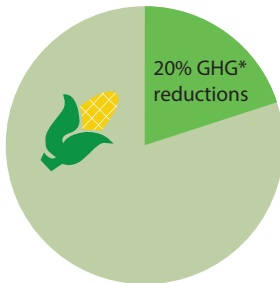


Untangling the RFS

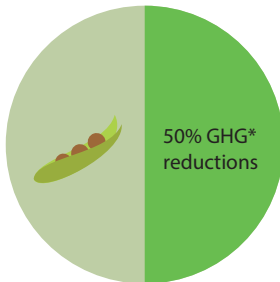
Lifecycle Greenhouse Gas (GHG) Emissions

GHG emissions must take into account direct and significant indirect emissions, including land use change.

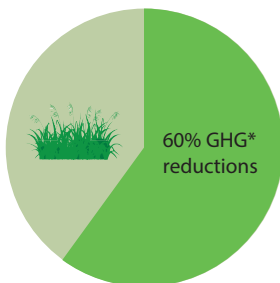
Renewable Fuels



Advanced and Biodiesel Fuels



Cellulosic Fuels



*Compared to a 2005 petroleum baseline

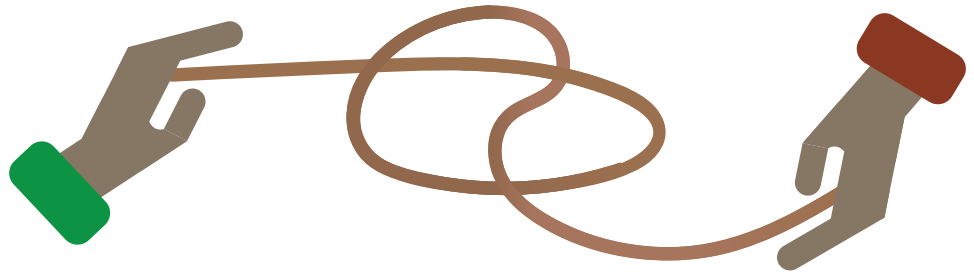


For more information contact Rick Gustafson, University of Washington (206) 543-2790 or pulp@uw.edu hardwoodbiofuels.org



United States Department of Agriculture National Institute of Food and Agriculture

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GOAL: INCREASE ENERGY SECURITY AND LOWER GREENHOUSE GAS EMISSIONS THROUGH RENEWABLE FUELS.

The Renewable Fuel Standard (RFS) is the United States' most significant federal legislation regarding renewable transportation fuels.

The EPA sets the required volume of renewable transportation fuels with the goal of reaching 36 billion gallons in 2022. Each fuel refiner is responsible for blending a set percentage of renewable fuels into their fuel products or purchasing compliance credits, called RINs, from biofuel producers to meet their obligation.

Renewable fuels are classified into four categories and must achieve the specified reduction in lifecycle greenhouse gas emissions to qualify:

- Conventional biofuels – any fuel derived from starch feedstocks (primarily corn-based ethanol)
- Advanced biofuels - made from any type of renewable biomass except corn starch
- Biomass-based diesel – diesel made from renewable feedstocks
- Cellulosic biofuel – made from non-food-based renewable feedstocks

Biofuels made from poplar trees grown in the Pacific Northwest would fall under the cellulosic biofuel category, but at this time, poplar-based biofuels are not a qualifying fuel pathway. A rule to approve poplar as a renewable feedstock was proposed in 2016, but the final rule has not yet been published. You can read more about the EPA's Renewable Enhancement and Growth Support Rule [here](#) and follow its progression online [here](#).

For more information on how the RFS might influence cellulosic ethanol production in the Pacific Northwest, check out this [Extension publication](#) from Washington State University. Lastly, for more nitty gritty, but still non-expert accessible, information about the RFS, read this [icct briefing](#).