



DAILY NEWS SUMMARY

Saturday, June 20, 2008 through Monday, June 23, 2008

National

1. Floods Create Opening For Brazilian Ethanol

Wall Street Journal

http://online.wsj.com/article/SB121417445135695255.html?mod=googlenews_wsj

“Floods in the Midwest are making coast-bound shipments of American corn ethanol nearly impossible, creating an opportunity for ethanol from Brazil. Demand might really jump if a 54-cents-per-gallon import tariff on Brazilian sugarcane ethanol is removed, which may spark another wave of investment in the South American nation. Two U.S. senators proposed such legislation this month as a way to lower ethanol prices in many parts of the country.”

2. Obama Camp Closely Linked With Ethanol

New York Times

<http://www.nytimes.com/2008/06/23/us/politics/23ethanol.html?hp>

“When VeraSun Energy inaugurated a new ethanol processing plant last summer in Charles City, Iowa, some of that industry’s most prominent boosters showed up. Leaders of the National Corn Growers Association and the Renewable Fuels Association, for instance, came to help cut the ribbon — and so did Senator Barack Obama. Mr. Obama is running as a reformer who is seeking to reduce the influence of special interests. But like any other politician, he has powerful constituencies that help shape his views. And when it comes to domestic ethanol, almost all of which is made from corn, he also has advisers and prominent supporters with close ties to the industry at a time when energy policy is a point of sharp contrast between the parties and their presidential candidates.”

Regional

3. Gas costs fuel local surge of ethanol

Rochester (NY) Democrat and Chronicle

<http://www.democratandchronicle.com/apps/pbcs.dll/article?AID=/20080623/BUSINESS/806230325/1001>

“The bad news: The average cost of a gallon of regular gasoline in New York is pushing \$4.30. The good news: Those ridiculous gas prices are helping to rev up parts of the Rochester area's alternative energy industry. Since starting operation in late 2007, the Western New York Energy LLC ethanol plant in Orleans County has been producing at about 10 percent above its design capacity of 50 million gallons a year, said Vice President Michael Sawyer.”

4. Local pumps join ethanol-blend trend

Florida Times-Union

http://www.jacksonville.com/tu-online/stories/062308/bus_293335203.shtml

“Ethanol in Florida? Isn't that supposed to be for those farm states where cornfields stretch as far as the eye can see? Just last year, that would have been the case in Florida, which was an untapped market for ethanol. But government regulations and market forces have primed the pump for ethanol - a biofuel made from corn or sugar- to become a standard feature at gas stations everywhere in Florida.”

5. Farmers fear ethanol bill

Denver (CO) Daily News

<http://www.thedenverdailynews.com/article.php?aID=925>

“A federal bill that aims to cut fuel prices by reducing the tax on importing ethanol has caught the ire of some members of the local farm community. The Ethanol Importation Facilitation Act, which was introduced last week by Colorado U.S. Reps. Mark Udall, D-Eldorado Springs, and Ed Perlmutter, D-Golden, would lower the import tax for ethanol from 54 cents per gallon to 45 cents per gallon. However, some worry that lowering the tax would hurt the domestic ethanol industry.”

6. Flooding muddies push for ethanol

Detroit (MI) News

<http://detnews.com/apps/pbcs.dll/article?AID=/20080623/AUTO01/806230375>

“Massive flooding in the Midwest has ruined millions of acres of crops, spurring record corn prices and raising serious questions about whether the United States can meet new requirements for using corn-based biofuels in the nation's cars and trucks. A sweeping federal energy bill signed into law in December requires the production of 9 billion gallons of biofuels this year, nearly all of it corn-based ethanol, up from 6.5 billion in 2007. Backed by farm state politicians and President Bush, the increase in biofuels output drew strong support as a way to reduce the nation's dependence on foreign oil with a homegrown alternative. But a backlash is emerging.”

7. Ethanol moderates cost of gasoline

Capital Press

<http://www.capitalpress.info/main.asp?SectionID=67&SubSectionID=782&ArticleID=42445&TM=30757.58>

“Increased ethanol production has been blamed for higher food prices, but without it, Americans would be paying even more for gasoline, according to the Department of Energy. ‘If we had not been blending ethanol into gasoline, gasoline prices would be between 20 cents per gallon to 35 cents per gallon higher,’ said Alexander Karsner, DOE assistant secretary, citing data from the department's Energy Information Administration.”

8. Ethanol exec says credit crunch doomed projects

News Gazette

http://www.news-gazette.com/news/local/2008/06/21/ethanol_exec_says_credit_crunch_doomed

“The president of Heartland Ethanol said the credit crunch – not the economics of ethanol – was the main reason his company abandoned efforts to build seven ethanol plants in Illinois, including one in Royal. ‘The main issue was the ability to finance the project with bank loans,’ Heartland Ethanol President Walker R. Filbert said. “That came crashing down when the housing industry had its meltdown last August. We've been digging out from that for 10 months for all businesses, let alone ethanol plants.”

9. Corn prices hurt ethanol industry

Des Moines (IA) Register

<http://www.desmoinesregister.com/apps/pbcs.dll/article?AID=/20080621/NEWS10/806210330/-1/SPORTS09>

“Iowa's ethanol industry is being squeezed by high corn prices that are partly due to the estimated 3.3 million acres of crops that have been destroyed by spring floods, Iowa Secretary of Agriculture Bill Northey said Friday. ‘These kinds of prices are not profitable to produce ethanol at the current ethanol price,’ Northey said at a taping of Iowa Public Television's ‘Iowa Press.’ ‘There will probably be decisions of whether they want to keep processing or not at these prices.’”

10. Proposed ethanol plant may make dioxins

Chicago Sun-Times

<http://www.post-trib.com/news/1018579,dioxins.article>

“A class of highly toxic pollutants may be produced by one of the garbage-to-ethanol plants being proposed in Lake County, though the company says it can virtually eliminate their escape into the environment. Genahol-Powers I LLC is one of two garbage-to-ethanol companies pursuing a 20-year waste disposal contract with the Lake County Municipal Solid Waste District.”

11. Catching an amber wave

Boston Globe

http://www.boston.com/news/local/vermont/articles/2008/06/22/catching_an_amber_wave/?p1=Well_MostPop_Emailed6

“Spurred to action by sharply rising prices for transportation and animal feed, and surging consumer demand for locally grown foods, more farmers in New England are deciding to grow grains. In the last five years, the number of Vermont farms producing traditional Midwestern crops, including wheat, rye, barley, oats, soybeans, and corn, has increased from a handful to as many as 15, and more are poised to join them, according to a state estimate. This spring, at a statewide grain-growers meeting where farmers formed a new group, the Northern Grain Growers Association, organizers had to turn away would-be participants after 80 to 100 people showed up, including some from Massachusetts and New Hampshire.”

12. Shucking corn as a biofuel

Chicago Sun-Times

<http://www.suntimes.com/technology/guy/1017810,CST-FIN-ecol22.article>

“A startup company that is renting space at the Illinois Institute of Technology is looking past corn to find biofuels, especially as ethanol production gets much of the blame for skyrocketing grocery prices. ‘We think we have an alternative to first-generation ethanol processing, which is so dependent on corn,’ said Mark Lenhart, co-founder and chief

operating officer of AlterVia Fuels. Lenhart believes corn ethanol is unfairly being blamed for single-handedly raising the price of food worldwide. The answer? Turning non-food plants into renewable biofuels.”

