



**WHITE MOUNTAIN**



***BIDDIESEL***  
***LLC***

# WMBD

- Decreasing Our Dependency On Foreign Oil Supplies
- Creating Jobs
- Decreasing Greenhouse Gasses By Up To 80%
- Collecting Used Cooking Oil From Local Restaurants

# What is Biodiesel?

- Biodiesel refers to a vegetable oil- or animal fat-based **diesel fuel** consisting of long-chain **alkyl** (**methyl**, **propyl** or **ethyl**) **esters**. Biodiesel is typically made by chemically reacting **lipids** (e.g., **vegetable oil**, animal fat (**tallow**)) with an **alcohol**.
- Biodiesel is meant to be used in standard diesel engines and is thus distinct from the **vegetable and waste oils** used to fuel *converted* diesel engines. Biodiesel can be used alone, or blended with petrodiesel.



# Cradle To Grave In The US



# Seed Oil Crops



# Deep Fryers





Stored  
Used  
Cooking Oil  
On Loading  
Dock



# Pick Up



# Lab



# What happens to the oil once it gets to the plant?

- Sweco Screen-Filters particulates out of the oil to 250 microns
- Centrifuge-Separates water from oil





# CCER

(Counter Current Reactor)

- Converts free fatty acids into Biodiesel using sulfuric acid and methanol



# Transesterification Tank

- Takes Methanol and Sodium Hydroxide (NaOH) and separates the Glycerin





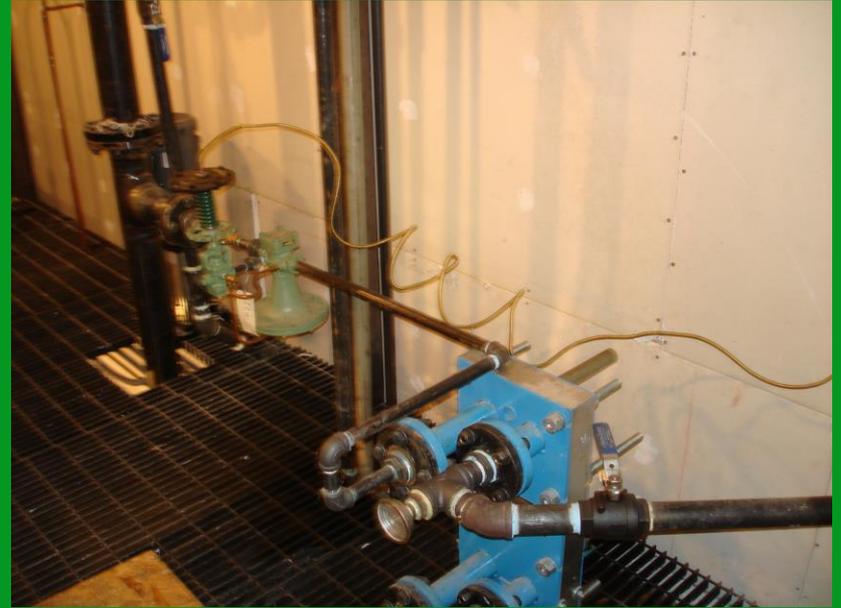
# Nitrogen

- Nitrogen Generator- blankets all tanks with nitrogen and with the oxidizing agent so they don't explode



# Flash Evaporator

- Flash (or partial) **evaporation** is the partial vapor that occurs when a **saturated liquid** stream undergoes a reduction in pressure by passing through a **throttling valve** or other throttling device. This process is one of the simplest **unit operations**. If the throttling valve or device is located at the entry into a **pressure vessel** so that the flash evaporation occurs within the vessel, then the vessel is often referred to as a **flash drum**.



# Methanol Still

- Separates the water and methanol





# Classified Area



# Resin Reactor

- Polishes and finishes Biodiesel



# Blends Of Biodiesel

- B5
- B20
- 100% Biodiesel

# To Your Home/Auto



