the leading voice for next generation ethanol in Washington, in the marketplace, and around the globe.

The AEC represents worldwide leaders in the effort to develop and commercialize advanced ethanol fuels, ranging from cellulosic ethanol made from dedicated

energy crops, forest residues and agricultural waste to advanced ethanol made from municipal solid waste, algae and other feedstocks.

The AEC is the only advanced biofuel advocacy group with the singular purpose of promoting advanced ethanol fuels and technologies.

**ABENGOA BIOENERGY**



**CLARIANT**



THE AEC IS THE ONLY ADVANCED BIOFUEL  
ADVOCACY GROUP WITH THE SINGULAR  
PURPOSE OF PROMOTING ADVANCED  
ETHANOL FUELS AND TECHNOLOGIES.



**Officers:**

Chairman: William Brady, CEO, Mascoma

Vice Chairman: Christopher Standlee, Executive Vice President, Abengoa Bioenergy

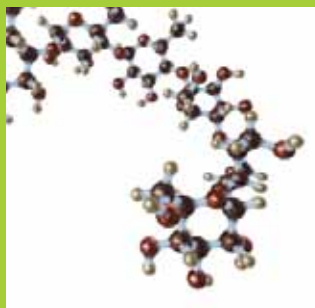
Vice Chairman: Vincent Chornet, CEO, Enerkem

Executive Director: Brooke Coleman

The AEC is laser-focused on promoting forward-looking and consistent public policy and a more open marketplace for renewable fuels.

The Council is committed to:

- (1) promoting comprehensive energy tax reform to provide investors and innovators with the predictability and confidence they need to build first-of-kind facilities;
- (2) defending and facilitating the implementation of the Renewable Fuel Standard (RFS), which establishes core market demand for cellulosic biofuels; and,
- (3) increasing market access for ethanol to allow the industry to compete on a level playing field with petroleum-based fuels.



# RFA — ACTION, ADVOCACY AND ANALYSIS

Since 1981, the Renewable Fuels Association (RFA) has been the authoritative voice of the ethanol industry. Our members are committed to helping our country become cleaner, safer, and more energy independent. In creating a forum for ethanol producers and industry stakeholders, RFA has achieved an unequalled record of results through action, advocacy and analysis.

With the most experienced staff in the industry, 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.

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

## RFA Members Make a Difference

The success the RFA has been able to achieve on behalf of American ethanol producers is due to the unparalleled support from its members companies. Large and small, publicly-traded and farmer-owned, the diverse group of RFA members provides unequalled expertise in developing policy positions and pushing market initiatives that thoughtfully and meaningfully expand the production and use of ethanol domestically and abroad.

It is the unique structure of the RFA Board of Directors, where **each member is given a vote**, and its **committees that help foster open dialogue**, that ultimately results in positions and practices that have led to more than 30 years of success.

## COMMITTEES

### 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 focuses heavily on fuel specifications and standards such as ASTM International, National Conference of Weights and Measures, ISO, Canadian General Standards Board, and other international fuel requirements. RFA members and staff continue to be recognized for their meaningful contributions within these standards developing organizations. Technical committee members can, without hesitation, count on the RFA committee chairs and staff to properly inform and answer fuel quality, storage and handling concerns that impact the day to day operations of ethanol biorefineries. Fuel quality concerns, engine research projects, international blending practices, and state and regional regulations are just a sampling of the topics this committee monitors.

### Co-Products Committee

The ethanol industry produces more than just renewable fuel. Biorefineries across the country also produce distillers grains, corn distillers oil, corn gluten, CO<sub>2</sub> and other products. The RFA Co-Products Committee focuses on issues relevant to all ethanol co-products, from research and educational programs to regulatory issues and trade. Members are involved daily in the production and marketing of co-products, making this committee an excellent forum for exchanging ideas and information.