13. Florida, Osceola play role in ethanol-fuel research

Orlando (FL) Sentinel

<http://www.orlandosentinel.com/community/news/doctorphillips/or-plant2208jun22,0,240694.story>

“The University of Florida has been involved in biomass-to-energy research for about 20 years, but new research at UF by Dr. Lonnie Ingram is looking at a variety of plant waste products suitable for "cellulosic" ethanol production. The ethanol produced is the same; the source and process are different, allowing more efficient use of organic wastes for fuel production. The University of Florida is also involved in a project in Osceola County that will help answer some questions about nonfood-crop sources for ethanol production. The research began this spring in Destiny, the development at the south end of the county. Dr. Zane Helsel is trying out varieties of sweet sorghum to see what might be adapted to Florida growing conditions.”

14. The Problem With Ethanol

Tampa Bay (FL) Highlands Today

<http://www2.highlandstoday.com/content/2008/jun/22/problem-ethanol/>

“Imagine. We could grow our own fuel. We could make alcohol from corn and potatoes and soybeans, and our cars could run on it. It burns cleaner. It's cheaper. It's renewable. It's made in America. But it turns out, ethanol isn't the miracle fuel it's cracked up to be.”

Floods Create Opening For Brazilian Ethanol

By KENNETH RAPOZA

SÃO PAULO, Brazil -- Floods in the Midwest are making coast-bound shipments of American corn ethanol nearly impossible, creating an opportunity for ethanol from Brazil.

Demand might really jump if a 54-cents-per-gallon import tariff on Brazilian sugarcane ethanol is removed, which may spark another wave of investment in the South American nation. Two U.S. senators proposed such legislation this month as a way to lower ethanol prices in many parts of the country.

"I would say that without any tariff, we would export around two billion liters (527.7 million gallons) more this year and with a lower tariff, around one billion," said Antonio Padua Rodrigues, technical manager at Brazil's Union of Sugarcane Industries, or Unica.

Brazil expects to export around 4.8 billion liters of ethanol this year, according to industry consultants at Datagro in São Paulo, up from 3.5 billion exported last year. Most of the fuel is sent to the U.S., either directly to U.S. ports, or indirectly through the Caribbean, which enjoys duty-free access to the U.S.

"Over the last 10 days, the ethanol business has completely changed," said Martinho Seiiti Ono, director of Sociedade Corretora de Alcool, or SCA, one of Brazil's largest ethanol brokerages. "Cargill, ED&F Man and other trading companies are all inquiring" because of the floods and rising U.S. ethanol prices.

Corn ethanol is selling in the U.S. for \$2.80 a gallon, compared with about \$1.87 per gallon for Brazilian ethanol, made from sugarcane. As corn prices have risen this year, Brazilian ethanol has become more competitive, despite the tariff.

Sens. Dianne Feinstein (D., Calif.) and Judd Gregg (R., N.H.) introduced a measure this month to reduce the tariff on Brazilian ethanol, something Unica has pushed for since the U.S. began requiring blending of ethanol into gasoline in 2006. The U.S. corn-ethanol lobby is likely to oppose it.

The tariff "makes no sense, given the record oil prices and the limited supplies of domestic ethanol," Sen. Feinstein said at the time.

Any sign that the U.S. is likely to cut its tariff on ethanol might mean a second wave of investing in the Brazilian industry.

"When the U.S. signals that it is cutting tariffs, you would see additional expansion beyond what has already been announced to meet that demand," he said.

Obama Camp Closely Linked With Ethanol

When [VeraSun Energy](#) inaugurated a new ethanol processing plant last summer in Charles City, Iowa, some of that industry's most prominent boosters showed up. Leaders of the National Corn Growers Association and the Renewable Fuels Association, for instance, came to help cut the ribbon — and so did Senator [Barack Obama](#).

Then running far behind Senator [Hillary Rodham Clinton](#) in name recognition and in the polls, Mr. Obama was in the midst of a campaign swing through the state where he would eventually register his first caucus victory. And as befits a senator from Illinois, the country's second largest corn-producing state, he delivered a ringing endorsement of ethanol as an alternative fuel.

Mr. Obama is running as a reformer who is seeking to reduce the influence of special interests. But like any other politician, he has powerful constituencies that help shape his views. And when it comes to domestic ethanol, almost all of which is made from corn, he also has advisers and prominent supporters with close ties to the industry at a time when energy policy is a point of sharp contrast between the parties and their presidential candidates.

In the heart of the Corn Belt that August day, Mr. Obama argued that embracing ethanol “ultimately helps our national security, because right now we’re sending billions of dollars to some of the most hostile nations on earth.” America’s oil dependence, he added, “makes it more difficult for us to shape a foreign policy that is intelligent and is creating security for the long term.”

Nowadays, when Mr. Obama travels in farm country, he is sometimes accompanied by his friend [Tom Daschle](#), the former Senate majority leader from South Dakota. Mr. Daschle now serves on the boards of three ethanol companies and works at a Washington law firm where, according to his online job description, “he spends a substantial amount of time providing strategic and policy advice to clients in renewable energy.”

Mr. Obama’s lead advisor on energy and environmental issues, Jason Grumet, came to the campaign from the National Commission on Energy Policy, a bipartisan initiative associated with Mr. Daschle and [Bob Dole](#), the Kansas Republican who is also a former Senate majority leader and a big ethanol backer who had close ties to the agribusiness giant [Archer Daniels Midland](#).

Not long after arriving in the Senate, Mr. Obama himself briefly provoked a controversy by flying at subsidized rates on corporate airplanes, including twice on jets owned by

Archer Daniels Midland, which is the nation's largest ethanol producer and is based in his home state.

[Jason Furman](#), the Obama campaign's economic policy director, said Mr. Obama's stance on ethanol was based on its merits. "That is what has always motivated him on this issue, and will continue to determine his policy going forward," Mr. Furman said.

Asked if Mr. Obama brought any predisposition or bias to the ethanol debate because he represents a corn-growing state that stands to benefit from a boom, Mr. Furman said, "He wants to represent the United States of America, and his policies are based on what's best for the country."

Mr. Daschle, a national co-chairman of the Obama campaign, said in a telephone interview on Friday that his role advising the Obama campaign on energy matters was limited. He said he was not a lobbyist for ethanol companies, but did speak publicly about renewable energy options and worked "with a number of associations and groups to orchestrate and coordinate their activities," including the Governors' Ethanol Coalition.

Of Mr. Obama, Mr. Daschle said, "He has a terrific policy staff and relies primarily on those key people to advise him on key issues, whether energy or [climate change](#) or other things."

Ethanol is one area in which Mr. Obama strongly disagrees with his Republican opponent, Senator [John McCain](#) of Arizona. While both presidential candidates emphasize the need for the United States to achieve "energy security" while also slowing down the carbon emissions that are believed to contribute to global warming, they offer sharply different visions of the role that ethanol, which can be made from a variety of organic materials, should play in those efforts.

Mr. McCain advocates eliminating the multibillion-dollar annual government subsidies that domestic ethanol has long enjoyed. As a free trade advocate, he also opposes the 54-cent-a-gallon tariff that the United States slaps on imports of ethanol made from sugar cane, which packs more of an energy punch than corn-based ethanol and is cheaper to produce.

"We made a series of mistakes by not adopting a sustainable energy policy, one of which is the subsidies for corn ethanol, which I warned in Iowa were going to destroy the market" and contribute to inflation, Mr. McCain said this month in an interview with a Brazilian newspaper, O Estado de São Paulo. "Besides, it is wrong," he added, to tax Brazilian-made sugar cane ethanol, "which is much more efficient than corn ethanol."

