# CAFTA's Impact on U.S. Ethanol Market

A PUBLICATION OF
INSTITUTE FOR AGRICULTURE AND TRADE POLICY
TRADE AND GLOBAL GOVERNANCE PROGRAM

## ABOUT IATP

The Institute for Agriculture and Trade Policy promotes resilient family farms, rural communities and ecosystems around the world through research and education, science and technology, and advocacy.

2105 First Avenue South
Minneapolis, Minnesota 55404 USA
Tel.: (612) 870-0453
Fax: (612) 870-4846
iatp@iatp.org
iatp.org
tradeobservatory.org

Mark Ritchie, President

© 2005 IATP. All rights reserved.

## ABOUT THIS PUBLICATION

*CAFTA's Impact on U.S. Ethanol Market*

Written by
Ben Lilliston

Edited by
Jim Kleinschmit, Mark Muller,
R. Dennis Olson and Steve Suppan

Published June 2005

# Executive summary

Many organizations that supported the North American Free Trade Agreement (NAFTA) have assumed that the Central America Free Trade Agreement (CAFTA) is simply an extension of the first agreement beyond Canada and Mexico to the countries of Central America and the Caribbean. The two trade agreements, however, have striking differences that may have significant adverse impacts on U.S. farmers. Some of the CAFTA provisions that have not received enough attention pertain to ethanol imports.

The U.S. ethanol industry has experienced rapid growth in recent years. Much of this growth in the Midwest has been financed and fueled by local investments, primarily from family farmers, who now collectively own over half of the 84 ethanol plants in the U.S. These plants provide risk mitigation and a preferred market for corn farmers, new jobs and income streams for rural communities and reduced dependence on increasingly expensive foreign fossil fuels. Congress has instituted a 54 cent per gallon tariff on ethanol imports to promote the development of the domestic renewable fuel industry, but CAFTA and other trade agreements threaten to put this emerging American industry—and an opportunity to reduce our energy dependence—at risk.

CAFTA locks in tariff-free access to the U.S. market for foreign ethanol. Permanent provisions in the Caribbean Basin Initiative (CBI) allows 7 percent of total U.S. ethanol production that is produced by foreign feedstock (outside CBI countries) to be imported into the U.S. tariff-free. The foreign feedstock must be processed in a CBI country. In a case that has received a lot of attention, high water content Brazilian ethanol would be dehydrated and turned into fuel in an El Salvador plant, and then exported into the U.S. Moreover, the CBI also allows unlimited amounts of ethanol above the 7 percent cap to enter the U.S. without a tariff, provided it is produced with at least 50 percent Caribbean Basin country feedstock.

The CBI provisions are permanent until another free trade agreeement comes into effect. In this case, CAFTA overrides the CBI. CAFTA could have increased or decreased the levels of tariff-free ethanol entering the U.S. This is why agribusiness companies waited until the CAFTA agreement to begin rapid investment in ethanol-related ventures in Central America and Brazil. This analysis of the CAFTA ethanol provisions and market development in Central America and Brazil shows:

- For 2005, 240.4 million gallons of ethanol derived from foreign feedstocks are allowed to enter the U.S. from CAFTA countries tariff free. This is more ethanol than, or roughly equal to, the amount produced by farmer-owned ethanol plants in most of the top ethanol producing states in the U.S., including: Nebraska, Kansas, Wisconsin, Illinois, Indiana, Missouri and South Dakota.

- Global agribusiness companies have announced plans or have finished construction on ethanol processing plants in El Salvador, Jamaica, Trinidad and Tobago, and Panama. These plants are designed to take advantage of the CAFTA ethanol provisions by importing high water content Brazilian ethanol, dehydrating the ethanol to make it fuel grade and useable in the U.S., and exporting it into the U.S. tariff-free.

- Once the facilities are in place, it would not be difficult for CAFTA-based ethanol facilities to use a portion of regional feedstock in their ethanol production, which would allow them unlimited exports into the U.S. tariff-free.

- Agribusiness companies are also making significant investments in Brazil to increase ethanol exports. These investments include Cargill's decision to expand its soy port in Santos to include the world's first ethanol-exclusive terminal.

- Backed by strong government supports, Brazil's ethanol production costs are at one-half to two-thirds of those in the U.S. Even when taking into account the 54 cent U.S. tariff, it can still be

economical for transnationals to ship to U.S. coastal cities when U.S. ethanol prices are high. Many U.S. coastal cities are facing ethanol mandates for gasoline formulation to help them meet national Clean Air Act requirements.

