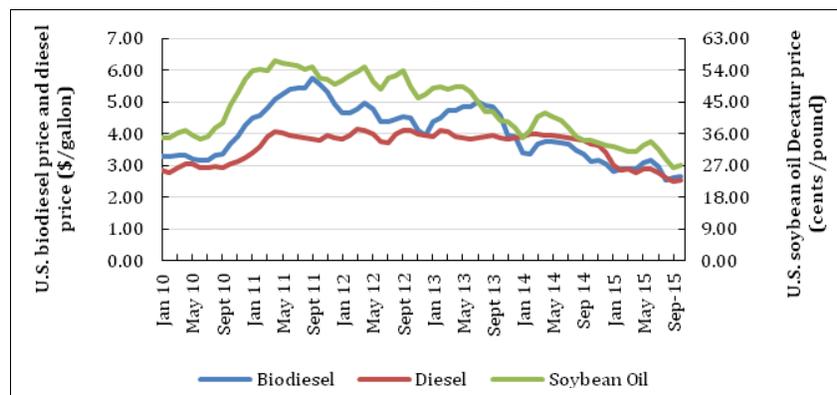


## Two-way Biodiesel Trade in North America

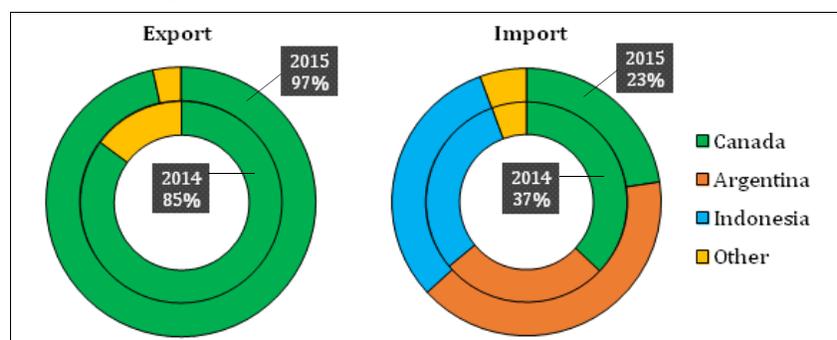
Following the decrease in the global crude oil price, the U.S. biodiesel, diesel (on-highway) and soybean oil prices have declined as well (Figure 1). From January 2014 to October 2015, U.S. diesel, biodiesel and soybean oil prices move together with correlation coefficient of 0.91 between diesel and biodiesel; 0.87 between diesel and soybean oil; and 0.96 between biodiesel and soybean oil. However, these relationships were not present in previous years.

**Figure 1. U.S. biodiesel rack price, diesel (on-highway) price, and soybean oil (Decatur) price** (Source: Biodiesel-National Weekly Ag Energy Roundup, Diesel-U.S. DOE, EIA, and Soybean Oil- USDA-IL Dept. of Ag Market News Service)



In 2014, 37% of the total biodiesel imports to U.S. came from Canada. In 2015, Canada lost share after the EPA ruled that biodiesel from Argentina can help to meet the U.S. mandates and Canada's share shrank to 23% (Figure 2).

**Figure 2. U.S. biodiesel export and import share by country in 2014 and 2015 (January to August)** (Source: U.S. DOE, EIA)



In 2014, U.S. imported 71.23 million gallons of biodiesel from Canada and exported 70.60 million gallons to Canada (Figure 3). U.S. total biodiesel imports were 1.7 times U.S. exports in 2014, and imports accounted for about 15% of domestic supplies.