Mr. Obama, in contrast, favors the subsidies, some of which end up in the hands of the same oil companies he says should be subjected to a windfall profits tax. In the name of helping the United States build "energy independence," he also supports the tariff, which

some economists say may well be illegal under the [World Trade Organization](#)'s rules but which his advisers say is not.

Many economists, consumer advocates, environmental experts and tax groups have been critical of corn ethanol programs as a boondoggle that benefits agribusiness conglomerates more than small farmers. Those complaints have intensified recently as corn prices have risen sharply in tandem with oil prices and corn normally used for food stock has been diverted to ethanol production.

“If you want to take some of the pressure off this market, the obvious thing to do is lower that tariff and let some Brazilian ethanol come in,” said C. Ford Runge, an economist specializing in commodities and trade policy at the Center for International Food and Agricultural Policy at the [University of Minnesota](#). “But one of the fundamental reasons [biofuels](#) policy is so out of whack with markets and reality is that interest group politics have been so dominant in the construction of the subsidies that support it.”

Corn ethanol generates less than two units of energy for every unit of energy used to produce it, while the energy ratio for sugar cane is more than 8 to 1. With lower production costs and cheaper land prices in the tropical countries where it is grown, sugar cane is a more efficient source.

Mr. Furman said the campaign continued to examine the issue. “We want to evaluate all our energy subsidies to make sure that taxpayers are getting their money’s worth,” he said.

He added that Mr. Obama favored “a range of initiatives” that were aimed at “diversification across countries and sources of energy,” including cellulosic ethanol, and which, unlike Mr. McCain’s proposals, were specifically meant to “reduce overall demand through conservation, new technology and improved efficiency.”

On the campaign trail, Mr. Obama has not explained his opposition to imported sugar cane ethanol. But in remarks last year, made as President Bush was about to sign an ethanol cooperation agreement with his Brazilian counterpart, Mr. Obama argued that “our country’s drive toward energy independence” could suffer if Mr. Bush relaxed restrictions, as Mr. McCain now proposes.

“It does not serve our national and economic security to replace imported oil with Brazilian ethanol,” he argued.

Mr. Obama does talk regularly about developing switchgrass, which flourishes in the Midwest and Great Plains, as a source for ethanol. While the energy ratio for switchgrass and other types of cellulosic ethanol is much greater than corn, economists say that time-consuming investments in infrastructure would be required to make it viable, and with corn nearing \$8 a bushel, farmers have little incentive to shift.

Ethanol industry executives and advocates have not made large donations to either candidate for president, an examination of campaign contribution records shows. But they have noted the difference between Mr. Obama and Mr. McCain.

Brian Jennings, a vice president of the American Coalition for Ethanol, said he hoped that Mr. McCain, as a presidential candidate, “would take a broader view of energy security and recognize the important role that ethanol plays.”

The candidates’ views were tested recently in the [Farm Bill](#) approved by Congress that extended the subsidies for corn ethanol, though reducing them slightly, and the tariffs on imported sugar cane ethanol. Because Mr. McCain and Mr. Obama were campaigning, neither voted. But Mr. McCain said that as president he would veto the bill, while Mr. Obama praised it.

Gas costs fuel local surge of ethanol

Matthew Daneman

The bad news: The average cost of a gallon of regular [gasoline](#) in New York is pushing \$4.30.

The good news: Those ridiculous [gas prices](#) are helping to rev up parts of the Rochester area's alternative energy industry.

Since starting operation in late 2007, the Western New York Energy [LLC](#) ethanol plant in Orleans County has been producing at about 10 percent above its design capacity of 50 million gallons a year, said Vice President Michael Sawyer.

High fuel costs, and General Motors Corp.'s announcement last week that it is reassigning more engineers from pickups and SUVs to development of fuel-efficient cars mean the automaker's fuel cell research center in Honeoye Falls is expecting greater attention from the bosses.

"There will be continual pressure to have this happen faster, of course," said lab director Matthew Fronk.

Greater Rochester [Enterprise](#), the nonprofit economic development organization, has pegged alternative energy as one of the region's four potential growth areas and counts 33 companies in the region involved in the industry.

That industry has stood on some shaky legs in recent months. Massachusetts' Mascoma Corp. dropped plans to build an ethanol plant in [Greece](#). California-based Cilion Inc. has reportedly axed plans for a similar plant in Caledonia, Livingston County.

New York's nascent ethanol industry in particular is dealing with the resultsof both good and bad timing, said GRE Managing Director Mark Peterson. High gas prices have made ethanol attractive, but corn prices also have gone up — in part because of high fuel costs, he said.

Local pumps join ethanol-blend trend

By David Bauerlein, The Times-Union

Throughout Northeast Florida, signs are popping up on gas station pumps informing motorists the gasoline contains up to 10 percent ethanol.

Ethanol in Florida? Isn't that supposed to be for those farm states where cornfields stretch as far as the eye can see?

Just last year, that would have been the case in Florida, which was an untapped market for ethanol.

But government regulations and market forces have primed the pump for ethanol - a biofuel made from corn or sugar- to become a standard feature at gas stations everywhere in Florida.

For motorists, the arrival of gas with a 10 percent mix of ethanol will cause a slight drop in gas mileage. A study by the American Coalition for Ethanol found an average 2 percent decline in mileage when it tested the E10 blend in vehicles.

Boat owners will need to check whether their vessels' fuel tanks and hoses are designed for ethanol, which is more corrosive than conventional gasoline. In the worst-case scenario for a small number of older boats, ethanol will corrode fiberglass fuel tanks and wreck the engines.

Despite those drawbacks, ethanol has gained favor from federal and state lawmakers because it burns cleaner than standard gasoline, offers a homegrown fuel supply offsetting foreign oil and costs less to make than gasoline. The U.S. Department of Energy estimates gas prices would be 20 to 35 cents higher per gallon if not for the use of ethanol across the nation.

An energy bill passed by the Legislature will require all gas sold in Florida to contain 10 percent ethanol by 2010.

"It's going to happen way before that," said Jim Smith, president of the Florida Petroleum Marketers and Convenience Store Association.

He said oil companies already are moving quickly to add ethanol because it's a way for them to demonstrate a "green" approach to the environment.

The high cost of oil also makes ethanol an economical choice for oil companies, said Jay Levenstein, deputy commissioner for the state Department of Agriculture and Consumer Affairs. He said when oil goes above \$55 to \$60 per barrel, it's cost-effective to use ethanol as a fuel source. In the past year, oil has doubled in price to more than \$130 a barrel.

In addition, petroleum producers get a 5.1-cent-per-gallon federal tax credit for each gallon of E10 gasoline they blend.

Florida and Georgia both require stations to post notices on pumps when gasoline contains ethanol. Consumers who want to buy ethanol-free gasoline can still make that choice in the Jacksonville area by searching for pumps that don't have an ethanol sign on them. However, those will become harder to find because the companies selling wholesale gas at Jacksonville's four terminals have either switched to ethanol blends or expect to make the change this summer.

The Chevron Products Co. terminal switched to ethanol blend in April for the gasoline it sells to retailers. The BP terminal made the switch June 1. The Hess terminal started providing the ethanol blend to Hess stations earlier this year. Colonial Oil Industries, which uses the NuStar Energy terminal in Jacksonville, plans to shift to E10 by August.

The shift at the wholesale level will affect retailers, too, causing them to sell E10 gas. Buzz Hoover, president of Gate Biofuels, said Gate stations are making the transition. Gate announced last year it wants to build its own Jacksonville terminal where it would mix ethanol with gasoline. The terminal would let Gate take advantage of the federal tax credit.

