

Why we import Brazilian ethanol

Joel Severinghaus, IFBF International Trade Analyst

July 14, 2005

It's no secret that ethanol has become a major industry in Iowa. We're the nation's top ethanol producing state. The 17 plants now distilling ethanol in Iowa have a production capacity of almost a billion gallons per year, about one-fourth of the U.S. total. Eight more farmer-owned ethanol plants are now in the planning or construction stages, and two others are expanding, representing an additional 665 million gallons of annual capacity. The Iowa Renewable Fuels Association predicts that by the end of next year, our local ethanol plants will be using almost 500 million bushels of Iowa corn – about a fourth of the corn grown in Iowa – and contribute 5,200 jobs and \$4 billion to the state's economy. Ethanol's now big business in Iowa, and many Iowa farmers have invested substantial cash and corn delivery commitments in their local ethanol plants.

So it's perhaps predictable that we'd be touchy about the issue of ethanol imports from Brazil.

The latest thing to stir up coffee shop grumbling about this issue is a June 22 report from the Institute for Agriculture and Trade Policy, a Minneapolis think-tank. Their study, *CAFTA's Impact on U.S. Ethanol Market*, says that the CAFTA treaty will create "a permanent tariff-free U.S. market for foreign ethanol", especially sugarcane-based ethanol from Brazil. The report (available at www.iatp.org) concludes:

"By enabling ethanol imports into the U.S., CAFTA undercuts decades of work by farmers, rural communities, and millions of dollars in taxpayer investments in federal and state government programs to build the U.S. ethanol industry. Expansion of ethanol imports through CAFTA and other trade agreements puts U.S. trade policy squarely in conflict with domestic economic and environmental policy. The winners in such a system are multinational agribusiness firms who can play off Brazil, Central America and the U.S. against each other to gain cheaper prices for raw materials and larger profits. The losers are U.S. farmers, rural communities and taxpayers who have heavily invested in ethanol as a future source of economic development and energy independence."

Before you get worked up about this issue too, let's review some historical background. Back in 1984, Congress passed the Caribbean Basin Initiative (CBI) tax legislation to help foster economic development in 24 Caribbean and Central American countries. To support the Caribbean sugar industry, one provision of the CBI gave duty-free status to ethanol made or processed in those countries. The standard U.S. import tariff on ethanol is otherwise a 2.5 percent duty, plus 54 cents per gallon. The volume of Caribbean ethanol that can take advantage of this duty-free treatment is capped, however, at seven percent of U.S. ethanol consumption. For 2005, the U.S. International Trade Commission has set that seven percent quota at 240.4 million gallons. The rub is that duty-free quota is for Caribbean ethanol without a local content requirement – it can be Brazilian ethanol that is merely reprocessed, or dehydrated to remove excess water, in Jamaica, Costa Rica or El Salvador. Above that seven-percent quota, another 35 million gallons of Caribbean ethanol can come into the U.S. duty-free *if* it has a 30 percent local

sugarcane content. Above that additional 35 million gallons, it's duty-free only with 50 percent local feedstocks.

CAFTA doesn't change anything. It doesn't increase overall access to the U.S. ethanol market. It does, according to the Office of the U.S. Trade Representative, simply establish county-specific shares for El Salvador and Costa Rica within the existing CBI quota, without increasing the "seven percent of U.S. ethanol consumption" quota size. The other CAFTA countries would retain existing CBI benefits on ethanol. USTR also points out that at least half of the CBI ethanol quota typically goes unused. But the Institute for Agriculture and Trade Policy warns that could soon change as agribusinesses, some of them American, invest in Caribbean ethanol plants.

You may recall all the hullabaloo about a year ago when word got out that Cargill planned to build an ethanol dehydration plant in El Salvador to process Brazilian ethanol for duty-free import into the U.S. under the CBI preference. The Institute for Agriculture and Trade Policy's report says that Cargill and Brazilian partners are reportedly investing in ethanol processing plants in Jamaica, building the world's first dedicated ethanol shipping terminal at the Brazilian port of Santos, and buying Brazilian sugar mills and ethanol plants.

Brazil is the world's largest sugar producer, and half its annual sugarcane crop goes into ethanol production. They're increasing output – the USDA forecasts a 5 percent increase in Brazilian sugarcane production this season, the fourth consecutive record harvest. Brazilian ethanol production is forecast to increase even more, an 8 percent jump this year.

Brazil is also the world's largest ethanol producer and exporter. Their 4 billion gallons of 2004 production was 37 percent of the world total. The 3.4 billion gallons of U.S. ethanol was 33 percent of global production, then China and India are a distant third and fourth at 9 percent and 4 percent. Brazil has a 50 percent market share of global ethanol exports. India is Brazil's biggest ethanol export customer, just ahead of the U.S.