### Plant & Employee Safety Committee

The safety of ethanol production, transportation, consumer use and emergency response is a priority for the RFA Plant & Employee Safety Committee. This committee has been extraordinarily proactive by working with Federal, state and local governments as well as industry partners, to bring much needed attention to hazardous materials regulations and other safety requirements. RFA Committee members are kept up-to-date on Department of Transportation HAZMAT regulations, OSHA compliance standards, and continuous education opportunities. Safety Committee members support the development of nationwide ethanol safety seminars; these learning opportunities are offered free of charge to emergency responders through the Ethanol Emergency Response Coalition (EERC) and the TRANSCAER® initiatives. Safety throughout the process of getting ethanol from production facilities to consumers without incident is a high priority for RFA members. Evaluating the entire distribution chain for improvements to safety and handling are a hot topic. Currently, ethanol is transported using all current transportation modes: truck, railcar, barge, ship, and pipeline.



### Environmental Compliance Committee

Existing to examine and provide guidance on the myriad of environmental regulations ethanol production facilities face, the priority of the RFA Environmental Compliance Committee is to protect the environment while providing a forum for navigating the complex regulations imposed on this industry. Topics that routinely lead the agenda include Environmental Protection Agency's (EPA) Greenhouse Gas Tailoring Rule, Mandatory Greenhouse Gas Reporting Requirements and the readiness of facilities for regulatory inspections. This committee's highly technical discussion is extraordinarily valuable in helping familiarize producers with environmental regulations relevant to the ethanol industry and ensuring their facilities remain compliant while offering ethanol as the greatest solution to reduce greenhouse gases worldwide.



# RFA: EDUCATION AND OUTREACH

The RFA is consistently bringing to bear the expertise and resources of its membership and staff in order to expand markets, educate specially targeted audiences as well as American consumers, and create an environment conducive to the industry's continued growth and evolution.

## EERC

Nothing surpasses safety as a priority for the RFA and its members. Whether it is employees at ethanol biorefineries or our neighbors in the communities we serve, the ethanol industry takes its safety responsibility seriously. The RFA has led the industry's efforts to educate the nation's first responders on the characteristics of ethanol-related incidents and provide them with the information, tools, and training they need to respond swiftly and effectively in the unlikely event of an incident. Since December of 2010, the RFA has hosted 32 Ethanol Safety Seminars in 16 states; but this is only the beginning of a broader effort. RFA, under the EERC banner, is updating the training materials used by thousands of emergency responders to ensure the information is the most accurate and up-to-date educational experience for fire departments, police, emergency management technicians, environmental cleanup contractors, and more. Keep up-to-date on the Ethanol Emergency Response Coalition information at [www.ethanolresponse.com](http://www.ethanolresponse.com).



## TRANSCAER®

To continue ethanol safety education and to prepare for an ethanol related emergency should one occur, the RFA will be partnering with TRANSCAER® in 2013 and 2014 to host an Ethanol Training Tour from border to border and ocean to ocean! TRANSCAER® is a voluntary national outreach effort that focuses on assisting communities to prepare for and respond to possible hazardous material transportation incidents. TRANSCAER® members may consist of volunteer representatives from the chemical manufacturing, transportation, distribution, hazardous material storage and handling, emergency response and preparedness, and related service industries as well as the government. The RFA joined TRANSCAER® in 2008 as part of a strategic plan to expand our reach into the safety community and build influential partnerships promoting safety information across the nation.

Through this partnership, the importance of ethanol safety and incident preparedness will have the ability to reach a greater number of emergency responders, public safety agencies, and HAZMAT teams. The 2013-2014 TRANSCAER Ethanol Training Tour hopes to reach nearly 40,000 emergency responders in all 50 states with the best emergency response information available on ethanol and ethanol blended fuels. For more information see [www.transcaer.com](http://www.transcaer.com).