The state agriculture department also is pushing for Florida to seek a piece of the biofuel market with the Farm to Fuel program. Florida would focus on crops other than corn by targeting cellulosic ethanol made from sugarcane, grasses, and forest products.

Florida motorists consume 8.7 billion gallons of gasoline a year, so if 10 percent of that is converted to ethanol, it would create an 870 million-gallon market for biofuels. Levenstein said instead of shipping in ethanol from other parts of the country, Florida-grown crops can help supply the state's energy needs.

Farmers fear ethanol bill

Gene Davis

A federal bill that aims to cut fuel prices by reducing the tax on importing ethanol has caught the ire of some members of the local farm community.

The Ethanol Importation Facilitation Act, which was introduced last week by Colorado U.S. Reps. Mark Udall, D-Eldorado Springs, and Ed Perlmutter, D-Golden, would lower the import tax for ethanol from 54 cents per gallon to 45 cents per gallon. However, some worry that lowering the tax would hurt the domestic ethanol industry.

“I don’t think we want to jeopardize the people who locally produce ethanol by bringing it in cheaper overseas,” said Byron Weathers, president of the Colorado Corn Growers Association. “If they would bring in foreign ethanol that was way cheaper, I think it would break all of our local ethanol costs.”

Lower gas prices?

“It’s not that we want to stick it to our corn growers, but we want to be able to import sugar and other ethanol options from overseas,” said Leslie Oliver, spokesperson for Perlmutter. “While it’s not the total solution, it could have immediate impact on lowering gas prices in the short term.”

Legislation was recently passed that reduces government subsidies to farmers who grow corn for ethanol production. The bill didn’t address the tax on importing ethanol from other countries, however, so the tariff remains the same. Oliver said the proposed bill seeks to “restore the balance” between the tariffs and subsidies to avoid any kind of trade barrier with foreign countries.

“If we had that trade barrier it could actually increase the price of fuel,” said Oliver

Unusual ally

Udall’s and Perlmutter’s proposed bill has an unusual ally, the Heritage Foundation. Although the conservative-leaning think tank believes there isn’t the proper current technology to make ethanol production practical, they support the idea of lowering the tariff on importing the alternative energy source.

“If you want ethanol, get it where it can be produced more cheaply,” said David Kreutzer, a senior policy analyst at the Heritage Foundation. “We are more for free trade than we are against ethanol.”

What's next

The bill will be next be assigned to a government committee. If the bill passes through the committee, it will move onto the House to be voted on.

Flooding muddies push for ethanol

David Shepardson

WASHINGTON -- Massive flooding in the Midwest has ruined millions of acres of crops, spurring record corn prices and raising serious questions about whether the United States can meet new requirements for using corn-based biofuels in the nation's cars and trucks.

A sweeping federal energy bill signed into law in December requires the production of 9 billion gallons of biofuels this year, nearly all of it corn-based ethanol, up from 6.5 billion in 2007.

Backed by farm state politicians and President Bush, the increase in biofuels output drew strong support as a way to reduce the nation's dependence on foreign oil with a homegrown alternative.

But a backlash is emerging.

In April, Texas Gov. Rick Perry asked the Environmental Protection Agency to cut the 2008 mandate in half, citing steep increases in feed prices for cattle and rising food prices.

Last month, 24 Republican senators, including John McCain, the presumed Republican presidential nominee, sent a letter to the [EPA](#) saying it needs to revisit the mandate, also because of the rise in food prices, among other factors.

The U.S. Department of Agriculture said Friday it expected food prices to rise 5 percent in 2008, the highest increase since 1990, when oil prices spiked in the run-up to the Persian Gulf War. That estimate is expected to go up after the flooding to take into account reduced production.

The Grocery Manufacturers Association blames ethanol, calling the fuel diversion "unsustainable."

But the redirection of food for fuel is only going to increase: By 2015, the United States must produce 15 billion gallons of biofuels, and 21 billion gallons by 2022.

The damage to the corn crop -- as much as 4 percent of total U.S. corn production, or 3.3 million acres, could be lost -- is pushing up ethanol prices as well. The wholesale price of ethanol rose 40 cents a gallon in the last month as corn prices have doubled in the past year to an all-time high of nearly \$8 a bushel.

Some energy analysts now say the government may have to suspend the biofuels mandate because at those prices it's not profitable to make ethanol, and because 400 million gallons of production has been lost because of the floods.

Congress won't pull back

Bob Dineen, president of the Renewable Fuels Association, said ethanol is still a good deal.

"Abandoning our commitment to ethanol and biofuels, as some would suggest we do, would do nothing to provide meaningful relief from high grain prices today or in the future," he said. "It would absolutely force the price of gas through the roof and require the import of more record-high foreign oil."

Congress isn't likely to pull back on the biofuel mandates in an election year, despite the continuing rise in food prices and the challenges that now exist because of the floods. Additionally, support remains strong in farm states to leave the mandates in place.

Sen. Charles Grassley, R-Iowa, said no decisions should be made on the mandate until after the harvest is complete. He and other farm state members of Congress argue that the Agriculture Department should allow more planting in 35 million acres of conservation land as a way to help ease the price increases.

That won't help Texas cattle ranchers today. Every 1 cent increase in corn prices boosts feed prices for the Texas cattle industry by \$6 million. Perry asked the EPA to move quickly because Texas is the nation's largest beef producer and one of the top 10 poultry, egg and dairy producers.

The EPA, which has the authority to suspend the biofuels mandate, is studying Texas' request, said EPA spokesman Jonathan Shrader.

Corn fuels concerns

Corn is the United States' biggest agriculture product -- 13.1 billion bushels worth \$52 billion were produced in 2007, twice the value of soybeans, the second largest crop. Michigan is the nation's 11th biggest producer of corn, according to the Agriculture Department.

The state's 2.35 million acres of corn have largely been spared the devastation caused by floods in nearby Indiana, Illinois and Iowa, but Michigan farmers may not benefit from the steep hike in corn prices. Many of them locked in prices at \$3 to \$4 a bushel before the harvest was planted.

The United States exports more than half of the world's corn. But more of it is going to ethanol -- 25 percent in 2007, and it will be 35 percent this year, Merrill Lynch said in a June 6 research note.

That has fueled concerns that corn is behind the big jump in worldwide food prices that have led to higher inflation and food riots in poor countries that rely on corn as a staple food source.

If that corn wasn't going into engines, Americans would be burning a lot more gasoline, according to Merrill Lynch, and oil prices would be at least 15 percent higher without biofuels.

Others, like Bruce Dale of [Michigan State University](#), an expert on ethanol, note that energy prices, especially oil, are driving much of the increase in food prices. "We've had cheap food and cheap energy for a long time," Dale said. He noted diesel fuel has jumped to \$4.70 a gallon, up \$1.88 in the last year, which also has boosted food prices.

Detroit's Big Three automakers have made a big bet on ethanol, promising to produce half of their fleets as flex-fuel vehicles by 2012, capable of running on E85, a blend made of 85 percent ethanol and 15 percent gasoline.

Automakers get credits toward meeting fuel economy requirements by building vehicles that can run on E85.

Last year, GM alone produced 759,000 flex-fuel vehicles in 11 models in the United States, said Alan Adler, a GM spokesman.

GM also has helped get E85 in more than 300 gas stations since 2005 and will have 18 flex-fuel 2009 models, Adler said.

"This is a pretty challenging time, and I don't see anybody's resolve weakening," Adler said.

Ethanol moderates cost of gasoline

Mateusz Perkowski

Increased ethanol production has been blamed for higher food prices, but without it, Americans would be paying even more for gasoline, according to the Department of Energy.

