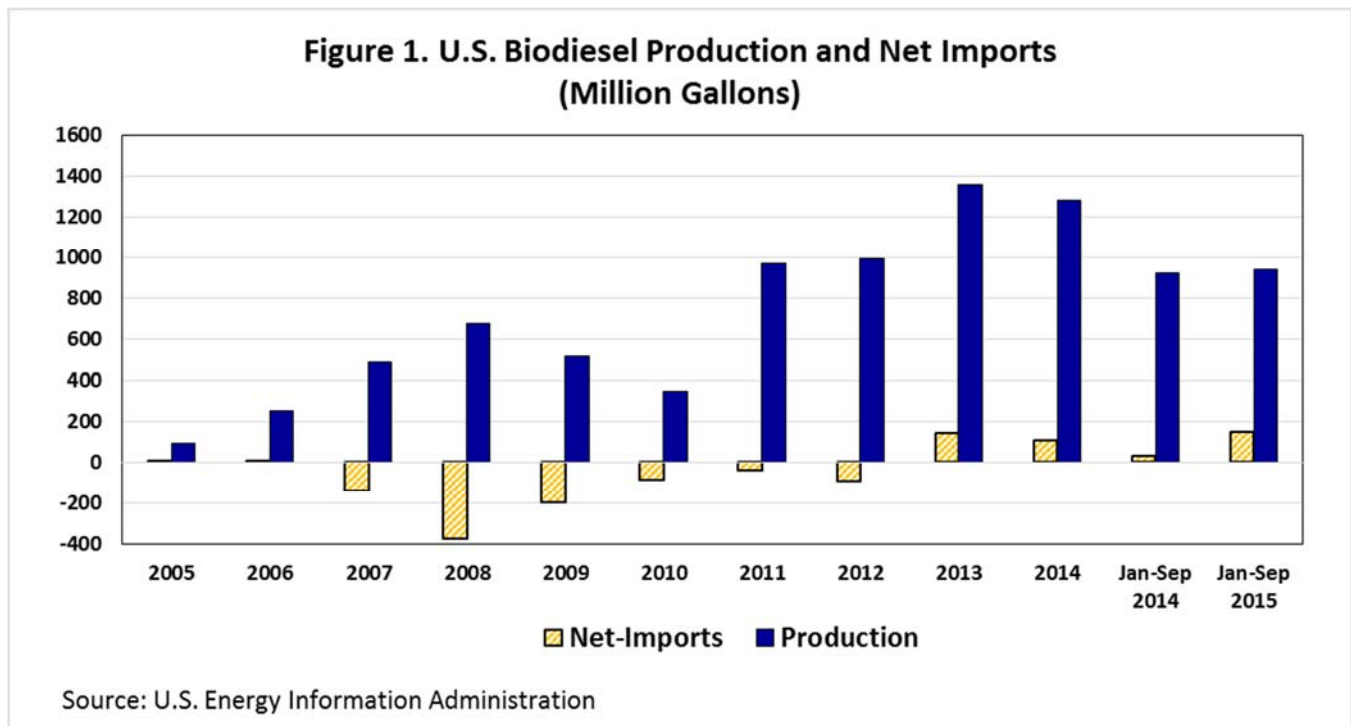


## U.S. Biodiesel Production and Imports (01/14/2016)

Since the second phase of the Renewable Fuel Standards program (RFS) established under the Energy Independence and Security Act of 2007 (EISA), which, among other objectives aimed to raise the production of renewable fuels, the U.S. production of renewable fuel has risen substantially. As Figure 1 shows, U.S. biodiesel production increased from 489.8 million gallons in 2007 to 1.3 billion gallons in 2014. Biodiesel production during the first nine months of 2015 reached a volume of 942.2 million gallons, increasing 2.2% compared to the same period in 2014.

Based on December 2015 data from the USDA (*U.S. Bioenergy Statistics*), in the 2006/07 agricultural marketing year, 13% of U.S. soybean oil production was used to produce biodiesel, whereas in 2014/15 that share increased to 23%. December 2015 data from the *Monthly Biodiesel Production (MBD)* report published by the U.S. Energy Information Administration (EIA), indicated that from January to October 2015, 4.0 billion pounds of soybean oil and 0.9 billion pounds of corn oil were used in biodiesel production. Some other feedstocks used in the biodiesel production during the same period were yellow grease (1.0 billion pounds), canola oil (0.7 billion pounds), and white grease (0.5 billion pounds).