## Expanding Ethanol Understanding and Appreciation

As ethanol, including E15, becomes a critical part of the American fuel supply, new groups of engine operators are running on ethanol blends. From auto enthusiasts to boaters to motorcyclists, more Americans are driving more miles on ethanol and learning its benefits firsthand.

Car owners most frequently list their car mechanic as their most trusted source of information. To that end RFA is working with Bobby Likis, an automotive industry expert





whose 41-year career in automotive service as a technician, owner of an award-winning automotive service center, and nationally recognized host of CarClinic, a nationwide radio talk show, to directly educate a very influential audience, car mechanics. Given that Bobby speaks the language of car technicians, he is uniquely qualified to bust the myths that surround ethanol's impact on car engines and serve as a trustworthy source of information and answers.

In addition, RFA continues to support the Sturgis Motorcycle Rally at the Buffalo Chip in Sturgis, South Dakota. This brings ethanol straight to the motorcycle community. This partnership has become more successful and its outreach deeper each of the four years RFA has participated.

### In Your Community

RFA, working closely with its member companies, is taking ethanol's positive message into local communities. Throughout Minnesota and Iowa, movie theaters are featuring pre-movie ads that highlight the job-creating, environment-enhancing benefits of local ethanol producers and educating audiences of the engine benefits and cost savings associated with ethanol blends. State Fairs and summer parades offer great opportunities for outreach. RFA has created a mobile education center which allows member companies an easy, highly visible central point for promoting American biofuels.



### In Washington

The ethanol industry may not have the bottomless pockets of funding that the petroleum industry enjoys, but that doesn't stop RFA from using its resources in strategic ways to target advocacy messages to key policy makers. In 2012, RFA continued its successful gas price advertising with updated, more powerful data on cost savings. The campaign was complemented as well by the early messaging to lay the groundwork for promoting and protecting the Renewable Fuel Standard as it comes under increasing attacks on Capitol Hill.





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Randy Klein	Director of Membership
Missy Ruff	Market Development Manager
Robert White	Director of Market Development



The Renewable Fuels Foundation is dedicated to meeting the education, 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 toward 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.

### RFF Officers

Mike Jerke  
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Bob Sather  
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## Associate Members

AgMotion, Inc.  
[www.agmotion.com](http://www.agmotion.com)

AGRA Industries, Inc.  
[www.agraind.com](http://www.agraind.com)

Agri-Fine Corporation  
[www.agri-fine.com](http://www.agri-fine.com)

AgStar Financial Services, ACA  
[www.agstar.com](http://www.agstar.com)

Alfa Laval, Inc.  
[www.alfalaval.com](http://www.alfalaval.com)

BBi International  
[www.bbibiobiofuels.com](http://www.bbibiobiofuels.com)

BetaTec Hop Products, A Division of John I Haas, Inc.  
[www.betatechopproducts.com](http://www.betatechopproducts.com)

BrownWinick  
[www.brownwinick.com](http://www.brownwinick.com)

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[www.buckman.com](http://www.buckman.com)

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[www.christiansoncpa.com](http://www.christiansoncpa.com)

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[www.chsinc.com](http://www.chsinc.com)

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[www.cobank.com](http://www.cobank.com)

Codexis, Inc.  
[www.codexis.com](http://www.codexis.com)

Colorado Corn Growers Association  
[www.coloradocorn.com](http://www.coloradocorn.com)

Consolidated Grain & Barge Co.  
[www.cgb.com](http://www.cgb.com)

CSX Transportation Inc.  
[www.csx.com](http://www.csx.com)

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[www.eco-energyinc.com](http://www.eco-energyinc.com)

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[www.edeniq.com](http://www.edeniq.com)

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[www.fageninc.com](http://www.fageninc.com)

Farm Credit Services of America  
[www.fcsamerica.com](http://www.fcsamerica.com)

FCStone, LLC  
[www.intlfcstone.com](http://www.intlfcstone.com)

Fermentis - S.I. Lesaffre  
[www.fermentis.com](http://www.fermentis.com)

