

## U.S. Ethanol Exports (12292015)

The latest monthly data from USDA/ERS indicates that U.S. ethanol production in September 2015 was 1.2 billion gallons, declining 4% from the previous month, but increasing 3% from a year ago. U.S. domestic ethanol production during the first nine months of 2015 reached a volume of 11.0 billion gallons, rising 3.6% from the same period last year.

U.S. ethanol exports from January to September 2015 represented 5.7% (626.1 million gallons) of total domestic production during that period. As Figure 1 indicates, Canada is the most consistent and largest importer of U.S. ethanol. Canada imported 185 million gallons of ethanol during the first nine months of 2015, which represented 29.5% of U.S. ethanol exports during that period. However, exports to Canada declined 30.5% during 2015 compared to the first nine months of 2014. According to a Global Agricultural Information Network (GAIN) report published by USDA/FAS in August 2015 (*Canada Biofuels Annual 2015*), Canada's lower rates of discretionary ethanol blending (on average 5%) in 2015 will result in lower domestic ethanol production and lower imports of U.S. ethanol during 2015 and 2016.

Another important destination for U.S. ethanol is Brazil. Exports to Brazil from January to September 2015 represented 17.6% (110 million gallons) of total U.S. ethanol exports during that period. Exports to Brazil grew 45% this year relative to the volume exported January to September 2014 (75.6 million gallons). Another GAIN report (*Brazil Biofuels Annual, Biofuels - Ethanol and Biodiesel*) published by USDA/FAS, also in August 2015, indicated that in March 2015 Brazil's government approved a 2% increase in ethanol blend for gasoline from 25% to 27%.

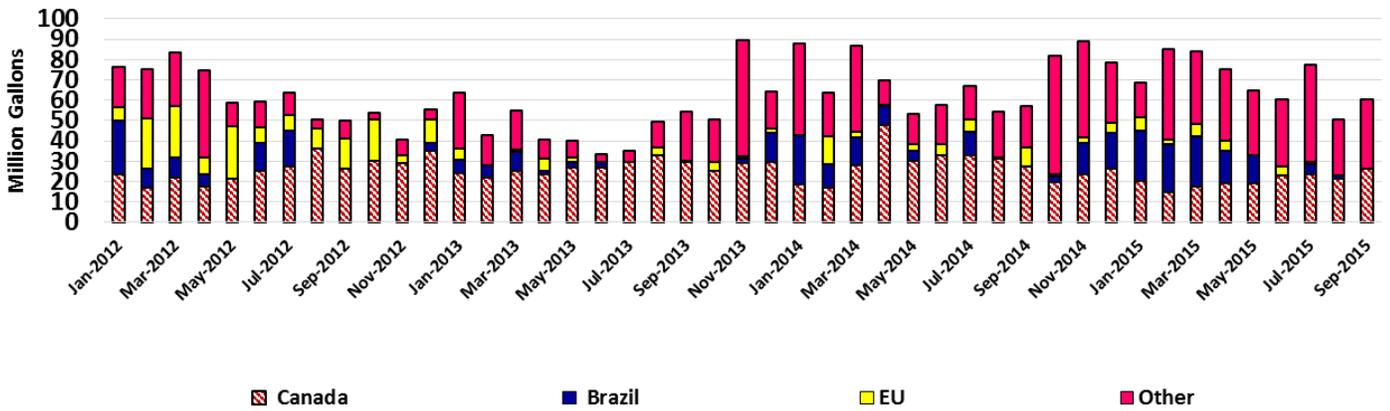
Brazil's total ethanol imports in 2015 are expected to increase 11.7% to about 133.4 million gallons compared to the 2014 (119.4 million gallons) as reported by the Brazilian Foreign Trade Secretariat (SECEX)<sup>1</sup>. In 2014 the U.S. supplied about 89% of Brazil's imported ethanol. In addition, from January to June 2015, the U.S. supplied 96% of Brazil's imported ethanol. If that trend continues for the entire year, the U.S. will seize most of the projected increase in Brazil's ethanol imports during 2015.

Despite the strong U.S. dollar, U.S. ethanol exports in 2015 (January to September) were up 4.9% year-over-year. The growth in exports this year has been aided in part by lower 2015 Brazilian ethanol exports in response to their own increased domestic ethanol blending requirements.