"If we had not been blending ethanol into gasoline, gasoline prices would be between 20 cents per gallon to 35 cents per gallon higher," said Alexander Karsner, DOE assistant secretary, citing data from the department's Energy Information Administration.

For refiners, ethanol was recently about \$1 per gallon cheaper than wholesale conventional gasoline, he testified at a June 12 Senate hearing on U.S. renewable fuel policy and food prices.

Though ethanol contains about 25 to 35 percent less energy than gasoline, Karsner said, it's still "cost-competitive" with gasoline.

The wholesale ethanol price will probably "remain in the mid-\$2-per-gallon range" or somewhat lower if the renewable-fuel mandate is relaxed, said Joe Outlaw, co-director of the Agricultural and Food Policy Center at Texas A&M University.

Even if the mandate is relaxed, however, ethanol production would continue to outpace the current standard because it's less expensive, he said. "This again reflects the fact that high fossil energy prices will result in high demand for ethanol as a fuel extender."

In terms of food prices, the impact of the U.S. biofuels mandate - 9 billion gallons this year and 36 billion by 2022 - has been greatly exaggerated, Karsner said.

High oil prices, droughts in Australia, growing demand in developing nations and a decline in global agricultural research have contributed to food inflation as well, he said.

The 45 percent increase in global food commodities in the past year, as tracked by the International Monetary Fund, would have been only slightly lower if U.S. policy hadn't stimulated biofuel production, said Joseph Glauber, chief economist for the USDA.

Absent the increase in biofuel production from corn and soybeans, the global food index would still have risen by about 42 percent, he said.

"At this time, the expansion in biofuel production in the United States would appear to be

a relatively modest contributor to food price inflation globally and in the United States," Glauber said.

While higher prices for corn and other grains can translate directly into higher prices for bread, milk and eggs, the current jump in food prices is more attributable to global weather and production patterns, as well as greater labor costs, Outlaw said.

As for meat, Outlaw has "detected no statistically significant effect of corn on retail meat prices, to date," he said. Even so, the livestock industry's inability to pass feed costs along is resulting in massive financial losses, which will affect consumers in the longer run, he said.

"If current market conditions persist, meat supplies will eventually decline due to producer attrition and capacity reduction, which will lead to higher retail prices for meats," he said.

In the world's poorest countries, higher food prices correlate with lower caloric intake, and thus hunger, Joachim von Braun, director of the International Food Policy Institute, said in submitted testimony.

To offset the effect biofuel production has on food prices, von Braun advocated for more investment in agricultural productivity research, promotion of trade policies that reduce market distortion and "transaction costs" as well as more food programs for the hungry.

"It is essential to simultaneously invest in energy and other agricultural technologies to soften the trade-offs" between food and fuel, he said.

Ethanol exec says credit crunch doomed projects

ROYAL – The president of Heartland Ethanol said the credit crunch – not the economics of ethanol – was the main reason his company abandoned efforts to build seven ethanol plants in Illinois, including one in Royal.

"The main issue was the ability to finance the project with bank loans," Heartland Ethanol President Walker R. Filbert said. "That came crashing down when the housing industry had its meltdown last August. We've been digging out from that for 10 months for all businesses, let alone ethanol plants." Heartland Ethanol had planned to build a 100-million-gallon ethanol plant on 65 acres north of Royal. But the company announced Monday it was pulling the plug on that project as well as projects in Griggsville, Vandalia, Gridley, Waverly, Ransom and Mendota.

Filbert said investors in the limited liability companies will receive a percentage of assets proportional to the number of shares they hold. Only 7.5 percent of Heartland Ethanol is owned by local investors in Pike, Adams and Champaign counties, and the Champaign County investors number "fewer than 10," he said.

As for what will happen to the 65 acres north of Royal, Filbert said Heartland Ethanol "might hold onto the property or swap with investors."

But he said Heartland Ethanol's majority owners – all based in the Knoxville, Tenn., area – "are collectively getting out of the ethanol business."

Filbert said some Illinois ethanol plants – including One Earth Energy's plant in Gibson City – have gotten off the ground. As for proposed plants that haven't gotten that far, "my opinion is those are going nowhere," he said.

No bank is going to lend money for an ethanol plant unless there are circumstances that guarantee a profit, he said.

"We had been waiting nine months expecting the storm to pass, and the storm got worse," he said.

Filbert said he blamed the situation largely on Federal Reserve Board policies that he felt led to an economic slowdown and later to "craziness" in the commodities market. Once corn broke through the \$7-a-bushel barrier, "it started getting goofy," he said. Herb Osterbur, who sold Heartland Ethanol the ground for the Royal plant, said he's farming the ground under a year-to-year arrangement with the company. He said he was disappointed by news the plant won't be built.

"I know a lot of people are," Osterbur said. "I hadn't heard anything in quite a while."

Corn prices hurt ethanol industry

By JASON CLAYWORTH

Iowa's ethanol industry is being squeezed by high corn prices that are partly due to the estimated 3.3 million acres of crops that have been destroyed by spring floods, Iowa Secretary of Agriculture Bill Northey said Friday.

"These kinds of prices are not profitable to produce ethanol at the current ethanol price," Northey said at a taping of Iowa Public Television's "Iowa Press." "There will probably be decisions of whether they want to keep processing or not at these prices."

Iowa's crop loss is around \$3 billion, Northey said. The estimate, from the National Agriculture Statistics Service, shows that 10 percent of Iowa's corn and 20 percent of soybeans were not planted or were washed out by floods that have affected three-quarters of the state.

Several ethanol plants are temporarily out of commission due to the floods, Northey said.

While it's likely that some fields may be replanted, yields will not likely be as great as hoped, Northey said.

Farmers can replant and still be covered by crop insurance, but coverage levels drop with each passing day, and late-planted crops could face the threat of frost in the fall, ag officials said earlier this week.

The flooding also damaged some livestock facilities, but the bigger problem for producers is the cost of feed, he said.

High corn prices, now more than \$7 a bushel, will eat up ethanol profits, but Northey maintained that the fuel remains vitally important to the state.

"The alternative is to look back to those times in the 1980s where we had piles of corn building every year and we were dependent upon the government to buy \$1.80 corn," Northey said. "I don't think anybody wants to go back there."

Proposed ethanol plant may make dioxins

By Erik Potter

A class of highly toxic pollutants may be produced by one of the garbage-to-ethanol plants being proposed in Lake County, though the company says it can virtually eliminate their escape into the environment.

Genahol-Powers 1 LLC is one of two garbage-to-ethanol companies pursuing a 20-year waste disposal contract with the Lake County Municipal Solid Waste District. The company plans to convert the county's garbage into ethanol through a "gasification" process in which the solid waste is turned into a mixture of carbon monoxide and hydrogen gas by cooking the garbage at high temperatures in a low-oxygen atmosphere. That gas, called synthesis gas, is then converted into ethanol by bacteria in a fermentation tank.

A byproduct created from the burning of municipal garbage is the class of chemicals called chlorinated dioxins. Dioxins are toxic, cancer-causing pollutants regulated by the U.S. Environmental Protection Agency.

The process Genahol-Powers 1 plans to use won't be burning the garbage in the traditional sense. Creating the synthesis gas requires a low-oxygen atmosphere, which minimizes the formation of dioxins, though doesn't prevent them entirely, according to Jim Gaddy, professor emeritus of chemical engineering at the University of Arkansas and president of Bioengineering Resources Inc., the company that developed the gasification process Genahol-Powers 1 is proposing to use.

