

WHEELS UP WITH WOOD

Planes take flight on wood fuel. Washington state made national news in 2016 when a commercial jet flew from Seattle to Washington, DC, on biofuel derived from wood. Innovative technologies are transforming woody biomass into an economically viable feedstock for low-carbon Sustainable Aviation Fuel (SAF).

BY THE NUMBERS

- 1 dry ton of woody biomass = 75^l to 125^g gallons of SAF.
- Minnesota sustainably produces 2.6 million green tons of commercially available wood residue/waste annually.
- Minnesota forests store 1.2 billion metric tons of carbon and the amount increases every year.
- The carbon intensity of 100% renewable diesel produced from woody biomass is 8.3^g.



It's prime time for a market for Minnesota's woody biomass. Minnesota has a renewable supply of woody biomass that is vast, underutilized, and increasing on private, public, and urban forestlands. Now is the time to put this feedstock to smart use, scaling SAF production, supporting economic gains, and stewarding the environment.

SAYING YES TO MINNESOTA WOODY BIOMASS FOR SAF

PROVEN PERFORMANCE, STEADY SUPPLY

Minnesota steadily supplied an average of 2.4 million green tons of woody biomass annually for the commercial and residential energy markets at the height of utilization for this renewable feedstock. Today, conservative estimates show Minnesota has an annual supply of 2.6 million green tons of sustainable woody biomass supply available for market.

HEALTHY FORESTS, RESILIENT ECOSYSTEMS

Minnesota faces multiple challenges related to over-abundance of mill residuals, forestry residuals, and underutilized tree species. Use of woody biomass for SAF production supports proactive measures to create vigorous and resilient forests, mitigating harm caused by wildfire, insects, invasive species, and disease.

FLEXIBILITY, SAF SCALABILITY

Biofuels derived from woody biomass can be blended with petroleum-based fuels or other biofuels. Use of woody biomass also increases the reliable supply of feedstock, spurring confidence and investment in development of the renewable energy sector.

FORESTRY SECTOR EXPERTISE, ENVIRONMENTAL STANDARDS

Science-based sustainable forest management plans, timber harvesting guidelines, and certification standards are just some of the resources employed by Minnesota landowners, loggers, and natural resource managers to support stewardship, use, and protection of Minnesota's forest resources.



Scan for updates from the Minnesota Forest Resources Council, including the latest on our efforts to go wheels up with wood.

<https://mn.gov/frc/>

1. Klein, B., Scheidmante, B., Hanes, R. J., Bartling, A. W., Grundl, N. J., Clark, R. J., Biddy, M. J., Tao, L., Trinh, C. T., Guss, A. M., Wyman, C. E., Ragauskas, A. J., Webb, E. G., Davison, B. H., & Cai, C. M. (2024). Economics and global warming potential of a commercial-scale delignifying biorefinery based on co-solvent enhanced lignocellulosic fractionation. *Energy & Environmental Science*. <https://doi.org/10.1039/d3ee02532b>
2. Comstock Inc. (2024, August 15). Comstock validates record renewable fuel yields [Press release]. <https://comstock.inc/press-release/comstock-validates-record-renewable-fuel-yields/>
3. Minnesota Clean Transportation Standard Work Group. (2024, February 1). Clean Transportation Standard Work Group: Report to the Legislature. <https://www.dot.state.mn.us/sustainability/clean-transportation-fuel-standard-working-group.html>