

Getting the Most from Your Energy Dollar...

Energy Use on Farms and Ranches

In the past several months, the U.S. Department of Agriculture released two web-based analytical tools for farmers and ranchers. The following energy estimators are designed to identify potential cost savings:

- [Nitrogen](#)
- [Tillage](#)
- (They have also added Irrigation and Animal Housing)

For each major crop and application method, the [USDA's Energy Estimator for Nitrogen](#) presents potential alternative practices and estimates cost savings.

Nitrogen fertilizer accounts for 29 percent of agriculture's energy use, according to USDA research. Proper management of nitrogen fertilizer, including the use of organic sources of nitrogen such as animal manure and cover crops, can save producers energy and money.

Using manure instead of petroleum-based fertilizers could reduce costs up to \$55 per acre, based on February 2006 prices, while adopting management intensive grazing practices can save up to \$6.50 per acre in energy costs and another \$38.00 in reduced harvest costs. In addition, converting from conventional tillage to no-till can save up to 3.5 gallons of fuel per acre with a current value of \$6.83 per acre. Nationwide, reducing application overlap on 250 million acres of cropland could save up to \$750 million in fertilizer and pesticide costs each year and doubling the use of manure-based nitrogen fertilizer to replace fertilizer produced from natural gas could save an additional \$750 million and 100 billion cubic feet of natural gas annually.

Producers using the Energy Estimator for Nitrogen can select up to four crops from a list of commonly harvested crops in their state. Next, they enter the acres of each crop, pounds or units per acre used for each selected form of nitrogen fertilizer, and the nitrogen fertilizer price. Finally, producers select the nitrogen fertilizer application practices, the timing and placement of the fertilizer application and whether or not they use materials that reduce potential nutrient losses to the environment.

USDA intends for farmers and ranchers to use the Energy Estimator for Nitrogen for guidance rather than as a sole source for decision-making on nitrogen fertilizer application. The Energy Estimator for Nitrogen identifies a producer's local USDA Service Center and provides links to state university soil and nitrogen information. USDA recommends that farmers and ranchers take their nitrogen fertilizer estimates to their local USDA Service Center, Extension office, or their crop consultant. To find a local Extension office, visit [USDA's Cooperative State Research, Education, and Extension Service web site](#).

In December 2005, [USDA released the Energy Estimator for Tillage](#) to help farmers and ranchers calculate diesel fuel use and costs associated with various tillage practices.



[Contact Us](#)

[Disclaimer](#)

[Energy Office Home](#)

[Security, Privacy & Accessibility Policy](#)

[State of Nebraska Home](#)

[Webmaster](#)