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[www.fremontind.com](http://www.fremontind.com)

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Genencor, A Danisco Division  
[www.genencor.com](http://www.genencor.com)

Gold Eagle Co.  
[www.gold eagle.com](http://www.gold eagle.com)

GROWMARK, Inc.  
[www.growmark.com](http://www.growmark.com)

Hartland Fuel Products, LLC  
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Hawkeye Gold, LLC  
[www.hawkgold.com](http://www.hawkgold.com)

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[www.huschblackwell.com](http://www.huschblackwell.com)

Hydro-Klean, LLC  
[www.hydro-klean.com](http://www.hydro-klean.com)

ICM, Inc.  
[www.icminc.com](http://www.icminc.com)

Illinois Corn Marketing Board  
[www.ilcorn.org](http://www.ilcorn.org)

Indiana Corn Marketing Council  
[www.incorn.org](http://www.incorn.org)

Innospec Fuel Specialties  
[www.innospecinc.com](http://www.innospecinc.com)

Inspectorate America Corporation  
[www.inspectorate.com](http://www.inspectorate.com)

Iowa Corn Growers Association  
[www.iowacorn.org](http://www.iowacorn.org)

Iowa Renewable Fuels Association  
[www.iowarfa.org](http://www.iowarfa.org)

Kansas Corn Commission  
[www.ksgrains.com](http://www.ksgrains.com)

KATZEN International, Inc.  
[www.katzen.com](http://www.katzen.com)

Kenan Advantage Group, Inc.  
[www.thekag.com](http://www.thekag.com)

Kentucky Corn Promotion Council  
[www.KYCorn.org](http://www.KYCorn.org)

Kinder Morgan Inc.  
[www.kne.com](http://www.kne.com)

Lallemand Biofuels & Distilled Spirits  
[www.ethanoltech.com](http://www.ethanoltech.com)

Lansing Ethanol Services, LLC  
[www.lansingtradegroup.com](http://www.lansingtradegroup.com)

Leonard, Street and Deinard  
[www.leonard.com](http://www.leonard.com)

Lincoln Energy Solutions  
[www.lincolnergysolutions.com](http://www.lincolnergysolutions.com)

LLL Transport, Inc.  
[www.LLLTransport.com](http://www.LLLTransport.com)

Michael Best & Friedrich, LLP  
[www.michaelbest.com](http://www.michaelbest.com)

Midwest Laboratories, Inc.  
[www.midwestlabs.com](http://www.midwestlabs.com)

Minnesota Bio-Fuels Association  
[www.mnbiobiofuels.org](http://www.mnbiobiofuels.org)

Minnesota Corn Research & Promotion Council  
[www.mncorn.org](http://www.mncorn.org)

Monsanto Co.  
[www.monsanto.com](http://www.monsanto.com)

Motiva Enterprises LLC  
[www.motivaenterprises.com](http://www.motivaenterprises.com)

Murex LLC  
[www.murexltl.com](http://www.murexltl.com)

Nalco Company  
[www.Nalco.com](http://www.Nalco.com)

National Corn Growers Association  
[www.ncga.com](http://www.ncga.com)

National Sorghum Producers  
[www.sorghumgrowers.com](http://www.sorghumgrowers.com)

Natural Resource Group, LLC  
[www.nrginc.com](http://www.nrginc.com)

Nebraska Corn Board  
[www.nebraskacorn.org](http://www.nebraskacorn.org)

Noble Americas Corp.  
[www.thisisnoble.com](http://www.thisisnoble.com)

NorFalco Inc.  
[www.norfalco.com](http://www.norfalco.com)

North Dakota Corn Council  
[www.ndcorn.org](http://www.ndcorn.org)

Novozymes North America, Inc.  
[www.novozymes.com](http://www.novozymes.com)

Ohio Corn Marketing Program  
[www.ohiocorn.org](http://www.ohiocorn.org)