More dioxins can form from the ash created from the burning garbage when it cools. But Ken Boser, technical director for Genahol-Powers 1, says that by using a liquid solution that coats the ash, cools it and keeps oxygen from reaching it, that any dioxins produced will be minimal and will be trapped in the ash. That ash, Boser said, can safely be disposed of in a landfill.

At a public meeting before the Lake County Solid Waste Management District, Boser repeatedly said no dioxins would be produced in the gasification process. He later clarified his statement, saying virtually no dioxins would be created and that none would be released into the air or wastewater.

Environmentalists' concerns

Emissions data from Bioengineering Resources' pilot plant in Fayetteville, Ark., shows low levels of one of the most toxic forms of dioxin in the ash and filter water at the plant. A large class of 75 different dioxins was found in the water and air emissions.

But Boser stresses the Arkansas pilot plant was focusing on making the process work and did not include the water treatment and air pollution control equipment a Lake County plant would have.

"I'm convinced that we will not have any effects on the health of the people because of what does come out" of the plant, Boser said.

Sandy O'Brien, chair of the Dunelands Sierra Club chapter, isn't as sure. The amount of pollution produced from a given ton of garbage depends on what's in that garbage. "It could be that there were not a lot of (pollutants) in the sample they burned," O'Brien said.

"That's always a concern," Gaddy said, saying the pilot plant would run Lake County garbage through and have the emissions independently tested.

Of the five years the pilot gasification plant has been running, it converted garbage to ethanol for six months; the rest of the time using wood waste, corn stover, or other biomass, according to Gaddy. The municipal garbage used was shipped in from California.

But even if the California garbage is similar to Lake County's garbage, O'Brien said, the small amount of pollution created is unnecessary.

O'Brien prefers the competing garbage-to-ethanol company, Indiana Ethanol Power LLC, which promises to produce no pollution in its conversion process. Indiana Ethanol Power uses a lower temperature, water-based process that captures any gases produced and uses them elsewhere in the system.

"I don't know why you wouldn't go with a company that has no emissions," she told the solid waste board Thursday night.

The solid waste district decided to continue contract talks with both companies, as well as Allied Waste, a landfill company.

Catching an amber wave

By Jenna Russell

RANDOLPH, Vt. - Set in the green hills of this dairy farming state, where a single white church spire rises in the distance, the Beidler family farm looks - and sounds - like an archetype of Vermont agriculture. Twice a day, farmer Brent Beidler calls his cows into the shingled barn for milking, a regular cycle that links him to the state's long dairy tradition.

But later this summer, in a sign of changing times across the region's rolling farmland, Beidler will do something new. He will climb into his big red combine to harvest an American staple rarely seen in a century in the Green Mountain State, wheat.

Spurred to action by sharply rising prices for transportation and animal feed, and surging consumer demand for locally grown foods, more farmers in New England are deciding to grow grains.

In the last five years, the number of Vermont farms producing traditional Midwestern crops, including wheat, rye, barley, oats, soybeans, and corn, has increased from a handful to as many as 15, and more are poised to join them, according to a state estimate. This spring, at a statewide grain-growers meeting where farmers formed a new group, the Northern Grain Growers Association, organizers had to turn away would-be participants after 80 to 100 people showed up, including some from Massachusetts and New Hampshire.

"Vermont has primarily been a dairy state, and in some ways, that's our commodity - Kansas is wheat, and Vermont is milk," said Heather Darby, a crops specialist with the University of Vermont Extension who is helping to develop grain farming in the state. "Now there's a need and a demand for a product that has not been grown here for a long time, or not at all."

Amber waves of grain were not always unfamiliar here. In the 1800s, when there were no supermarket bread aisles and families fed themselves, small wheat plots and local mills for grinding flour were common, Darby said. At one time, when the United States stretched no further west than the Mississippi River, Vermont was known as "the bread basket of America" - though the state never grew enough wheat to meet its own needs. Disease and pests were so rampant, farmers saw a good wheat crop only once every five years. So as Midwestern farming developed, and grains became easy to ship, Vermonters gave up growing them. For most of the last century, wheat crops disappeared, but for a few fields tended by scattered homesteaders.

The resurgence of interest in regional grain-growing picked up momentum about five years ago, as Vermont dairy farmers faced escalating costs for grain shipped from the Midwest to feed their cows. Costs have doubled while supplies have grown more scarce, farmers said, because of a host of factors, including crop failures in the American heartland, increasing global food demand, unprecedented fuel costs, and a shift from grain to corn production in the United States, driven by subsidies for ethanol, a fuel made from corn.

In the last two years, other factors have further fueled demand for local wheat, especially the sudden, explosive growth of the local food, or "localvore," movement. Increasingly, local food is seen as a safer, more reliable source. More and more Vermonters, from all walks of life, are turning to locally grown foods, farmers and bakers said, creating new markets for, among other products, Vermont-grown wheat for making flour and bread. At an annual farm festival in Randolph this spring, a lunchtime crowd cheered at the announcement that the flour used to make the rolls came from wheat grown half a mile away at the Beidler farm.

"We have people calling us all the time to make sure we're still growing wheat, that we're going to be grinding it, because they're counting on us," Beidler said.

In Western Massachusetts, the same enthusiasm greeted Ben and Adrie Lester, owners of Wheatberry bakery in Amherst, when they planted 4 acres of wheat this spring, to fill what they saw as a hole in the local food supply, after watching flour prices triple in three years. Next year, they plan to let the public buy shares in their wheat fields, in return for a portion of the crop. In Northern Maine, farmers have started growing organic wheat in the last five years and will harvest as many as 1,000 acres this year, said Peter Sexton, a crops specialist at the University of Maine Extension.

New England will never match Midwestern grain production, where massive farms in top-producing states like Kansas and North Dakota turn out hundreds of millions of bushels of wheat every year. In Vermont, about 500 acres are planted with wheat, Darby said. But more grains are planted every year.

Beidler and his wife, Regina, bought their Vermont farm in 1998, converted to organic dairy, becoming part of the farmer-owned Organic Valley cooperative, and planted their first quarter-acre of grains four years ago. This summer, they are growing 5 acres of wheat, its small green shoots still grasslike after two months in the ground, and 20 acres of corn, millet, potatoes, and beans, plus canola and camelina to press for cooking oil. Next year, they expect to double the size of their wheat crop.

Spencer and Jennifer Blackwell started growing wheat, buckwheat and rye on leased land in Burlington in 2004, and plan to expand their grain production on a 50-acre vegetable farm they recently bought in Middlebury through a land trust conservation program.

"It's impractical here but not impossible," said Spencer Blackwell.

"There are more of us than I can count on two hands doing it in the state now, and we're learning and getting better every year."

The learning curve for growing grains is steep, with few resident specialists to rely on, farmers said. Combines and other equipment are expensive and hard to find - the Beidlers started out with a 1950s combine from Iowa - and hard to share, because their size makes them difficult to transport. The state's hilly, rocky terrain is difficult to manage, and grain storage facilities and mills, for grinding wheat into flour, are practically nonexistent. Even harder to overcome, Vermont's humid climate fosters rot and diseases, and lowers the protein and gluten content of locally grown wheat, which can be a problem for bakers. To develop seeds better-suited to East Coast conditions, farmers like Jack Lazor, a veteran dairy producer and grain grower with 50 acres of wheat near the Canadian border, are test-growing dozens of heirloom varieties. In a good year, he can harvest 50 bushels of wheat per acre, enough to mill 2,500 pounds of whole wheat flour.

Proponents are also developing other uses for grains.

