

Title: Biodiesel Research Progress 1992-1997

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Publication Date: Apr 1998

Summary:

Since the oil shortage during the late 1970s, the United States has imported more than \$50 billion of oil annually, or 52% of its demand. Two-thirds of U.S. refineries have closed. Air pollution remains a threat to human health. Climate change has surfaced as a global concern requiring legally binding solutions. The U.S. farm economy continues to struggle for sovereignty.

For these reasons, the U.S. Department of Energy (DOE) Office of Fuels Development began evaluating the potential of various alternative fuels, including biodiesel, as replacement fuels for traditional transportation fuels. Biodiesel is derived from a variety of biological materials from waste vegetable grease to soybean oil. This alkyl ester could be used as a replacement, blend, or additive to diesel fuel.

This document, funded by DOE, is a comprehensive summary of relevant biodiesel and biodiesel-related research, development, demonstration, and commercialization projects completed and/or started in the United States between 1992 and 1997. This document was designed for use as a reference tool to those evaluating biodiesel's potential as a clean-burning alternative motor fuel. It encompasses federally, academically, and privately funded projects.

DOE chose to review the past 5 years of research for the following three reasons. Research before 1992 revolved largely around vegetable oil, rather than esterified oil, as a direct replacement for diesel fuel. Further, alkyl ester research and development in the United States began with the formation of the National SoyDiesel Development Board (now called the National Biodiesel Board) in 1992. More importantly, DOE anticipates that this compilation will serve as a foundation for the evolution of a 5-year strategy for biodiesel development and improve coordination for future research.

For a complete copy of the report in .pdf format, please visit the National Renewable Energy Laboratory's website at <http://www.ott.doe.gov/biofuels/biodiesel/toc.html>.

Market Segment: General Interest

Accessibility: Public

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