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## **Ethanol's Growing List of Enemies**

As demand for the alternative fuel drives corn prices up, an unlikely assortment of groups are uniting with the hopes of cutting government support

by Moira Herbst

### SPECIAL REPORT

Green Business

Ethanol: Too Much Hype—and Corn

Paul Hitch has spent his entire life raising cattle and hogs on a stretch of the Oklahoma panhandle he says is "flat as a billiard table." His great-grandfather started the ranch in 1884, before Oklahoma was a state, and now Hitch, 63, is preparing to pass the family business on to his two sons.

But he worries that they'll face mounting pressures in the industry, particularly because of the soaring price for corn, which the business depends on to feed the livestock. In the past year, corn prices have doubled as demand from ethanol producers has surged.

"This ethanol binge is insane," says Hitch, who's president-elect of the National Cattlemen's Beef Assn. (NCBA). "This talk about energy independence and wrapping yourself in the flag and singing God Bless America—all that's going to come at a severe cost to another part of the economy."

The ethanol movement is sprouting a vocal crop of critics. While politicians including President George W. Bush and farmers across the Midwest hope that the U.S. can win its energy independence by turning corn into fuel, Hitch and an unlikely assortment of allies are raising their voices in opposition. The effort is uniting ranchers and environmentalists, hog farmers and hippies, solar-power idealists and free-market pragmatists (see BW Online, 02/2/07, "Ethanol: Too Much Hype—and Corn").

They have different reasons for opposing ethanol. But their common contentions are that the focus on corn-based ethanol has been too hasty, and the government's active involvement—through subsidies for ethanol refiners and high tariffs to keep out alternatives like ethanol made from sugar—is likely to lead to chaos in other sectors of the economy.

"The government thinks it can pick a winner, but they should allow consumers to pick their own," says Demian Moore, senior analyst for the nonprofit Taxpayers for Common Sense. "Corn ethanol has failed to prove itself as a reliable alternative that can exist without huge subsidies."

Ethanol has plenty of support in Washington. Besides Bush's call for sharply boosting output during his State of the Union (see BusinessWeek.com, 1/24/07, "Salesman In Chief"), Hillary Clinton, senator from New York and Presidential contender, has reversed her previous position to support ethanol subsidies.

Barack Obama, another Democratic Presidential hopeful, is on board. Even John McCain, a vocal critic for years, is reconsidering his opposition as he tries to snare the Republican nomination. Archer Daniels Midland (ADM), the agribusiness giant and the largest ethanol producer, is a formidable lobbying force in the capitol, after having handed out millions of dollars in political contributions over

the last three decades.

### Abundant Crops

Yet while the influence of ethanol's enemies isn't great now, their cohesiveness, and their power, is growing. For two days earlier this month, the NCBA, the National Chicken Council, the National Turkey Federation, and the National Pork Producers' Council testified before Congress, calling for the end of corn ethanol subsidies.

Left-leaning economists such as Princeton University's Paul Krugman are joining free-market fundamentalists at the Cato Institute in pointing out the economic pitfalls of ethanol. And green groups worry that aggressive production of corn could have dire consequences for the environment, because of the heavy use of pesticides, fertilizer, and machinery that burns fossil fuels. "There's great concern," says Doug Koplow, who analyzes energy policy for Earth Track, a Boston consultancy.

The opposition groups haven't worked together before this year, but Hitch says the NCBA is now beginning to reach out to other groups in an effort to coordinate lobbying and other activities. On Mar. 16, representatives of the ranchers, chicken farmers, pork processors, and milk producers held a joint conference call to discuss strategies for addressing the ethanol issue. They agreed to form an ad hoc group, which has not been publicly announced, to launch an informational Web site and to work toward the inclusion of measures to eliminate domestic ethanol subsidies and tariffs on Brazilian ethanol in the Farm Bill expected later this year.

Ranchers and other opponents say they're determined to get the government to change its policies, however long it takes. "This ethanol thing is driving everybody half nuts," says Hitch. "As far as presenting a united front on this issue, we certainly can and will."

Ethanol's quick growth dates back only two years, to the 2005 Energy Policy Act. The law mandates that 7.5 billion gallons of the nation's annual gasoline consumption—or roughly 5%—come from renewable fuels by 2012.

In this year's State of the Union, Bush proposed quintupling that figure. That comes on top of the 51¢-per-gallon subsidy, which started in 1978. The result is a wave of ethanol plant construction, with 113 ethanol distilleries now in operation and an additional 78 in the works. That has pushed up demand for corn to the point that last year ethanol took up about one-fifth of the country's corn supply (see [BusinessWeek.com](http://BusinessWeek.com), 2/5/07, "Food vs. Fuel").