A small biofuel refinery is already up and running in Vermont, and tests are underway to see if canola, soybeans, and sunflowers could be grown and made into biofuels, to be used by farmers to run their equipment, said Allen Matthews, farm enterprise coordinator for the University of Vermont's Center for Sustainable Agriculture.

Farmers say there is a potent sense of possibility around grain growing - an optimistic feeling that has been as scarce as wheat for many decades in the region's agriculture. In Vermont in the last decade, Matthews said, dairy farms have disappeared at a rate of 80 to 100 every year, throwing the pastoral landscape into jeopardy.

"Creating local food systems creates opportunities for more farms, and that's exciting, because what we've seen in Vermont and everywhere else is decline," Darby said. "It gives people hope when you talk about things coming alive again."

Shucking corn as a biofuel

SCI-TECH SCENE | New company hopes to turn non-food plants into ethanol

BY [SANDRA GUY](#) Sun-Times Columnist

A startup company that is renting space at the Illinois Institute of Technology is looking past corn to find biofuels, especially as ethanol production gets much of the blame for skyrocketing grocery prices.

"We think we have an alternative to first-generation ethanol processing, which is so dependent on corn," said Mark Lenhart, co-founder and chief operating officer of AlterVia Fuels.

Lenhart believes corn ethanol is unfairly being blamed for single-handedly raising the price of food worldwide.

But, he said, "There is no question that relying on corn as our only renewable source is not sustainable and forces us into a no-win 'food vs. fuel' debate."

The answer? Turning non-food plants into renewable biofuels.

Sugar-based ethanol

AlterVia got its start with co-founder Michael Gurin's brainstorm of an efficient and cost-effective way to dissolve cellulose -- the structure inside non-food plants such as wood waste, switch grass and corn stover -- to be converted into sugar.

Cellulose converts sunlight into energy and protects plants from bugs and diseases. The resulting sugar can be used to make ethanol, as well as food and other biofuels.

AlterVia envisions using the process to create hybrid ethanol production plants -- an existing plant using corn and an add-on building for the cellulose process.

New technology

"The technology doesn't require building \$200 million to \$300 million [production] plants," said Lenhart, a 46-year-old native of Fairfield, Iowa, who figured out that Gurin, 43, had a potential business in his technological inventions.

"We're trying to create a virtual company that relies on partnerships and setting up agreements with other companies to manage and build the production processes," Lenhart said.

The technology uses a combination of fluid and supercritical carbon dioxide to break down the cellulose from a plant and isolate it. The high-pressure carbon dioxide squeezes the cellulose out of the plant and uses enzymes to convert it to sugar.

An ethanol plant that uses the technique could use the ready supply of sugars to produce ethanol, enabling it to stop using corn as its only feedstock.

Andy Aden, senior research engineer at the National Renewable Energy Laboratory in Golden, Colo., said companies have clamored for a cellulosic biomass solution ever since President Bush called for America to break its "addiction" to Middle Eastern oil in his State of the Union speech in 2006.

Companies ranging from petroleum giants to chemical firms to agricultural businesses have started research in the field.

Research has shown that 1.3 billion tons of cellulosic biomass are available yearly in the United States.

The biomass can include switchgrass, corn husks, wheat straw and wood waste.
Gas at \$3.63 per gallon

Research shows that cellulosic ethanol, if produced at a commercial scale, would equate to \$3.63 per gallon gasoline equivalent.

The use of cellulosic biomass would not only result in environmentally sustainable fuel, but reduce the use of corn grain, Aden said.

The sticking point now is that car manufacturers are hesitant to produce more flexible fuel vehicles (FFVs) that can handle E85, a fuel that's 85 percent ethanol and 15 percent gasoline, until E85 becomes more available at the pump, he said.

AlterVia chose IIT because it offered a wet laboratory with sinks and water, and because the Near South Side university has easy access to public transportation.

"There are plenty of qualified students to be lab and research assistants here on campus," Lenhart said. "They can augment our full-time staff."

Florida, Osceola play role in ethanol-fuel research

Eleanor Foerste

You may have noticed signs at the gas station to alert you to the ethanol content of our fuel. Soon, all stations in Florida will be required to convert to 10 percent ethanol.

This move is not to support farmers. It is to reduce our dependence on foreign oil as well as reduce carbon dioxide, particulate matter and other atmospheric pollution that is harmful to our health and contributes to global warming.

Ethanol is 100 percent (200 proof) alcohol produced from distilling sugars from some type of organic matter. The first organic sources were corn. Small amounts of gasoline are required to be added to make ethanol unsafe to drink.

Corn ethanol uses feed corn, the type used for livestock, not humans. USDA released a report early this month indicating that ethanol production has increased world food prices only 3 percent. The rising cost of fuel, and therefore fertilizer and transportation, have the greatest impact on farmers and consumer food prices.

USDA also indicated that ethanol blended with gasoline has helped reduce the costs at the pump.

Corn is not the only source of sugar for ethanol production. Brazil, a world leader in ethanol production and use, produces much of its ethanol from sugar cane. Other sources include switch grass, wood waste and forest products.

The [University of Florida](#) has been involved in biomass-to-energy research for about 20 years, but new research at UF by Dr. Lonnie Ingram is looking at a variety of plant waste products suitable for "cellulosic" ethanol production. The ethanol produced is the same; the source and process are different, allowing more efficient use of organic wastes for fuel production.

The University of Florida is also involved in a project in Osceola County that will help answer some questions about nonfood-crop sources for ethanol production. The research began this spring in Destiny, the development at the south end of the county. Dr. Zane Hesel is trying out varieties of sweet sorghum to see what might be adapted to Florida growing conditions.

Sweet sorghum has lots of sugar in the stem and is generally considered well adapted to hot, dry conditions. Hesel is checking on how varieties grow in our Central Florida climate, comparing sugar production on muck with sandy soils. He will be looking at

irrigation needs including growing some without irrigation. The idea is to find sugar sources that require the smallest amounts of water, fertilizer and processing and produce the most sugar for ethanol production on a commercial scale.

Destiny is interested in crops for ethanol to provide for local energy needs. Considering transportation costs add to the cost of fuel, local sugar sources and local ethanol production and distribution have the potential to keep prices lower than gasoline.

Will your car run on ethanol? It probably already can since some local stations have ethanol blends up to 10 percent. Ethanol is available in blends with gasoline from E10 to E85. E10 is 10 percent ethanol while E85 is 85 percent. Indy cars have been using ethanol since 2006 and now use 100 percent ethanol because of the performance as well as for the environmental benefits.

Ethanol blends are higher octane than regular gas, about 100 compared to 87. You will notice a reduction in fuel economy and get fewer miles per gallon, but the engine stays cooler, runs cleaner and produces less pollution. At these prices, it is even more important to be sure your car is properly tuned, tires are properly inflated and you use good driving habits to maximize fuel economy, regardless of the type of fuel you use.

Residents, businesses, fleet managers and others interested in biofuels including ethanol and biodiesel should consider attending the upcoming Farm to Fuel Summit at the Rosen Shingle Creek in Orlando, July 30 and Aug. 1. The conference is organized by the [Florida Department of Agriculture and Consumer Services](#) to discuss research, production, distribution and use of biofuels in Florida. Discounted registration of \$250 is available through June 30 and increases to \$300 on July 1. For information and a copy of the agenda, visit www.floridafarmtofuel.com. Presentations from the first two summits are online.

The Problem With Ethanol

By Gary Pinnell

SEBRING — Imagine, they said back in the 1970s, when an Arab oil embargo sent gasoline prices skyrocketing from 25 to 50 cents per gallon.

