



## Performance of Locomotive Engine Fueled with Biodiesel Blend

### PROJECT OVERVIEW

- USE OF MONTANA AGRICULTURE**  
 BNSF will use 20% biodiesel blend in a switch engine at the Havre rail yard for 12 months. The biodiesel will be made from Montana grown oilseed and produced by Earl Fisher Biofuels and MSU-Northern.
- ASSESS ENGINE PERFORMANCE**  
 The project will include detailed engine performance analysis including evaluations of fuel injectors and oil analysis at 3 month intervals, real-time fuel consumption and horsepower monitoring and emissions testing.
- PROMOTE BIODIESEL PRODUCTION**  
 Mobilize oilseed producers and refiners, businesses, governments, railroad industry and other markets to meet potential demand

MSU-Northern has partnered with BNSF railway to demonstrate the effectiveness of utilizing a B20 blend in a locomotive engine. The market for biodiesel is set to expand as energy security and environmental stewardship are considered in management practices for fleet managers. The BNSF Havre rail yard consumes more than 30 million gallons of diesel fuel each year. A healthy, local biodiesel market will assist to create a local market for Montana grown oilseed production, thereby encouraging Ag producers to include oilseeds as a profitable rotational crop.

The project includes partnerships with Opportunity Link, Bear Paw Development Corporation and Earl Fisher BioFuels with support from MT Dept. of Agriculture and MT Dept. of Environmental Quality.

