Ethanol Enjoying a Booming Renaissance
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St. Louis — Corn-and-soybean farmer John Adams considered the pitch too good to pass up.

The 58-year-old Adams, who works 950 acres in central Illinois, didn't immediately join the farmer cooperatives pooling together to build a 106-million-gallon-a-year ethanol plant. But when he dropped by an informational meeting a few months ago, he had to have a piece.

"I was impressed," he recalled.

"I had to do a lot of thinking about whether the ethanol market was and where I think it's going.

Ethanol, for decades largely an afterthought in the global fuels market, is in the midst of a booming renaissance, despite a host of questions.

It is a hot topic from agribusiness boardrooms to Midwestern diners to world capitals including Washington. President Bush says the fuel additive distilled from mashed and fermented grain is a cheap-and-easy alternative to high-priced foreign oil, and some say it's already been an economic boon for moribund rural stretches.

Yet skeptics wonder if the rush to ethanol makes sense given the murky outlook for demand. They worry, too, about ethanol's fuel efficiency — lower than traditional gasoline — and its effects on both the environment and food prices as corn chews up more farmland.

"There have been ethanol booms before, not with quite this much fire behind it," said David Sivakuta, executive director of the Illinois Petroleum Council trade group. "The thing that should make people cautious is the irrational exuberance, that somehow ethanol is going to be the silver bullet that gets us out of our energy woes. That's just not true."

Still, ethanol remains a darling of Capitol Hill lawmakers yearning to curb the nation's reliance on foreign crude.

"As long as they're committed, it'll be more than just a flash in the pan," said Darrel Good, a University of Illinois crop marketing specialist. "It's basically growing because of fairly large subsidies and mandates, right out of the chute, that philosophically doesn't sit well with some folks."

Ethanol has been aquired in the United States since Henry Ford rolled out his Model T in 1908, making it capable of running on gasoline or ethanol. The relatively cheap price of oil — and gasoline from it — marginalized ethanol until the oil shock of the 1970s, when Congress began giving oil companies a tax credit for every gallon of ethanol they blended into gas.

When oil prices retreated beginning in the late 1980s, U.S. dependence on imported oil spiked, relegating ethanol to little more than a blending component for some Midwestern gas. The Iraq war and higher oil prices have since put ethanol and other so-called alternative fuels at the forefront of the energy policy debate.

How big is the boom? Americans last year harvested 105 billion bushels of corn — the third-largest crop ever — after planting 78.3 million acres. The Agriculture Department predicts U.S. farmers this year will plant 90.5 million acres of corn, the most since 1944, and harvest a record 12.2 billion bushels.

Of that, an estimated 1.2 billion bushels will go into ethanol — a whopping 49 percent increase from last year.

It's a gold-rush mentality," said Dennis Conley, agricultural economist in the University of Nebraska's Institute of Agriculture and Natural Resources.

Other countries are making a claim. Brazil, using sugarcane, narrowly trails the United States in ethanol production, followed by China. Archer Daniels Midland Co. has led the way domestically, annually crafting more than 100 billion gallons and controlling about one-quarter of the nation's ethanol production, according to Ethanol Today magazine.

But others are gaining.

Next month, privately owned Poet LLC — formerly Bran Cos. — expects to eclipse the billion-gallon-a-year production mark. VerEn Energy Corp. recently christened its third plant — a 110-million-gallon-a-year Iowa site — to bring the company's yearly capacity to 340 million gallons.

It's an attractive investment: Billions of dollars in government support are going to developers of ethanol plants, as well as tax credits of 51 cents refiners get for every gallon of ethanol they put in blended gasoline.

The corn-for-ethanol boom, however, could eat into the food industry's share of the crop, raising prices for everything from breakfast cereal to beef and beer. As farmers plant more corn, U.S. soybean acreage is expected to slide 11 percent and cotton production 20 percent this year, the Agriculture Department said.

Bob Dineen, head of the Renewable Fuels Association trade group, said recently that the days of cheap corn may be over but that ethanol "is revitalizing rural towns across the country."

Still, economic effects on communities with ethanol plants can be subtle and to some cities, obnoxious.

