



E³A: Biodiesel Applications for the Home, Farm, or Ranch

Steps in the Biodiesel Series

1. Consumer Issues
2. Oilseed Processing
3. Production
4. Economics

Examining Biodiesel & Biodiesel Production for Personal Use

This series of factsheets examine biodiesel from oilseed processing, to biodiesel conversion, consumer issues and economics. The series is organized into the following four areas:



Consumer Issues

Biodiesel is a fuel produced by combining vegetable oil (or animal fat), alcohol and a catalyst through a process referred to as transesterification. Biodiesel can be used in most diesel engines without any modifications.



Oilseed Processing

Biodiesel is primarily created from vegetable oil, either new oil or recycled oil. The section explores oilseed processing technology and provides a framework for estimating the amount of oilseed feedstock needed to produce a given amount of biodiesel. This section also discusses oilseed meal which is an important co-product of oilseed processing.

Biodiesel Production

The vegetable oil secured in step 2 must now be converted to biodiesel. This section explores the key consideration for biodiesel production. Required equipment, inputs (oil, alcohol and catalyst), and fuel quality issues are presented.

Economics of Oilseed Processing & Biodiesel Production

Once the uses for biodiesel and the process to produce it are understood, then economics can be examined. This section focuses on understanding the capital equipment and operating costs for a biodiesel producer. This will help potential producers create an accurate assessment of the labor requirements, capital investment and operating costs for producing biodiesel.



