## 冒 ${ }^{\circ}$ ) Biofuels by the Numbers

## Renewable Fuel Standard

The Renewable Fuel Standard (RFS) program is a national policy establishing mandatory minimum volumes of renewable fuels to be used for transportation and heating fuels. The Renewable Fuel Standard calls for $\mathbf{3 6}$ billion gallons of renewable fuels a year by 2022. That's equivalent to $1 / 4$ of the volume of gasoline consumed in 2015. Renewable fuels include ethanol and biodiesel.

Most of the energy contained in biofuels is consumed by the transportation sector.


How much energy is in a trillion Btu? (TBtu):

- Enough to supply 3,195 Americans for a year
- Enough to drive coast to coast 87,000 times
- Enough to fly around the world 12,000 times


## U.S. Transportation Fuel (2014)



Petroleum transportation fuels account for $26 \%$ of total greenhouse gas emissions in the U.S.

## U.S. Ethanol Production:

- The U.S. produced 14,806 million gallons of ethanol in 2015 (96\% of biofuel production)
- 5,209 million bushels of corn between 9/20148/2015 went to ethanol

- Nearly all ethanol made in the U.S. comes from corn
- Ethanol can also be made from non-food sources such as ag and forest waste, woody crops, and switchgrass - these make cellulosic ethanol
- To qualify under the RFS, renewable ethanol must reduce net greenhouse gas emissions by at least 20\%


## U.S. Biodiesel Production:

- The U.S. produced 1,263 million gallons in 2015 (4\% of biofuel production)
- 4,908 million pounds of soybean oil went to biodiesel in 2015

- 56\% of biodiesel feedstock was soybean oil in May 2016
- Biodiesel can also be made from other vegetable oils (e.g. canola), used cooking oils, and algae
- To qualify under the RFS, biomass-based diesel must reduce net greenhouse gas emissions by at least $50 \%$

hardwoodbiofuels.org
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