The November 2015 *MBD* report also indicated that as of September 2015, there were 97 biodiesel producers in the U.S. From January to September 2015, the average production capacity was 2.1 billion gallons per year, indicating that 44% of production capacity was employed in the biodiesel production during that period. Iowa has nine biodiesel producers with an annual production capacity of 0.289 billion gallons/year.



In 2013 the U.S. became a net importer (i.e., imports are greater than exports) of biodiesel, mainly in response to rising domestic demand to meet renewable fuel targets and growing access to foreign biodiesel. Imports increased from 35.8 million gallons in 2012 to 342.4 million gallons in 2013. In 2014, U.S. biodiesel imports declined year-over-year to 192.3 million gallons, but the U.S. continued as a net importer of biodiesel with a net import balance of 109.4 million gallons. As indicated by the EIA, biodiesel imports declined in 2014 mainly in response to the uncertainty about the future of RFS target and lack of influx of Argentinian biodiesel by the end of the year. EPA proposed in November 2013 to keep the 2014 and 2015 biomass-based diesel standard at the 2013 level of 1.28 billion gallons (see Table 1).

U.S. biodiesel imports from January to September 2015 rose once again, reaching a volume of 223.2 million gallons, representing an increase of 109.1% relative to the same period in 2014. EPA's proposed biodiesel volumes for 2014 to 2017 announced on May 29, 2015, which were above those announced on November 2013 (see Table 1), may have triggered the increase in U.S. biodiesel imports in 2015. As EIA's data indicates, from January to May 2015, the U.S. imported 32% (71.4 million gallons) of the total 2015 biodiesel imports. It wasn't until June that biodiesel imports started to increase, reaching a volume of 151.83 million gallons from June to September 2015. During the first nine months of 2015 the U.S. net import balance of biodiesel was 150.9 million gallons (See Figure 1).

**Table 1. EPA Biomass-based diesel Proposed and Final Volumes (billion gallons)**

	2014	2015	2016	2017
Proposed Volume Requirement (Nov/2013)	1.28	1.28		
Proposed Volume Requirement (May/2015)	1.63	1.70	1.80	1.90
Final Volume Requirement (Nov/2015)	1.63	1.73	1.90	2.00
Difference (Proposed May/2015 and Final Nov/2015)		0.03	0.10	0.10

Source: EPA

On November 30, 2015 the Environmental Protection Agency (EPA) finalized the volume requirements under the RFS program for biomass-based diesel for 2014 through 2017. The final volumes for 2014 through 2017 are shown in Table 1 above. Compared to the May 2015 EPA's proposed volumes, the final volumes increased 0.03 billion gallons for 2015 and 0.1 billion gallons for 2016 and 2017. Along with the volume requirements, EPA established the associated annual percentage standards for biomass-based diesel that applies to diesel produced or imported in the years 2014 to 2016. The percentage standards are applied to the volume of non-renewable diesel in each of the years and are used by obligated parties (i.e., producers and importers of diesel fuel) to calculate their individual compliance requirements. The final percentage standards for 2014, 2015, and 2016 are 1.41%, 1.49%, and 1.59%. In addition, the spending bill approved by the federal government in December 2015 to fund the U.S. federal government for the 2016 fiscal year, included a tax package that retroactively extends the \$1.00/gallon blender tax credit for biodiesel and renewable diesel for two years (January 1, 2015 through December 31, 2016).

Based on information contained in the final rule for the biomass-based diesel volume requirements for 2014 through 2017 (published on December 14, 2015 in the Federal Register, Vol. 80, No. 239), there are some factors that limit the availability of biodiesel to U.S. consumers, among these factors are: competing uses for feedstocks, foreign competition for biodiesel, the irregularity of the biodiesel tax credit, limited investments to guarantee both quantity and quality of biodiesel, not enough infrastructure to distribute and blend biodiesel, and limited capacity of the market to consume biodiesel.

According to the January 12, 2016 *Short-Term Energy Outlook* report published by EIA, U.S. biodiesel production averaged an estimated 85,000 barrels/day in 2015. EIA forecasts a biodiesel production of 107,000 barrels/day in 2016 and 112,000 barrels/day in 2017. In addition, EIA forecasts that biomass-based diesel net imports will increase 67.9% to 47,000 barrels/day in 2016 compared to 2015 (28,000 barrels/day). EIA expects that biomass-based diesel net imports in 2017 will remain the same as in 2016.