In Jewell, Iowa, operators of the Horizon Ethanol plant built a year ago said the site will contribute up to $500 million a year to the local economy through salaries, taxes, corn purchases and other expenditures. The $80 million Poet plant means 40 jobs, a big deal for the once-thriving central Iowa town.

Jewell's mayor, electricity Mickey Walker, credits Poet with hiring local workers and helping revitalize aging Main Street commercial buildings.

Beyond that, Walker said, direct economic benefits are harder to pinpoint — no surprise to David Swenson, an Iowa State University economist who insists the benefits of ethanol to rural areas often are exaggerated.

"To simplify (their problems) and to say that biofuels are going to renovate rural areas — as in all rural areas — is just a big lie," he said.

Plans for a plant in Indiana's Kosciusko County were scrapped after some residents objected, citing concerns about pollution, odors and increased traffic. In DeKalb, Ill., a citizens' group filed suit in federal court to block further construction of an ethanol plant near Hennepin, fearing the plant would belch more pollution than permitted.

Still, the Environmental Protection Agency, at the urging of ethanol interests and Corn Belt politicians, in April released the pollution standards for ethanol plants. The threshold of emissions before a site must install the latest pollution controls was 100 tons annually, the EPA change more than doubles that guideline, to 210 tons.

Since 2000, U.S. ethanol production has jumped more than
Jump in ethanol fuel production

Ethanol output in the United States is expected to double from 2006 to 2009.

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<td>Fuel ethanol production</td>
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<td>Billions of gallons</td>
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<td>2009: 10.8</td>
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Source: Renewable Fuels Association

Associated Press

300 percent. The Renewable Fuels Association says 15 biorefineries came online last year and, combined with other expansions, added more than a billion gallons of new capacity. As of early April, 80 biorefineries were built and eight were expanding, posing more than an additional 6 billion gallons of new capacity by 2009.

For farmers, “This is that golden age we’ve talked about for years,” said Dirk Breckenridge, the agency’s agricultural and rural affairs adviser.

The National Corn Growers Association says U.S. corn growers hold the potential to produce 15 billion bushels by 2015 — a third of which could be used to produce about 15 billion gallons of ethanol.

What to do with the ethanol remains a question.

It is more pricey than gasoline and has about two-thirds the energy value of conventional gas, meaning lesser fuel economy. Only a sliver of the nation’s gas stations offer E85 — mostly in the Midwest — though the number has basically doubled from about 600 in January 2006 to 1,170 now, according to the National Ethanol Vehicle Coalition.

To broaden ethanol use, the industry must overcome considerable challenges that include distribution. Oil relies on pipelines, while ethanol is largely shipped by rail or truck, said Sykuta, head of the Illinois oil group.

“If you’re going to be a player nationwide, you’re going to have to build your own pipeline system, or it’s just not going to be the level of market penetration some of the advocates would suggest,” he said.

U.S. automakers have vowed to boost production of flex-fuel vehicles, restating recently to Bush their plans to double production to about 2 million a year by 2010. Detroit automakers say they’ve already produced about 6 million of the vehicles and could make half of all their vehicles capable of running on alternative fuels by 2012, if enough E85 is available.

Environmental groups and supporters of higher gas mileage standards consider emphasizing ethanol blends wrong-headed, pointing to the fraction of vehicles actually using E85 and the seeming lack of interest among consumers in owning one.

Ethanol producers and individual metropolitan area residents like Adams, the Illinois farmer, may also be in trouble if oil prices tank or the federal subsidies suddenly dry up. And what if there’s a drought or crop-throwing disease?

Many expect alternatives to crafting ethanol from corn to catch on. More than half the ethanol made in Kansas already comes from switchgrass, which requires less water than corn.

Research is also underway to derive ethanol from other plants including wheat, oats and barley, and others are looking at genetically engineering microbes to produce enzymes that will convert cellulose in crop waste, wood chips and other plants into ethanol. The Energy Department is investing $385 million in six new cellulosic ethanol plants around the country.

By most accounts, it could be years before such options become competitive. Until then, investors in corn-based ethanol wonder if the boom will carry a bust.

“As a farmer, I’m already depending on the weather and the grain market,” Adams said. “Most of the things involved in the ethanol industry I don’t have control over, either.”