CAFTA is a model for how ethanol will be considered in future trade agreements. Of particular relevance is the Free Trade Area of the Americas (FTAA), which would expand CAFTA to include all 34 countries in the Western Hemisphere, except Cuba. If Brazil were able to gain CAFTA-language on ethanol in an FTAA agreement, it could flood the U.S. with foreign-produced ethanol.

The largest beneficiaries of CAFTA's ethanol provisions will be agribusiness corporations in Brazil, a country that already has a well-established ethanol industry. Unlike much of the farmer-owned ethanol production in the U.S., international agribusiness giants control the ethanol development in Central American countries.

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 energy policy. The winners in such a system are multinational agribusiness firms, who can play 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 source of economic development and to provide increased energy independence for the U.S.

# The state of the U.S. ethanol industry

In 2004, the U.S. ethanol industry produced a record 3.41 billion gallons, more than double what it produced in 2000.[1] According to the U.S. Department of Agriculture, ethanol production adds 30 cents to the value of a bushel of corn. The rapid growth in ethanol production goes beyond purely economic terms. In many rural communities experiencing job and population losses, ethanol represents hope for a strong economic future. This is why significant investments are being made in ethanol, not just by agribusiness, but also by communities and farmers themselves. According to the Renewable Fuels Association, there are 84 ethanol plants in the U.S. and another 18 under construction. Of these, 49 are farmer-owned. Archer Daniels Midland is the largest single owner of ethanol plants with seven. Nearly all U.S. ethanol plants use corn. In other countries, like Brazil, sugar cane is the primary source for ethanol production.

In the last year, the U.S. ethanol market's rapid increase in production has overwhelmed demand for the new fuel. The price of ethanol has fallen by more than 20 percent this year, from around $1.80 to around $1.20 a gallon.[2] This decrease in price is partially related to increased production. But it also can be attributed to major oil companies' reluctance to use ethanol beyond what is mandated by federal and state laws. This mandate varies from state to state—with New York and Connecticut requiring a 10 percent blend of ethanol and gasoline, and California requiring 5.7 percent ethanol and 94.3 percent gasoline. Many states are considering higher mandates, and a national mandate being considered in Congress would set a national 8 billion gallon renewable fuel standard by 2012. These mandates are expected to spur demand and reinvigorate prices.

