

MSU Product Center

For Agriculture and Natural Resources

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Biodiesel - Overview

Products included in the product line

- Biodiesel is defined as a substitute or additive to diesel fuel. Biodiesel can be blended with diesel fuel all the way to 100 percent biodiesel B100. The primary source of biodiesel is soybean oil, although used restaurant grease is also used. The most common blends are 2 percent (B2), 5 percent (B5), and 20 percent (B20) biodiesel.

General market trends and information

- The supply of biodiesel is increasing dramatically. As of May 2005, the capacity of plants dedicated to biodiesel production was 110 million gallons, with another 110 million gallons that could be used from existing plants used for oleochemical purposes. Furthermore, there is a great deal of interest from cooperatives and other firms in increasing biodiesel production.
- There were several provisions in the most recent Energy Bill which fosters the production and consumption of biodiesel. The bill extends the federal excise tax credit for biodiesel of 1 cent for each percent of biodiesel. In other words B5 would get a tax credit of 5 cents and B20 would get a tax credit of 20 cent per gallon.
- Another tax credit for biodiesel producers is the Small Agri-Biodiesel Producer Tax Credit which establishes a 10 cents a gallon for agricultural based biodiesel production. The credit is applicable for up to 15 million gallons of biodiesel produced.
- Regulations dealing with sulfur content in diesel fuel may also lead to an increase in the demand for biodiesel.

Emerging trends

- Most biodiesel facilities are located in the Corn Belt and northern plains; the passage of the energy bill creates additional opportunities in states east of the Mississippi.
- Individual states are increasingly considering and enacting mandates that will increase the demand for biodiesel.
- While current oil and gasoline prices are high, they may not remain that way indefinitely. New sources of petroleum could be discovered which would put downward pressure on both oil and ethanol.

Manufacturing and distribution issues

- The supply chain for biodiesel is still being developed. With the passage of time, the supply for biodiesel may resemble that of ethanol, an industry dominated by large agribusinesses that control the distribution.
- However, diesel has many fleet purchasers. A firm producing or distributing biodiesel may be able to obtain profits by selling to schools, trucking firms etc.
- Since biodiesel is a commodity, minimizing costs is important. As is the case with many commodities, biodiesel production probably exhibits economies of scale.
- The market for biodiesel could explode if more diesel cars were purchased. In Europe, 40 percent of the automobiles run on diesel fuel.
- Ethanol producers need to be integrated fuel distribution system.

Overall assessment of opportunities

- Subsidies and the current state of the fuel market have created opportunities for additional biodiesel plants. However, it is important to be integrated into a fuel delivery supply chain in order to be successful.

Sources

The National Biodiesel Board.

The Des Moines Register.

The Sioux Falls Argus Leader