### Livestock Losses

More corn for ethanol producers, of course, means less for livestock. Ranchers in wide-open Western states and pig farmers in the rural stretches of the South and Midwest are finding their businesses slammed by policies cooked up in Washington.

Hitch says the feedstock that's primarily made from corn is the single biggest expense for his business. As corn costs have doubled, meat packers and processors like Tyson Foods (TSN) and Smithfield Foods (SFD) have to pay more for the animals they buy.

"The current approach and pace is full of risks to traditional users of feedgrains," Matthew Herman, a Tyson Foods manager, told a House subcommittee earlier this month. "Without adequate safeguards for the unintended consequences, the future of U.S. animal agriculture is put in great jeopardy."

### Earth, Wind, and Fuel

Economists argue that making ethanol from corn wouldn't make any sense without the government's help. The mix of federal and state subsidies to corn ethanol amounted to a conservative estimate of \$5

billion to \$7 billion in 2006, says Koplow of Earth Track. A considerable chunk of that money comes from the 51¢ tax refund for each gallon of ethanol refiners blend with gasoline to make fuels that can power flexible-fuel cars.

At the same time, the government imposes a 54¢-per-gallon tariff on ethanol from Brazil, which is a cheaper and more energy-efficient product made from sugar cane. Some economists say American politicians are subordinating smart energy policy for political support in key states like Iowa.

"What's this idea that Brazilian ethanol is dirty, foreign fuel?" says Jerry Taylor, senior fellow at the free-market Cato Institute. "The government should stay out of energy markets and let the best fuels win."

If the government is going to play a role in energy markets, there are other players who would like more attention. Supporters of solar and wind energy make the case that if the government is going to hand out subsidies and mandate use, in the name of energy independence, they should get the same kind of treatment as ethanol.

"Why are we supporting ethanol with a mandate, but not wind and solar?" says Randy Swisher, executive director of the American Wind Energy Assn. "There's a lack of consistency in policy."

The economics may be even more attractive for some of the alternatives. Advocates for plug-in hybrid vehicles, including wind and solar producers, as well as utilities, argue that they can produce the electric equivalent of a gallon of gas for less than \$1, less than half the cost of ethanol-based fuels.

"The amount of subsidies provided for ethanol could easily be used to switch this country to plug-in hybrid vehicles, and ultimately have a much greater impact on reducing oil dependency," says Jigar Shah, CEO of SunEdison, a solar power company.

### Ground-Breaking Ceremony

Ethanol producers say they offer a viable alternative to traditional fossil fuels that is becoming more affordable over time. "We're producing a clean domestic renewable fuel that stands on its own in value and price," says Gordon Ommen, CEO of US BioEnergy (USBE), which just surpassed VeraSun Energy (VSE) to be the second-largest producer of corn-based ethanol after Archer Daniels Midland.

US BioEnergy had a ground-breaking ceremony at its Dyersville (Iowa) ethanol plant on Mar. 16. With three plants in production and five more under construction, US BioEnergy currently has a capacity of 300 million gallons per year.

Bush's point man on alternative energy, Andy Karsner, predicts that the opposition to ethanol will fade over time. Karsner says that while the government is now supporting ethanol made from corn, by 2012 there will be technology to make ethanol from garbage, switch grass, and other nonfood products.

This so-called "cellulosic" ethanol will relieve the pressure by decreasing demand for corn. "Corn ethanol is a necessary precursor to larger scaling of ethanol and alternative fuels in general," says Karsner, whose official title is assistant secretary of the Energy Dept.'s Office of Energy Efficiency & Renewable Energy (see BusinessWeek.com, 3/2/07, "The Point Man for Bush's Green Push").

In the meantime, ranchers like Hitch are concerned that there hasn't been enough thought given to the unintended consequences of the ethanol boom. He's worried that the U.S. could be developing another addiction with some serious side effects of its own.

"It's become a mania, and everyone needs to settle down, catch their breath, and look at what's really feasible," he says. "For now, it's just runaway."

## Ethanol: Too Much Hype—and Corn

**Ethanol enjoys subsidies from Congress and has upped corn prices. The rush to alternative fuels has been unwisely skewed to this one industry. Pro or con?**



### **Pro: Bush's Cornfield of Dreams**

by Moira Herbst

Amid the explosion of consumer interest in all things ecological, elected officials are rushing to promote environmentally friendly policies. In his State of the Union speech, President George W. Bush announced his proposal to cut U.S. gasoline consumption by a fifth over the next 10 years, with a major boost in ethanol and other alternative fuels.