**Summary:**

*This bulletin shows the biodiesel trade between U.S. and Canada and explains the causes for this trade.*

**For more on this topic, see these FAPRI-MU publications:**

Report #03-15  
Baseline Update for U.S. Agricultural Markets

Report #01-15  
U.S. Baseline Briefing Book

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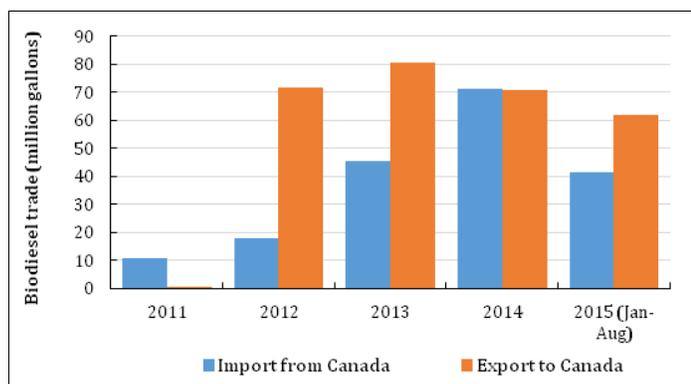
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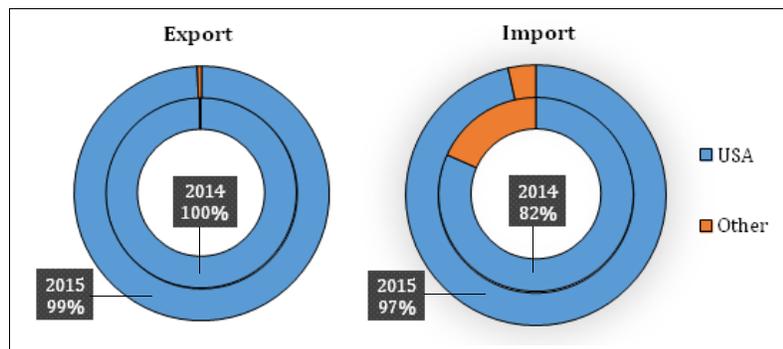
U.S.-Canada biodiesel trade is driven by policy among other factors. For example, the U.S. RFS qualifies imported Canadian biodiesel for RIN generation. In addition, until 2014, the U.S. biodiesel blenders using Canadian biodiesel were eligible for the blenders' tax credit. The tax credit was retroactively reinstated in December 2014 before expiring again at the beginning of 2015. However, according to a 2015 USDA GAIN report there are contractual agreements between the U.S. exporters and the Canadian biodiesel producers to share risk if the tax credit is not renewed.

**Figure 3. U.S. – Canada biodiesel trade** (Source: U.S. DOE, EIA)



On the other hand, Canada produces a significant quantity of biodiesel from animal fat and recycled oil. This results in a fuel with a higher cloud point<sup>1</sup> that makes it impossible to use in many provinces in Canada. A significant portion of the biodiesel produced in Canada has been sent to U.S. to meet the RFS biodiesel mandates. The federal mandate of 2% in Canada is widely implemented while British Columbia and Ontario have a higher mandate of 4%. In the absence of any domestic production of hydrotreated vegetable oil (HVO) biodiesel, which has a similar cloud point to petroleum based diesel, Canada relies on U.S. HVO biodiesel for use in the northern provinces. Biofuels exported from the U.S. cannot help to meet the U.S. biofuel use mandates.

**Figure 4. Canada biodiesel export and import share by country in 2014 and 2015 (January to August)** (Source: F.O. Licht)



Most of Canada's biodiesel imports come from the U.S. and almost all of the Canadian exports go to U.S. (Figure 4). In order to meet the federal biodiesel mandates of 2%, in 2014 Canada's imports were 1.5 times of the domestic production while during the same year around 84% of the domestic supplies were exported mostly to the U.S. Canada's biodiesel exports to the U.S. are driven by the RIN generation and biodiesel tax credit in the U.S.

1. Measure of cold weather characteristics in diesel and biodiesel fuels. In colder temperatures, fuel can gel and clog vehicle filters. Biodiesel has a comparatively higher cloud point than diesel fuel, so it can clog filters at a higher temperature.