PhibroChem  
[www.phibrochem.com](http://www.phibrochem.com)

Pinnacle Engineering Inc.  
[www.pineng.com](http://www.pineng.com)

Pioneer, A DuPont Company  
[www.pioneer.com](http://www.pioneer.com)

PRX Geographic, Inc.  
[www.prxgeo.com](http://www.prxgeo.com)

Renewable Products Marketing Group  
[www.rpmgllc.com](http://www.rpmgllc.com)

RSM McGladrey  
[www.mcgladrey.com](http://www.mcgladrey.com)

South Dakota Corn Utilization Council  
[www.sdcorn.org](http://www.sdcorn.org)

Syngenta  
[www.syngenta.com](http://www.syngenta.com)

TMO Renewables LTD  
[www.tmo-group.com](http://www.tmo-group.com)

TransMontaigne Product Services  
[www.transmontaigne.com](http://www.transmontaigne.com)

Tranter PHE, Inc  
[www.tranter.com](http://www.tranter.com)

Trinity Rail Group, LLC  
[www.trinityrail.com](http://www.trinityrail.com)

U.S. Development Group  
[www.us-dev.com](http://www.us-dev.com)

U.S. Water Services  
[www.uswaterservices.com](http://www.uswaterservices.com)

Union Pacific Railroad  
[www.up.com](http://www.up.com)

Union Tank Car Company  
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[www.verenium.com](http://www.verenium.com)

Victaulic  
[www.victaulic.com](http://www.victaulic.com)

Weaver  
[www.weaverllp.com](http://www.weaverllp.com)

Western Ethanol Company, LLC  
[www.westernethanol.com](http://www.westernethanol.com)

## Supporting Members

Agricultural Retailers Association  
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Bemidji (MN) State University  
[www.bemidjistate.edu](http://www.bemidjistate.edu)

Bismarck State College  
[www.bsc.nodak.edu](http://www.bsc.nodak.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)

Great Falls Development Authority, Inc.  
[www.gfdevelopment.org](http://www.gfdevelopment.org)

Iowa Central Community College  
[www.iccc.cc.ia.us](http://www.iccc.cc.ia.us)

Iowa Central Fuel Testing Laboratory  
[www.iowafuellab.com](http://www.iowafuellab.com)

Jamestown/Stutsman Development Corp.  
[www.growingjamestown.com](http://www.growingjamestown.com)

Kansas Association of Ethanol Processors  
[www.ethanolkansas.org](http://www.ethanolkansas.org)

Kentucky Energy & Environment Cabinet - Department for Energy  
[www.eec.ky.gov](http://www.eec.ky.gov)

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)

Milano the New School  
[www.newschoool.edu/milano](http://www.newschoool.edu/milano)

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/forestry](http://www.cfr.msstate.edu/forestry)

Missouri Corn Growers Association  
[www.mocorn.org](http://www.mocorn.org)

Morton College  
[www.morton.edu](http://www.morton.edu)

National Corn-to-Ethanol Research Center  
[www.ethanolresearch.com](http://www.ethanolresearch.com)

Nebraska Corn Growers Association  
[www.necga.org](http://www.necga.org)

New Jersey Gasoline C-Store Automotive Association (NJGCA)  
[www.njgca.org](http://www.njgca.org)

REDDI  
[www.reddionline.org](http://www.reddionline.org)

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  
[www.spriinc.org](http://www.spriinc.org)

Texas Renewable Energy Industries Association  
[www.treia.org](http://www.treia.org)

United Association  
[www.ua.org](http://www.ua.org)

Water Assurance Technology Energy Resources  
[www.watere3.com](http://www.watere3.com)

Western Iowa Tech Community College - The National Boiler Training and Renewable Fuels Institute  
[www.boiler.witcc.com](http://www.boiler.witcc.com)

Wisconsin Pipe Trades Association  
[www.wipipetrades.org](http://www.wipipetrades.org)

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