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<sup>1</sup> SECEX ethanol data was expressed in liters. We converted the data from liters to gallons by using the following conversion factor: 3.7854 liters= 1 gallon.

**Figure 1. U.S. Ethanol Exports by Destination**

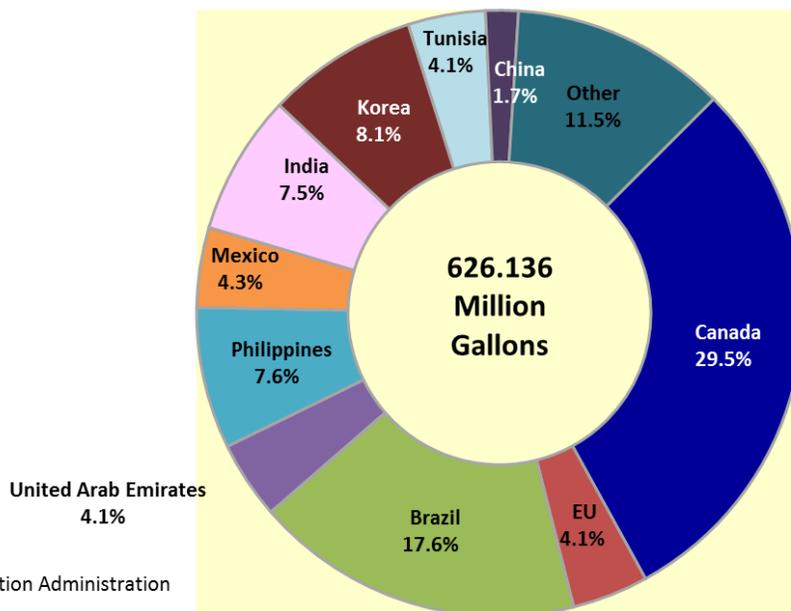


Source: U.S. Energy Information Administration

U.S. ethanol exports to the European Union (EU) have declined substantially since 2013 due to anti-dumping duties that were put in place during that year. From 2010 to 2012, on average, 25% of U.S. ethanol exports were shipped to EU, whereas from 2013 to 2014 only 5% of U.S. ethanol exports were dispatched to EU. From January to September 2015, U.S. ethanol exports to the EU (25.5 million gallons) fell 38% year-over-year, representing only 4% of the U.S. ethanol exports during the first nine months of 2015.

Exports to other markets have become more relevant. For instance, from January to September 2015, Korea and the Philippines imported 8.1% and 7.6% of the total U.S. ethanol exports during that period, respectively. At the same time, India imported 7.5% of the U.S. ethanol exports from January to September 2015 (see Figure 2).

**U.S. Ethanol Exports by Destination January to September 2015**



Source: U.S. Energy Information Administration

After the Environmental Protection Agency (EPA) finalized the rule determining the Renewable Fuel Standard (RFS) volumes for 2014 through 2016, the U.S. Energy Information Administration (EIA) modified its ethanol production forecast for 2016. EIA's December 2015 forecast indicates that the average daily production of

ethanol will average 0.96 million barrels/day during both 2015 and 2016 compared to 0.95 million barrels/day, the November 2015 forecast for 2016. The latest EIA ethanol consumption forecast for 2015 and 2016 indicates a volume of 0.91 and 0.92 million barrels per day, respectively. With these levels of ethanol consumption, the ethanol share of the total gasoline demand will average 9.9% in 2015 and 10% in 2016. According to EIA, no significant increases should be expected in E15 and E85 consumption in 2015 and 2016.

In summary, four reasons point to constrained growth in the ethanol industry:

1. Domestic ethanol consumption is limited by the “blend wall”
2. Domestic ethanol consumption is mainly in the form of low blends with gasoline (gasoline blend with up to 10% ethanol)
3. No substantial growth is expected in the short run in the consumption of E15 and E85
4. Potential for ethanol exports expansion to Canada, the main market for U.S. ethanol, seems constrained in 2015 and 2016

In light of the above four points, continuing U.S. ethanol export diversification to different international markets is crucial to the growth of the U.S. ethanol industry.