

## Alternative Energy on Farms

### Why should I consider Alternative Energy?

The price for fuels are at historical all-time highs. The inflation adjusted price per barrel of crude oil has climbed 145 percent since 2002. While energy prices are rising rapidly, farmers' production costs are also averaging all time highs. Due to the increasing costs of agricultural production, farmers are taking action to reduce production costs. The most common practices to lower fuel expenses have been to regularly service engines and to reduce the number of trips over fields. Although these methods do cut fuel costs there are different alternatives that farmers can take. Other methods for cutting energy costs that farmers should consider are: using different technologies for farms and/or switching to a different conservation practice.



### What are the different technologies that are available for farms today?

- ✓ Biofuels
- ✓ Hydroelectric power
- ✓ Biopower
- ✓ Passive solar heating
- ✓ Bioproducts
- ✓ Photovoltaic (solar cell) systems
- ✓ Geothermal heat pumps
- ✓ Solar hot water systems
- ✓ Geothermal direct use
- ✓ Wind energy



## What are some of the different conservation practices that can reduce energy costs?

**Crop Residue Management** – A producer can save up to 3.5 gallons of fuel per acre by going from conventional tillage methods to no-till.

**Irrigation Water Management (IRW)** – IRW involves applying water in a manner that meets the need of the growing plant while avoiding extended soil saturation and runoff.

**Nutrient Management** - Nutrient Management involves proper timing and placement of the right amounts of nutrients and soil amendments for adequate soil fertility while minimizing potential degradation of water quality.

**Precision Agriculture** - Producers can specify the farm input needs (including nutrient and pesticide application, tillage, and irrigation) throughout an individual field by using a guidance system.

**Integrated Pest Management (IPM)** - By incorporating IPM techniques into their operations, agricultural producers can reduce energy use and environmental risk while maintaining the quality of their agricultural products.

## Where can I learn more about alternative energy?

NRCS supports conservation practices that save producers money and improve the environmental health of the Nation. For more information on energy-saving conservation practices visit the NRCS "SAVE ENERGY, SAVE MONEY" Web site at: [www.nrcs.usda.gov/energy](http://www.nrcs.usda.gov/energy). This site provides different energy tools that you should find very useful. For all your conservation needs please visit NRCS on the web at: [www.la.nrcs.usda.gov](http://www.la.nrcs.usda.gov).