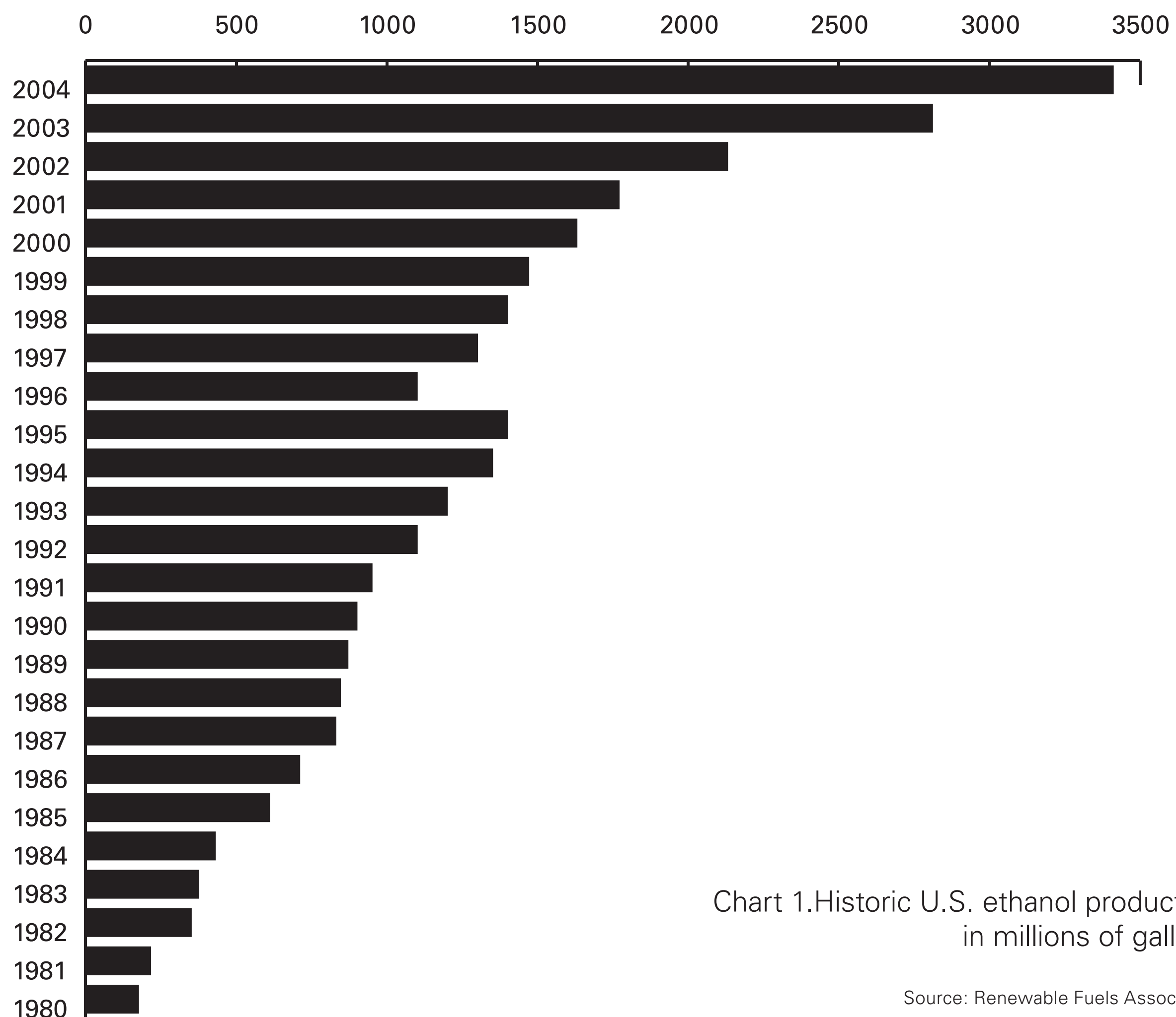



Chart 1.Historic U.S. ethanol production in millions of gallons

Source: Renewable Fuels Association

# CAFTA locks in ethanol imports to U.S.

The Caribbean Basin Initiative (CBI) is intended to facilitate the economic and export diversification for countries in that region. Initially launched in 1983, and substantially expanded in 2000 through the U.S.-Caribbean Basin Trade Partnership Action, the CBI provides 24 beneficiary countries with duty-free access to U.S. markets for most goods.

CBI countries include the Central American countries Belize, Costa Rica, El Salvador, Guatemala, Guyana, Honduras, Nicaragua and Panama, and the Caribbean countries Antigua, Aruba, the Bahamas, Barbados, British Virgin Islands, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, Montserrat, Netherlands Antilles, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago.[3]

The agreement allows countries covered under the CBI to export ethanol produced by foreign feedstock (i.e., sugar from another country) into the U.S. duty-free up to 7 percent of total U.S. ethanol production. After the 7 percent of U.S. production threshold has been reached, an additional 35 million gallons can be imported into the U.S. duty-free, provided that at least 30 percent of the ethanol is derived from "local" (Caribbean region) feedstocks. Anything above the additional 35 million gallons is duty-free if at least 50 percent of the ethanol is derived from local feedstocks.[4]

The CBI ethanol provisions are permanent until another free trade agreeement comes into effect. In this case, CAFTA overrides the CBI. CAFTA could have increased or decreased the levels of tariff-free ethanol entering the U.S. CAFTA's ethanol provisions provide a new level of permanence to the CBI deal, and clear the way for agribusiness to starting investing in the infrastructure to take advantage of them. The significance of CAFTA is that it makes the CBI allowances on ethanol exports into the U.S. permanent. When the Presidents of these CAFTA countries traveled to meet with President Bush last month, they insisted that the CAFTA agreement not be modified specifically on sugar and ethanol.[5] From the perspective of U.S. farmers, there are two concerns with the ethanol language in CAFTA:

1. It will allow significant quantities of Brazilian ethanol, up to 7 percent of the U.S. total ethanol production, to enter the U.S. though CAFTA countries tariff-free.

2. It will allow unlimited amounts of ethanol produced from CAFTA/CBI countries' feedstock to enter the U.S. tariff-free.

