

**Biofuel lab: The Production of Ethanol from Sweet Potatoes  
The Production of Biodiesel from Oil, Methanol and Sodium Hydroxide**

**Purpose:** To demonstrate how.....

**Background:**

<http://www.youtube.com/watch?v=TC9h78b2RM4&feature=rec-LGOUT>  
[http://www.ehow.com/how\\_6042008\\_make-biofuel-potatoes.html](http://www.ehow.com/how_6042008_make-biofuel-potatoes.html)  
[http://journeytoforever.org/biofuel\\_library/ethanol\\_manual/manual4-5.html](http://journeytoforever.org/biofuel_library/ethanol_manual/manual4-5.html) (under raw materials, starchy materials section)

**Procedure:** Production of biodiesel (oil source, decanting, washing and drying with water)

- 1.
- 2.

Production of ethanol (malting, fermentation, distillation)

- 1.
  - 2.
- etc.

**Safety procedures and concerns:**

**Observation:** based on lab observations and background youtube video

**Discussion:**

**Conclusion:** importance of modeling  
cost effectiveness  
labor intensity  
safety  
environmental effect...friendly? bi-products?

Remember.... ethanol can be added directly to any gasoline combustion engine as a fuel additive.

biodiesel can be used in any diesel combustion engine.