

# Waste Vegetable Oil Equals Farm Fuel

**Outline Of Need:** The high cost of diesel prompted Greg Nielsen of Gordon, Nebraska, to look for alternative ways to fuel his farm equipment. Greg and his son, Gabe, had experimented with a small biodiesel processor that converted waste vegetable oil from the local quick stops into biodiesel. With fuel costs continuing to rise, they felt the time was right to upgrade, so they started researching the possibilities.

**How Rural Development Helped:** Through the Section 9007 Rural Energy for America Program, Rural Development was able to provide a renewable energy grant in September of 2009 to Greg Nielsen to offset 25 percent of the cost and installation for an HBD250 biodiesel processor. The biodiesel processor is used to make biodiesel for the Nielsen's farming operation.



**The Results:** During 2010, Greg and Gabe made over 850 gallons of biodiesel from 950-1000 gallons of waste vegetable oil. The biodiesel “summer” mix, consisting of 50 percent biodiesel and 50 percent diesel, was used in the Niensens’ tractors last summer. During the winter they used a mix of 20 percent biodiesel and 80 percent diesel. This mixture significantly offset the cost of diesel fuel for the farming operation. The project also benefited the local restaurants, grocery store delis and quick stops by providing disposal for their vegetable oil waste.

Gabe Nielsen by biodiesel processor.

“Making biodiesel is an interesting hobby. It requires precision and hard work. We are continuing to look for additional sources of waste vegetable oil to increase our supply and production efforts,”—Greg Nielsen