But before the proposal gets cheered into law, it requires further scrutiny. The reality remains that ethanol is no magic potion for meaningfully reducing oil dependence and lowering greenhouse gases. The prospect of boosting ethanol production to 35 billion barrels by 2017 will require massive tax subsidies and produce such environmental damage that the plan can be considered little more than a dream.

One problem with ethanol is its cost. It's subsidized by the U.S. government at a rate of 51 cents per gallon, and federal and state subsidies for the fuel added up to \$6 billion last year. As the number of gallons produced multiplies, so will the cost to the taxpayer.

Taxes aren't the only burden that will fall on consumers. As ethanol usurps more of the corn crop, the price of corn rises, boosting food prices. Already, about 20% of the corn crop goes toward ethanol production, up from just 3% five years ago. That drove up corn prices 80% in 2006 alone. This week, Richard Bond, the chief executive of meat producer Tyson Foods [TSN](#), warned that if corn continues to be diverted from animal feed, consumers will likely pay "significantly" more for food.

But even if ethanol costs a lot, doesn't it at least benefit the environment? Not necessarily. Because it's an oxygenate, ethanol increases levels of nitrous oxides in the atmosphere and causes smog. Researchers are debating the extent to which it reduces greenhouse gases, with some estimates as low as 5%. Also, ethanol lags gasoline in fuel efficiency, and it requires fossil fuels like coal or gas to refine and transport it.

Ethanol's supporters say that not all ethanol will come from corn crops, and point to the great promise of "cellulosic" ethanol—made from nonfood crops like corn chips and wheatgrass. But the great hope of cellulosic is dampened by a gaping hole in the technology: The enzyme that will convert these plants to starch, and thus ethanol, has yet to be discovered.

So what's the alternative to Big Corn? If the government is serious about finding cost-effective and environmentally sound alternatives to oil, it will need to invest more in research for cellulosic ethanol, as well as for wind and solar energies. Of course, the other alternative—less costly but surely not as popular—is conservation. That word was noticeably absent from the State of the Union speech.



## **Con: Ethanol Is Our Most Viable Choice**

by Justin Bachman

Ethanol enjoys its favored status because it constitutes the only real option the U.S. has to disrupt what President Bush terms our addiction to foreign oil. A congress of science and economics hasn't yet managed to generate other viable technologies to power our vehicles—and a shift toward greater use of alternative fuels is clearly necessary. As a nation, we use three times more of the worldwide oil output each year than the next-largest consumer does, and we contribute far more than our share of global carbon emissions. That makes Bush's call for 35 billion gallons of alternative fuels over the next decade practically a mandate for our role as responsible global citizens.

Additionally, the ethanol industry plays a crucial role for the U.S. Farm Belt. Higher corn prices are helping to recharge economically depressed rural economies, and new ethanol plants bring decent-paying jobs to areas that have suffered chronic underemployment (see [BusinessWeek.com](http://BusinessWeek.com), 01/10/07, "[Who Profits from Corn's Pop?](#)"). The 5.3 billion gallons of ethanol used last year consumed only 20% of the nation's corn crop. Meeting Bush's goal would still require less than half of the entire corn crop—and that's only if no new corn production is added.

Moreover, the U.S.'s vital agriculture economy depends heavily on healthy corn prices for farmers, and the current cost of around \$4 per bushel is manageable for the economy. The genius of free-market capitalism will sort out what needs to happen as corn prices mature and other corn-dependent industries compete for the feedstock. Ethanol also could become much cheaper than it is now, roughly in line with unleaded gasoline, if Washington ends tariffs on imported ethanol. That tariff, 54 cents a gallon, distorts ethanol's real cost and slows its U.S. expansion.

Archer Daniels Midland [ADM](#), VeraSun Energy [VSE](#), and other ethanol producers are spending heavily to research feed materials beyond corn, "cellulosic ethanol" (produced from cornstalks, sorghum, wood chips, and switchgrass), and the like. These efforts would render moot worries that greater corn use will adversely affect the overall economy. Regardless of feed source, ethanol has proved a viable industry, as seen by Brazil's dramatic success in converting its fuel systems to the fuel.

[http://www.businessweek.com/debateroom/archives/2007/02/ethanol\\_too\\_muc.html](http://www.businessweek.com/debateroom/archives/2007/02/ethanol_too_muc.html)