Chart 2. Current ethanol imports into the U.S., 2004

Source: Renewable Fuels Association

## 7 percent is no drop in the bucket

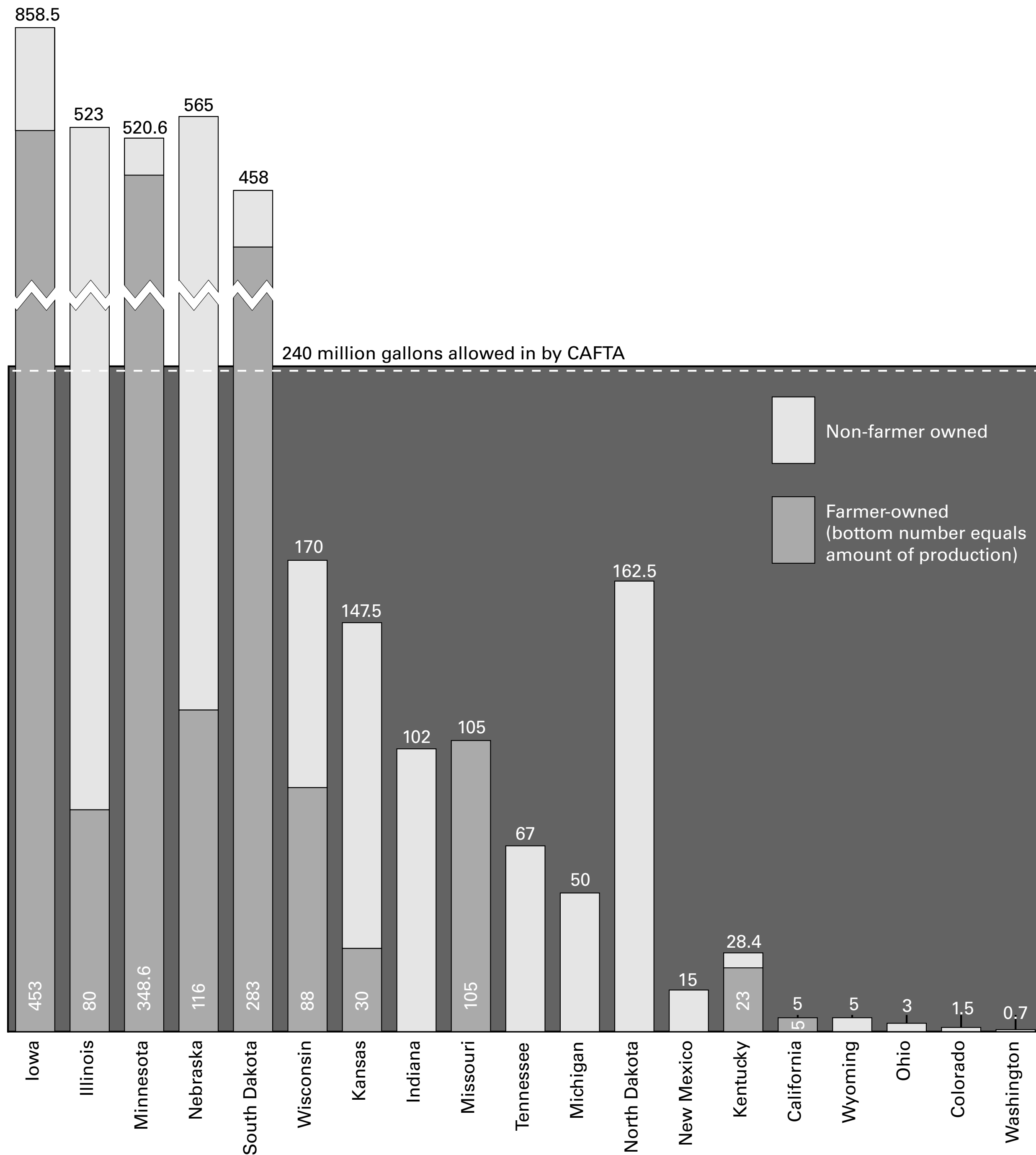
The U.S. International Trade Commission recently determined the CBI cap on duty free ethanol imports is 240.4 million gallons for fiscal year 2005. Accordingly, as the amount of U.S. ethanol production increases as expected each year, the number of gallons that can be imported tariff-free under CAFTA increases as well.

Under the CBI, countries have not come close to exporting ethanol into the U.S. at the 7 percent level. However, CAFTA has already encouraged investments in CBI countries and Brazil that will easily reach that 7 percent threshold.

The introduction of 240.4 million gallons of additional ethanol onto the U.S. market would equal or exceed the output of many of the U.S. top ethanol producing states.

Chart 3. State-by-state ethanol production, state total and farmer-owned production overlayed with ethanol duty-free import cap (in millions of gallons)

Source: Renewable Fuels Association



## Unlimited tariff-free exports from ethanol produced by CAFTA country feedstocks

While certainly the main concern surrounding CAFTA is Brazilian ethanol, CAFTA countries themselves also are low-cost sugar cane producers—particularly Guatemala, which currently produces sugar at about 5 cents per pound cheaper than the U.S. One of the lynchpins of the CAFTA agreement was its sugar provisions, which allow CAFTA countries gradually-increasing levels of access to the U.S. market. Ethanol production is likely viewed by CAFTA country leaders as another avenue for CAFTA countries' sugar to be sold into the U.S.