Brazil got a head start in the ethanol game with a 1975 government program that provided tax incentives for ethanol production and ethanol-powered cars. Brazil has a huge fleet of vehicles that are designed to run on 100 percent ethanol, and mandates a 25 percent ethanol blend in all gasoline. Most U.S. gasoline is still only a 10 percent ethanol blend.

According to U.S. International Trade Commission statistics, we imported about 160 million gallons of fuel ethanol last year. 160 million gallons represents about 5 percent of total domestic ethanol production in 2004. (Or the output of four 40-million-gallon ethanol plants, the typical size for farmer-owned plants in Iowa.) Of that 160 million gallons, 86 million gallons came from Brazil, 39 million from Jamaica, 25 million from Costa Rica, and 6 million from El Salvador.

Looking more closely at those Brazilian ethanol imports, our government trade statistics show an average FOB (Brazilian port) value of \$0.87 per gallon. The average CIF (delivered to U.S. port) value was about \$1.01 per gallon. That 14 cents difference is ocean freight from Brazil to the U.S.

That's still more than it costs to ship Midwestern ethanol to either U.S. coast. A 2002 study of ethanol transportation issues by the U.S. Department of Energy calculated an average freight cost of 9.8 cents per gallon to ship ethanol from the Midwest to the East Coast, and 10.5 cents to the West Coast. (And bear in mind that California consumes about a third of this country's ethanol.) But there may be infrastructure constraints that give imported ethanol an advantage: that same DOE study noted that of 261 fuel terminals on the East Coast, 116 terminals are equipped to unload ocean ships, but only 22 can handle railcars. Ditto for the West Coast – twice as many ship terminals as rail terminals.

In addition to freight costs, ethanol imported directly from Brazil has to pay the 2.5 percent and 54 cents per gallon U.S. import tariffs. Those tariffs added another \$0.57 to the \$1.01 per gallon average CIF value of Brazilian ethanol, for a "landed cost" total of \$1.58 per gallon. How does that compare? The wholesale price of ethanol in the U.S. was about \$1.40 this May. Ethanol futures prices on the Chicago Board of Trade and Mercantile Exchange for the next few months out now range from about \$1.55 to \$1.65. And this June, the average national retail price for regular unleaded gasoline was about \$2.16. Even with the ocean freight and import tariffs, Brazilian ethanol can apparently be price-competitive here. Somebody bought those 86 million gallons of Brazilian ethanol because it was cheaper than domestic ethanol at the time.

The growth of the American ethanol market makes us an attractive target for the Brazilian industry. Ethanol consumption in the U.S. grew 24 percent from 2003 to 2004. But U.S. ethanol production hasn't been able to keep up with recent demand. Consumption increased 24 percent, but our production increased only 21 percent from 2003 to 2004. The Renewable Fuels Association sums it up in their *Ethanol Industry Outlook 2005* report: the U.S. produced a record 3.41 billion gallons of ethanol in 2004, but U.S. demand was 3.57 billion gallons. That gap was filled by imports. And Congress is now debating a Renewable Fuels Standard of up to 8 billion gallons by 2012, which could continue to attract ethanol imports until domestic production catches up with demand.

So why are we importing Brazilian ethanol? Simple economics: U.S. ethanol demand now exceeds U.S. ethanol supply, so imports will make up the difference. And Brazil can produce ethanol from sugarcane more cheaply than we can make it from Iowa corn. Last year, the Brazilians could export ethanol for less than \$0.90 per gallon, whereas the production cost for Iowa ethanol plants is somewhere around \$1.10 per gallon. Half our 2004 ethanol imports came directly from Brazil without duty-free reprocessing the Caribbean, even paying the full 2.5 percent plus 54 cents per gallon import tariff. If the world price of oil is high enough, and the price of ethanol in the U.S. is high enough, it will apparently be profitable for someone to import ethanol from Brazil.

Economists will tell you that imports aren't cause for alarm. On the contrary, imports are a sign of a strong growing economy, where we can afford to buy imports that let us consume more than we could produce domestically. And a situation where demand exceeds supply usually implies higher prices for producers. We may not like import competition for home-grown commodities like ethanol, but if we want increased access to foreign markets for *our* farm exports, we can't have it both ways. Our challenge will be to compete with lower-cost producers, such as Brazil, on terms of technological innovation (cellulosic ethanol made from cornstalks rather than grain)

and improved efficiency (high-starch corn varieties specifically for ethanol, enzymes that improve ethanol yield) rather than merely on price. In the meantime, some small percentage of ethanol in U.S. gas pumps, particularly on the coasts, may continue to come from the sugarcane fields of Brazil.