

ENERGY EFFICIENCY

Why should you be concerned?

Agriculture is an energy intensive industry. Energy for farm operations generally comes from the direct burning of fossil fuels (gasoline, propane, oil, coal) or the burning of fossil fuels to produce electricity. Since these natural resources are non-renewable and costly, one should use them efficiently. Fossil fuels also produce waste materials that contribute to air pollution and greenhouse gas emissions.

An alternative to conventional fossil fuel based energy sources is renewable energy sources. Renewable energy technologies include biomass-based products such as wood, straw, grasses, manure or corn/wheat-based ethanol, and other technologies such as wind, solar, geothermal and small hydro-based power sources.

Renewable energy sources may benefit your operation because they tend to be less expensive than conventional sources over the long term. They also produce fewer greenhouse gases. Although these new technologies are becoming increasingly more popular, some may still require added investigation and time on your part.

You can improve your farm energy efficiency in many different areas: lighting, heating, ventilation, refrigeration, crop drying, feed processing, crop inputs and equipment use. For example, field operations - applying fertilizer at the same time as irrigation water - will decrease your energy use, as well as your time. Many crop inputs, such as fertilizer and pesticides, require energy to manufacture. Using these inputs more efficiently will also reduce your costs, while reducing overall energy use.

Energy efficiency on the farm requires two kinds of action:

1. Reducing the amount of energy used for the same amount of agricultural production; and
2. Increasing the amount of agricultural production using the same amount of energy.

What can you do?

1. Find out how much energy is used for your home and farm operations. Look for ways to reduce the amount of energy consumed and still get the job done.
2. Use chemical fertilizers efficiently. Have your soil tested to find out what nutrients are needed for your crops. Consider other ways to improve the soil, such as crop rotation and better use of livestock manure.
3. Make sure all equipment is energy efficient. If possible, replace old, inefficient equipment or use energy saving devices (timers, etc.).
4. Use this worksheet to find out if you are managing for energy efficiency.
5. Contact your local GO Office for additional information and support, or other appropriate agricultural extension specialist.