CAFTA also establishes country-specific shares for Costa Rica and El Salvador within the overall CBI quota. El Salvador is guaranteed 5.2 million gallons in the first year, with annual increases of 1.3 million per year, not to exceed 10 percent of the quota. Costa Rica is allocated 31 million gallons annually.[6] These carve-outs guarantee El Salvador and Costa Rica these amounts of the 7 percent tariff-free access. But they can also compete for an additional share of the 7 percent tariff-free access. The inclusion of El Salvador as part of this special carve-out is significant. The country is home to an ethanol processing plant being built by Cargill to bring ethanol from Brazil into the U.S.

Once ethanol processing facilities are operating in CAFTA countries, it will not be difficult to go beyond the 7 percent limit by using ethanol feedstocks produced by CBI countries.

Table 1. DR-CAFTA sugar production by country

| Country | Production (in metric tons) |
|---|---|
| Dominican Republic | 531,000 |
| Costa Rica | 412,000 |
| El Salvador | 545,000 |
| Guatemala | 1,944,000 |
| Honduras | 348,000 |
| Nicaragua | 453,000 |
| **DR-CAFTA total** | **4,233,000** |

Source: USDA/FAS, May 2005.

## Agribusiness investments take advantage of ethanol exports

In December 2003, the countries participating in CAFTA announced that they had reached an agreement. Five months later, news came that Cargill would be building an ethanol plant in El Salvador to help usher Brazilian ethanol into the U.S.

While CAFTA does not make any changes with regards to ethanol from the CBI agreement, it does provide market stability for investment. With the CBI set to expire in 2008, it was a risky proposition to invest in processing facilities for a section of the U.S. ethanol market that may not be there in the future. CAFTA provides the stability for major agribusiness investment by guaranteeing a permanent U.S. market for tariff-free ethanol exports. CAFTA also benefits other CBI countries. When the CBI comes up for renewal in 2008, it will difficult to treat countries that are not part of CAFTA differently on ethanol and renegotiate the existing language.

Following the CAFTA agreement in December 2003, agribusiness moved swiftly to set up the infrastructure to gain access to the U.S. ethanol market. The following has been made public:

**El Salvador:** In May 2004 Cargill, Brazil's Crystalsev and El Salvador's Compañía Azucarera Salvadoreña announced they were building a $10 million ethanol dehydration facility that would convert Brazilian cane-based ethanol into fuel ethanol to be imported into the U.S. The plant will have a capacity of about 63 million gallons annually. [7]

When first reported last year, the construction of the plant outraged a number of farm groups in the U.S.,

including long-time Cargill ally the National Corn Growers Association (NCGA). The NCGA chastised Cargill for undercutting the U.S. ethanol industry in a public letter.[8]

**Trinidad and Tobago:** In October 2004 a Caribbean liquor company, Angostura Ltd., announced that it was planning to build a 100 million gallon ethanol drying facility in Trinidad and Tobago—almost twice as large as the El Salvador plant proposed by Cargill. The Trinidad and Tobago plant alone could export into the U.S. almost double the amount of ethanol currently coming in through the CBI.[9]

**Jamaica:** In December 2004 the press in Latin America reported that Cargill, in a deal with Brazilian commodities trader Coimex, was investing in ethanol processing plants in Jamaica.[10] The $10 million ethanol-drying distillery is also aimed at reprocessing Brazilian ethanol to be exported to the U.S.[11]

**Panama:** In October the industry publication Inside Fuels and Vehicles reported that ChevronTexaco is building a plant in Panama that could export between 50 and 100 million gallons of ethanol per year.[12]

These are just the reports that have been made public. The April 2005 issue of Ethanol Today reported, "by some accounts, there may be up to 10 ethanol or dehydration projects in the works" in CBI countries.

## Agribusiness investing in Brazil to export ethanol

In addition to the significant investments being made in the CAFTA and CBI countries, a number of new acquisitions in Brazil indicate a clear effort to export large amounts of ethanol onto the world market.

