

# ENERGIZE YOUR BOTTOM LINE

An energy audit of your farm can help save you money.

By Klaire Howerton

In the farming business, producers are always looking for areas where costs can be reduced and the overall bottom line can be improved. There are numerous means to do this that fit each individual's unique farm – one such way is an energy audit.

According to the Natural Resource Conservation Service, "(a) farm energy audit records and analyses energy used on the farm and recommends actions to reduce energy usage while maintaining (or at times) increasing farm production."

Having one of these audits conducted on your farm can show you where to increase your energy efficiency, and therefore reduce costs in the long run.

On-farm energy audits can be conducted through the NRCS and other similar organizations; the NRCS offers multiple programs, grants and incentives to help farmers and ranchers not just conserve energy, but improve all environmental areas of their operation.

"We're here to help people help their land," said Curt McDaniel, assistant state conservationist for the Missouri NRCS. There are several programs in place to help farmers make use of energy audits.

In 2004, the NRCS's Conservation Security Program (CSP) was the first program that would offer farm energy audits as an enhancement. Many people today utilize the On-Farm Energy Initiative, a component of the Environmental Quality Incentives Program (EQIP) that is also offered by the NRCS. Through a farm assessment, followed by a development of an Agricultural Energy Management Plan (AgEMP), also classified as an on-farm energy audit, the NRCS will help the producer look closely at areas where energy improvements can be made to increase efficiency and reduce environmental impact. Areas of audit focus are the major activity of each individual enterprise on the farm (lighting, refrigeration, ventilation, drying equipment, irrigation and cultural practices) and the components of each activity (bulbs, motors, tractors and other

equipment, fans, etc.). Every major activity on the farm is assessed separately – for example, a livestock program and a crop program would be considered two different enterprises. The residence (or residences) on the farm or ranch are not included in the audit.

The standard conditions for an energy audit to take place, according to the NRCS, are: An overview of each enterprise, a description of the specific tasks of operation, 12 month cost data (this would be utility invoices), major activities that utilize energy resources, and type of energy and electrical service information. Once the assessment has taken place, the farmer or rancher will receive an estimated cost to replace or modify existing equipment, estimated energy and cost savings including assumptions made to calculate the estimates and an estimated simple payback period for implementing each recommendation.

Applications of these audits on the farm can include switching to LED lighting in buildings, increasing insulation for heating and air efficiency, creating proper ventilation in livestock housing, and utilizing cover crops. "We can reduce energy to put out nutrients through vegetative methods," said McDaniel.

Not only does the practice of planting cover crops decrease the amount of energy used to make multiple passes with machinery across a field to spread fertilizer or to till, it also dramatically improves the quality of the soil, and its organic matter.

So what is the value of having an energy audit done on the farm? Simply put, farmers will only see and receive value if they implement the recommended changes.

The exact value will vary by individual operations, but the long term savings and efficiency from an energy audit will help improve almost any bottom line

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