Imagine. We could grow our own fuel. We could make alcohol from corn and potatoes and soybeans, and our cars could run on it.

It burns cleaner. It's cheaper. It's renewable. It's made in America.

But it turns out, ethanol isn't the miracle fuel it's cracked up to be.

Ethanol Retains Water

"I just purchased a fuel additive made by Sta-Bil to disperse the water that ethanol causes," says Tom Moeller, a Highlands County man who was boating in Georgia last week.

Why does Moeller's boat have water in the fuel tank?

"Alcohol attracts water," said Bobby Willis of Central Florida Yamaha in Lake Placid. "It creates a water problem in your fuel."

Now there's an irony. Ethanol attracts water, and watercraft like WaveRunners and boat motors are constantly in the water.

Yamaha, says Willis, suggests installing a 10-micron filter. "It costs about \$50. You can install it yourself. Just cut your fuel line and put it in the line."

"Ten percent ethanol is tolerable for use by WaveRunners," Willis said. "It can get more drastic, especially if you're using E85."

With the exception of BP, all major brand gas stations in Highlands County sell 10 percent ethanol. Only unbranded stations, like 7 Days, Hendricks Corner, An Foodstore and Mystik, sell gasoline without ethanol.

Ethanol Dissolves Plastic

"Ethanol can dissolve some solid materials," says a June 2006 Yamaha advisory to dealers. That includes varnish and rust on steel and corrosion on aluminum tanks. The result is contaminated fuel.

"In some cases, ethanol has been known to dissolve components of the fuel system itself," said Willis.

"Some fuel tanks and fuel lines are made of plastic, and ethanol is eating away at the plastic," said Jimmi Fredricks, service manager at Freedom Marine in Lake Placid. "It turns into a jelly, and when you get to the bottom of the fuel tank, it starts sucking it in." Larson Boats, which Fredricks sells, recommends using no ethanol at all.

"Fiberglass is the worst. If you have a fiberglass tank, you need to replace the tank. Get it out of there," Fredricks says. Engineers, who have been dealing with the ethanol problem for two years, are now starting to retrofit fuel systems with plastic that can't be dissolved by alcohol.

According to an April 9 story carried on the Dow Jones newswires, a federal class action lawsuit filed in a Los Angeles has charged ExxonMobil, Chevron, BP, Shell and other oil companies with manufacturing and selling ethanol blended gasoline that damages marine fuel tanks, engines and other components.

"The oil companies know this fuel is corrosive, but they're keeping consumers in the dark to pump up their profits," said Brian Kabateck, lead attorney on the case. "The cost to the consumer is thousands of dollars in repairs."

The suit seeks to represent owners of boats with fiberglass tanks who fueled their tanks with ethanol blended gasoline from a California retailer.

Ethanol Dissolves Gum

At the Shell convenience store on Main Street and CR 17 in Avon Park, owner Mohammed Shamim said filters on the pumps must be changed several times a week. "They're always clogging up," said Shamim.

Ask any painter: alcohol is a good paint stripper. It breaks off old varnish, gums, and resin deposited by years of gasoline sitting around in tanks. Then it turns into sticky goo, plugs filters, sticks up carburetors and fuel injectors, and causes everything from mild drops in performance to complete engine shutdown, says Matthew A. Cohen, writing for teamrsm.com.

"The ethanol found in those states' gasoline supply can cause thousands of dollars in damage to the boats," Cohen says. "Ethanol eventually pulls gums, resins and debris out of the tanks and into the engine."

Ethanol Gets Poor Gas Mileage

Another downside: ethanol is more expensive than gasoline. Since alcohol produces less energy than petroleum gasoline when burned, gas mileage is reduced by 10 to 30 percent, according to Consumer Reports, October 2006.

"To see how E85 ethanol stacks up against gasoline, Consumer Reports put one of its test vehicles, a 2007 Chevrolet Tahoe Flexible-Fuel Vehicle, through an array of fuel economy, acceleration, and emissions tests," said a Consumer Reports article. "Overall fuel economy on the Tahoe dropped from an already low 14 mpg overall to 10. In highway driving, gas mileage decreased from 21 to 15 mpg; in city driving, it dropped from 9 mpg to 7."

When Consumer Reports calculated the Tahoe's driving range, it decreased to about 300 miles on a full tank of E85 compared with about 440 miles on gasoline. So, motorists using E85 have to fill up more often.

Joe Rutigliano of Joe's Service Center in Avon Park has seen increased complaints about "check engine" lights. Most involve the car's sensors not being able to measure oxygen correctly, which he says has to do with how rapidly ethanol burns.

The sensor works with a computer that controls the ratio of air to gasoline that's inside the engine. What might be happening, Rutigliano said, is that unburned gasoline is being emitted from the engine because of the sensor malfunction.

"If you start dumping unburned gas, you're talking about damaging the catalytic converter," he said. That's at least a \$150 repair job. On some cars, it's \$1,100. This is especially true for cars built in 2003 or earlier, he said.

One customer brought in a Toyota Prius that was averaging 51 mpg. Now it's down to 40 mpg. Rutigliano is convinced it's the ethanol.

But Kelly Payne, who owns a tree care service in Sebring, believes his older car fleet can handle it just fine. He owns a 2005 Sea Pro, a 2006 pickup truck, and operates 1980s and 1990s trucks, all using unleaded gasoline. None had a noticeable drop in fuel efficiency or problems he thought were caused by ethanol.

Good And Bad News

This is from Forbes magazine: "Ethanol, once heralded as the homegrown Nicorette gum of America's oil addiction, is getting a second look from lawmakers ..."

Distilling ethanol is an energy-intensive process that often uses water, electricity generated from coal, another source of greenhouse emissions.

Which leads to an old joke about a farmer who buys land. After the closing, when it's way too late to back out, the seller says to the farmer: "Oh. By the way. You'll need water."

It takes three gallons of water to make one gallon of ethanol, according to domesticfuel.com. That's interesting news in drought-stricken Florida, where manufacturers are popping up to make ethanol.

Here's a true story, repeated in February 2007 by Tampa newspapers: Florida's first ethanol plant, U.S. EnviroFuels LCC, will need 390,000 gallons of fresh water every day to run its ethanol plant at Tampa's port. That's enough for nearly 1,500 homes, which are under once-a-day watering restrictions.

ONLINE: A History Of Ethanol

Is Your Vehicle E85 Compatible?

Check the 8th digit in the Vehicle Identification Number.

Go to www.e85fuel.com/information/vin.php

In Fords with certain engines, for instance, if the eighth digit of the VIN shows a "V" on a Ford Crown Victoria, an F-150 or Ranger pickup truck, a Lincoln Town Car, a Mazda B3000 pickup or a Mercury Grand Marquis, the car can be fueled with 15 percent ethanol.

ETHANOL DOS AND DON'TS

- Replace pre-1985 fiberglass tanks.
- Replace fuel lines, o-rings and gaskets that aren't built for ethanol.
- Inspect hose clamps and metal fittings in the fuel system for corrosion.
- Refill the fuel tank often to reduce airspace in the tank, which reduces water condensation.
- Install a fuel line water separator to eliminate water that collects in the tank.
- Use fuel additives to stop fuel from aging and oxidizing.
- Use de-emulsifying or hydrophobic additives to prevent water from homogenizing with fuel.

Never use a fuel additive that emulsifies water.

Never buy fuel that isn't clear and bright.

Do not use E10 contaminated with water without a combustion-enhancing additive.

Do not leave a near-empty fuel tank sitting for long periods of time.