In April 2005, Cargill announced plans to expand its soy bean and soy meal terminal at the port of Santos in Brazil, where it will run an ethanol-exclusive terminal operated in partnership with ethanol manufacturer Crystalsev. This would be the first terminal in the world devoted solely to exporting ethanol. According to Crystalsev, several sugar mills have already shown interest in using the port terminal to export ethanol.[13]

In May 2005 Cargill announced a new deal to buy Açucareira Corona sugar mills and ethanol plants in Brazil. In the 2004-05 crop year, Açucareira Corona processed 165 million liters of ethanol.[14] The joint venture with Brazilian sugar traders Crystalsev and Fluxo would bring Cargill two mills with a combined processing capacity of some 6 million tons of sugar cane.[15]

In addition, Brazil is taking steps to improve ethanol transport for domestic and global trade by improving its rail system. This is expected to dramatically increase their ethanol exports. According to the São Paulo Sugar and Ethanol Institute, Brazil's ethanol exports are expected to jump from $1 billion a year to $8 billion a year as early as 2007.[16]

## Targeting U.S. coastal markets

By building the export infrastructure in Brazil, Central America and the Caribbean Basin, agribusiness is in good position to take advantage of lucrative U.S. ethanol markets on the East and West Coasts—particularly California and major cities like New York and Atlanta, which must use reformulated gas this year to meet Clean Air Act requirements. It is often cheaper for states like New York and California to import ethanol by ship, rather than pay to have it transported by rail or barge from the Midwest U.S.

In an April 2005 visit to explore the California ethanol market, Brazil's Minister of Development Luiz Fernando Furlan talked of cooperation between U.S. and Brazilian companies to target ethanol markets in China and Japan. During the meeting he met with Cargill, ChevronTexaco and BP Amoco.[17]

Imported ethanol is not just a possibility from CAFTA and CBI countries—direct ethanol imports from Brazil are also likely. Brazil is the world leader in sugar production, ethanol production and ethanol exports. In 2003, Brazil produced 3.6 billion gallons of ethanol and owned 50 percent of the global ethanol export market.[18]

In fact, Brazil exported 112 million gallons to the U.S. in 2004. Brazil currently faces a 54 cents per gallon tariff if it ships directly to the U.S. But when U.S. ethanol prices rise, it can be economical to ship Brazilian ethanol produced at 60 cents a gallon and pay the 54 cents per gallon tariff into the U.S.

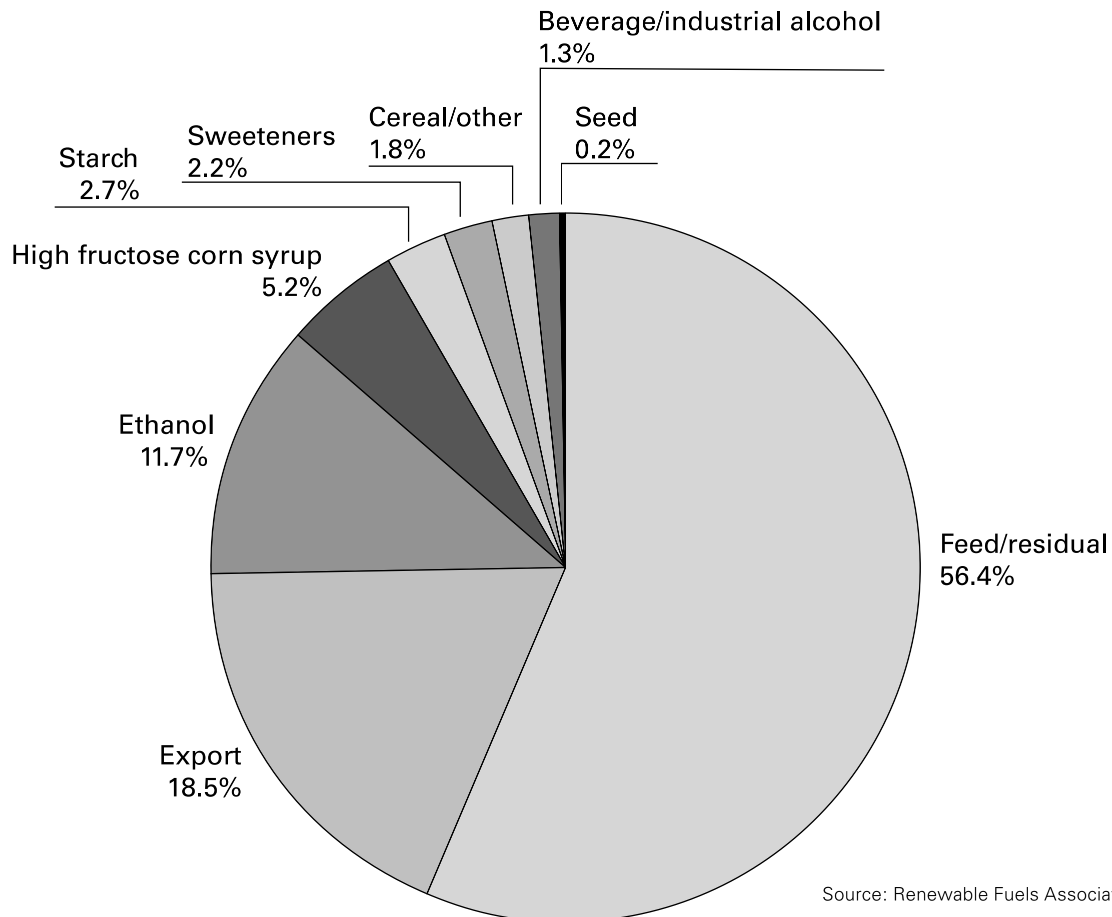
## CAFTA sets standard for future trade agreements

