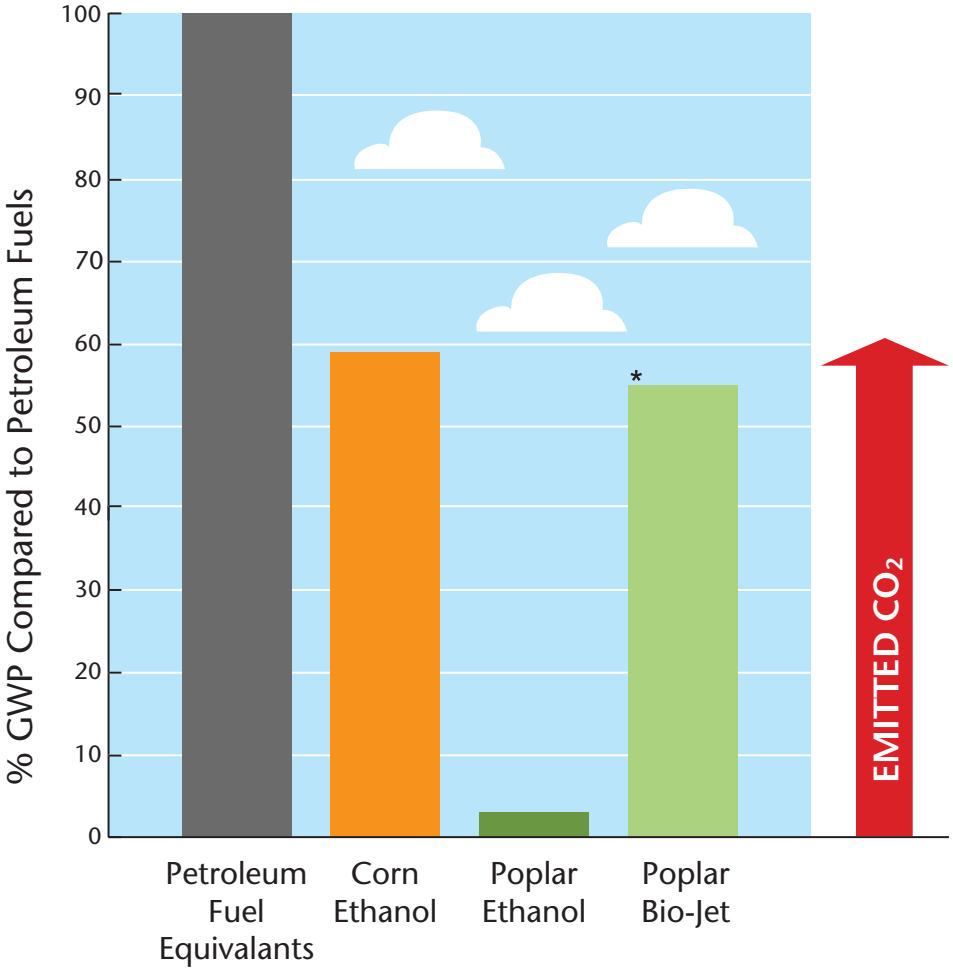
Advanced **Hardwood Biofuels** Northwest

October 2015 Briefing Paper

Poplar Biofuels Reduce Carbon Emissions

Advanced Hardwood Biofuels Northwest (AHB) is a program funded by the USDA National Institute of Food and Agriculture (NIFA). AHB integrates research, education, and extension to develop poplar-based biofuel and biochemical industries in the Pacific Northwest (PNW).

Global Warming Potential



* Researchers are working to reduce the GWP even more!

Global Warming Potential

The Global Warming Potential (GWP) of a product incorporates all greenhouse gas emissions in the fuel's production pathway to the equivalent emission of carbon dioxide (CO_2). In doing so, the climate change impacts of different fuel sources can be easily compared.

Ethanol

In the PNW, poplar trees are a promising feedstock for locally produced ethanol. Poplar-based cellulosic ethanol has a lower global warming potential than corn ethanol and gasoline. In addition, poplar can be successfully grown on marginal land where it will not complete with food crops.

Bio-Jet Fuel

Bio-jet fuel can be produced by upgrading poplar-based ethanol to hydrocarbon fuel using advanced conversion processes. The PNW's aviation industry is interested in bio-jet fuel because it offers a solution to the price volatility of petroleum fuels and it reduces greenhouse gas emissions.

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USDA United States Department of Agriculture National Institute of Food and Agriculture

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