

STAFF PHOTOS J.T. WAMPLER

Gene Pharr installed 10-watt LED bulbs to replace 60-watt bulbs in four out of five of his chicken houses in Lincoln. He estimates the energy savings should be more than \$5,000 a year.

Shine A Little Light

FARMERS USE LED LIGHTING TO CUT COSTS IN POULTRY HOUSES

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Gene Pharr, a poultry grower in Lincoln, knows how hard it is to turn a profit raising chickens.

Lighting five large poultry houses 20 hours a day during the course of a year can be costly, about \$7,500 out of his pocket. But the savvy grower discovered a way to cut his light bill by up to 80 percent.

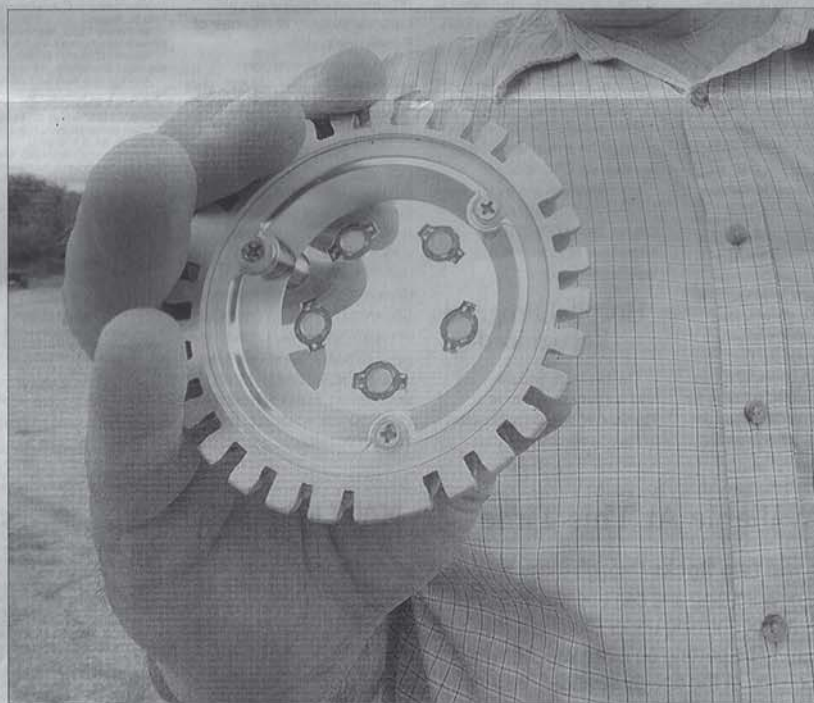
Pharr seized an opportunity last year to capitalize on federal stimulus money available to help farmers reduce energy costs.

"I hired a grant writer who ordered an energy audit for my farm and helped me secure a \$22,000 grant through the federal government's Rural Energy for America Program. I saw this as a chance to update my houses with some government help," Pharr said.

Part of Pharr's grant included \$10,000 to buy and install LED lighting in four of his five poultry houses.

Pharr expects to reap a \$6,000 annual savings in lighting costs now that the new LED lamps are installed. He said a payback in less than two years is just about as good as it gets on the farm.

The new LED lighting application for poultry houses is drawing worldwide attention, according to Chris Callahan, CEO of Next Gen Illumination in Fayetteville. Next Gen LED lamps are working in several hundred poultry houses across a dozen states and the company has recently seen more interest throughout Southeast Asia, according to Callahan.



Pharr holds one of the LED bulbs.

The lamps Pharr installed were made by Next Gen, one of three companies with approved LED light sources for poultry houses.

"I had previously used fluorescent bulbs, but they were not as durable. I lost several bulbs in a lightning strike and they just didn't hold up to dusty, harsh conditions in a poultry house," Pharr said.

Susan Watkins, poultry expert

with the University of Arkansas, has been using LED lamps at the university poultry farm in Savoy for nearly two years and has yet to lose a single lamp.

"I was approached by Next Gen in the fall of 2008 and asked to consider using LED lighting, which is 80 percent more efficient than incandescent lighting sources. We have been blown

away by the results and have worked with Next Gen to get a federal grant for the purposes of trial and distribution of this technology to poultry growers across the state," Watkins said.

Les Reed's farm is one of 18 taking part in the Phase I trial under way by Watkins.

LIGHT: No Rebate Available At This Time

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Reed said five of his 10 broiler houses near Lincoln have the Next Gen LED lamps, and five are using incandescent.

"I have run two flocks through these houses with the new lighting and can't believe how well the birds are performing under the LED lamps. They seem to be putting on more weight, which is a bonus on top of the energy savings," Reed said.

Watkins said the 80 percent energy savings on lights is huge, and strong bird performance is just "icing on the cake."

Growers rely heavily on artificial lighting sources because houses are closed in for a more controlled environment. Alternating from bright to dim to replicate natural light as much as possible, growers can run lights up to 20 hours a day, said Frank Jones, owner of Performance Poultry Consulting in Springdale.

"There is no doubt the growers can use the help to reduce energy costs that have escalated in recent years as they moved away from open-air housing as required by the sponsoring companies," Jones said.

Watkins said Phase II of the federal grant

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LES REED

Farmer participating in trial

being administered by the Resource Conservation District Council includes \$1.5 million of stimulus money to purchase LED lighting for poultry growers in Arkansas.

Growers who want to take part in the government effort can get one house outfitted. Most houses use about 50 lamps.

Watkins is using LED lamps made by three different manufacturers, including Next Gen Illumination in the trial.

"The lights range in price from \$30 to \$45 each and we are hoping as demand picks up the price will come down further," Watkins said.

Jones said the capital outlay is the biggest hurdle for farmers that have found themselves living paycheck to paycheck in recent years. He encourages growers to jump in and take advantage of the federal help to outfit one house.

At roughly \$40 per light,

the \$1.5 million grant could put lights in about 750 poultry houses.

"We would like to see the federal money leveraged so that a broader application can be applied. Perhaps power companies could look at rebates for farmers making the upgrade and poultry companies could also kick in a few dollars per light," Callahan said.

Watkins said Southwestern Electric Power Company is working in Texas on a possible rebate program, but there isn't one available in Arkansas at this time.

FAST FACTS

BULB LIFESPANS

- ▶ A standard 60-watt incandescent bulb has an expected lifespan of 1,000 hours.
- ▶ A 10-watt LED bulb has an expected lifespan of more than 50,000 hours.

SOURCE: U.S. DEPARTMENT OF ENERGY