Trade agreements do not exist in isolation. They must fit within the fabric of the larger trading system at the World Trade Organization, as well as within the context of hundreds of other smaller agreements between countries. Most importantly, they set standards for negotiation on future trade agreements.

This is the case for CAFTA—called a "gateway" agreement by U.S. Trade Representative Robert Portman. The gateway CAFTA is supposed to open is called the Free Trade Area of the Americas (FTAA), which would be an expansion of CAFTA to include all countries in North and South America. Negotiations have stalled at the FTAA largely over agriculture.

The CAFTA model on ethanol will undoubtedly be a starting point for Brazil as the FTAA negotiations continue. It would be difficult for the U.S. to justify giving Brazil a different set of rules under FTAA than every other country in North and South America. If Brazil was to win a CAFTA-like provision for ethanol in a future FTAA agreement it would open the U.S. doors to a flood of Brazilian ethanol.

Chart 4. United States corn use




Source: Renewable Fuels Association

# Undercutting ethanol's strengths

An influx of imported ethanol threatens to undermine some of the most important reasons why ethanol has been so attractive to rural communities in the U.S. and policymakers interested in energy independence. Those reasons include:

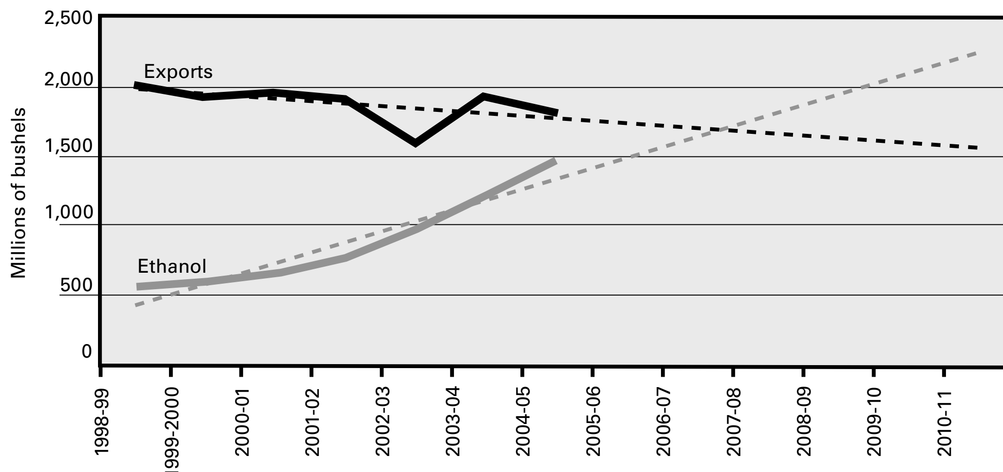
- **U.S. ethanol is largely based on local investment.** The U.S. has experienced a steady shift over the last 50 years away from many local businesses and family farmers to a few large agribusiness companies and fewer farmers. Contrary to this trend, over half of the U.S. ethanol plants are farmer-owned. And according to a recent study by the National Farmers Union, the ethanol industry is the only agriculture sector that has actually declined in the level of corporate concentration from 73 percent in 1995 to 43 percent in 2002.[19] When businesses are owned locally, money is more likely to stay in the community and less likely to move elsewhere.

- **Improving local energy production.** A main reason that ethanol has such broad appeal is that it allows the U.S. to reduce its dependency on foreign oil. In addition, it generally provides a cleaner-burning fuel source than gasoline. A stable, local source of cheap, cleaner energy could greatly help rural economic development in a number of ways. To become more dependent on foreign ethanol would undercut much of this advantage.

- **Higher corn prices.** Ethanol is close to many farmers' hearts because it increases demand, and thus prices, for corn. U.S. market corn prices are at historic lows—well below the cost of production for farmers. Studies have shown that corn prices in markets near ethanol plants will increase between five and eight cents per bushel. Ethanol used some 1.4 billion bushels of corn in 2004. In fact, demand for corn in the ethanol market is growing so fast that a recent estimate by the National Corn Growers Association concluded that corn used to produce ethanol will overtake corn exported to other countries by 2008.[20] By allowing ethanol imports into the U.S., it will likely limit how high the U.S. price for ethanol will go. This will limit the value of U.S. ethanol and in turn limit the price of corn.

- **Declining corn export markets necessitate domestic uses.** Despite tremendous efforts to expand export markets through NAFTA and the World Trade Organization, U.S. corn exports have been in slow decline since 1980. With the explosion in grain production in countries like Brazil, Argentina, Ukraine and even China, that's not likely to change in the near future. Domestic uses of corn, and specifically ethanol production, have been a bright spot in compensating for failed efforts to increase exports.

Chart 5. U.S. corn production, ethanol use vs. corn exports, 1998-2011




Source: National Corn Growers Association

# Conclusion

CAFTA creates a permanent tariff-free U.S. market for foreign ethanol. This market stability is encouraging agribusiness companies to invest in ethanol infrastructure in Central America and Brazil in order to export more ethanol into the U.S.

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.

## References


1. Renewable Fuels Association. "Ethanol Industry Outlook." February 2005. http://www.ethanolrfa.org/outlook2005.html
2. Cooper, Mark. "Over a Barrel: Why Aren't Oil Companies Using Ethanol to Lower Gasoline Prices?" Consumer Federation of America. May 2005. <http://www.consumerfed.org/cfaethanol050505.pdf>
3. International Treaty Data System, Caribbean Basin Initiative. <http://www.itds.treas.gov/cbi.html>
4. *Ethanol Today*. "Ethanol Import Debate Looms." April 2005.
5. *Inside US Trade*. "USTR Aims to Move CAFTA Without Providing Sugar Clarification." May 20, 2005.
6. U.S. Trade Representative. "CAFTA Facts." February 2005. <http://www.fas.usda.gov/itp/CAFTA/Ethanol.pdf>
7. *Inside Fuels and Vehicles*. "Caribbean Imports May Double Once Cargill Opens Facility." September 23, 2004.
8. National Corn Growers Association. "NCGA Condemns Cargill's Plan to Proceed with El Salvador Dehydration Plant. September 7, 2004. <http://www.ncga.org>
9. *Inside Fuels and Vehicles*. "Trinidad and Tobago Ethanol Plant Would Triple Current CBI Imports." October 7, 2004.
10. EIU Business Latin America. "Brazil: Refined Drive." December 13, 2004.
11. *ProCana*. "Brazil Crystalsev Confirms $10 Million Investment in El Salvador Ethanol Drying Plant." Latin America News Digest. December 2, 2004.
12. *Inside Fuels and Vehicles*. "Trinidad and Tobago Ethanol Plant Would Triple Current CBI Imports." October 7, 2004.
13. *Valor Econômico*. "Brazil Crystalsev to Launch Santos Ethanol Terminal Early May 2005." Latin America News Digest. March 15, 2005.
14. *Valor Econômico*. "U.S. Cargill Likely to Buy Brazil Acucareira Corona." Latin America News Digest. May 19, 2005.
15. *Food Navigator*. "Cargill Taps into Brazilian Sugar Market." May 25, 2005. <http://www.foodnavigator.com/news/ng.asp?n=60212&m=1FNE525&c=joakwtssvcvweg>
16. BNamericas.com. "Brazil May Make Ethanol Transport More Efficient by Improving Rail System." June 6, 2005. <http://www.soyatech.com/bluebook/news/viewarticle.ldml?a=20050606-9>
17. Armstrong, David. "Brazilian Official Promoting Ethanol Fuel." San Francisco Chronicle. April 22, 2005.
18. Guebert, Alan. "Cargill's Ethanol Import Plan Shouldn't Shock Growers." May 18, 2004.
19. National Farmers Union. <http://www.nfu.org/documents/legislative/Concentration_Tables_2004.pdf>
20. National Corn Growers Association. "Data Indicate Ethanol Will Pass Exports as Number Two Corn Use by 2008." June 9, 2005. <http://www.ncga.com/news.notd/2005/june/060905.htm>

INSTITUTE FOR AGRICULTURE AND TRADE POLICY
2105 FIRST AVENUE SOUTH
MINNEAPOLIS, MINNESOTA 55404 USA

IATP.ORG