CWF FARMER PROFILE:
Lee Bigham

Marshall County
Big Blue Watershed
Elm Creek tributary to
Big Blue River

By Connie Pantle

One of Lee Bigham's registered shorthorn cows drinks water supplied from a windmill pump, now powered with a gas engine. Lee revitalized the windmill using CWFP cost-share funds in order to improve grass management. Photo by Connie Pantle

Water Quality Concerns:
- Lack of water in one pasture
- Need for fencing for management intensive grazing program
- 20.3 acres of abandoned cropland due to flooding
- Manure management

Best Management Practices Implemented:
- Sowing former cropland to grass
- Installing fence
- Establishing a water source to improve grass management and control cattle access to stream

Blue Rapids, Kansas—For Lee Bigham of Elbee Farms near Blue Rapids, raising shorthorns is a family tradition. Lee's grandfather started raising shorthorn cattle over 75 years ago, although the current line of Shorthorns began when Lee's dad, Leonard, imported a bull from Ireland in the 1970's. Lee has continued this tradition by producing "Gizmo" the fifth most popular AI sire in the shorthorn breed (American Shorthorn Association's "Shorthorn Country" magazine, February 2006).

Lee currently runs 80 head of cattle with about 90 percent of the herd being pure shorthorn. Lee sells the calves for seed stock and 4-H projects. On the 840 acres, of Elbee Farms, 200 acres are in forages for the cattle herd.

To assist Elbee Farms in carrying on its traditions, Lee decided to make a few changes. It was then that the Kansas Rural Center's Clean Water Farms Project Field Organizer Mary Howell brought the River Friendly Farms Project (RFFP) environmental assessment to Lee's attention. "I read it over and decided it was something I thought would be good," he said.

Lee said that the notebook "helps farmers with solutions to preserve the family farm." Mart felt Lee was a good candidate to complete the notebook, because she said, "Lee tries very hard to do the things that are right for his operation, as well as making environmentally sound decisions."

After completing the environmental assessment, Lee decided to cost-share because "it looked like the things that KRC was willing to cost-share were the things that would help my operation." Those items included the following best management practices: sowing former cropland to grass, installing fence and establishing a water source to improve grass management and control cattle access to the stream.

When flooding occurred in the summer of 1993, Elm Creek (which runs directly into the Big Blue River) overflowed from its banks and Lee said he had massive amounts of water coming across his property. Not only did Elm Creek flood, but it also moved from its original channel, leaving nearly 30 acres with limited access. Lee said the field "was considered high class farm ground" and he wanted it

put back into production. Therefore Lee, along with CWFP staff, evaluated what he should do with the acreage.

"I was aware of the piece of high-quality farmland that was isolated after Elm Creek changed its course during the 1993 flood. With the grass and grazing knowledge I have, I thought maybe he would find a crop that would work for that piece of land. It adjoins some of his pasture, so it would be a good fit in a grazing program," stated Mary.

Lee decided to plant eastern gamma grass on 20 acres of the isolated field. There is approximately another 10 acres of cool season native grass that is seasonally grazed, Lee said. The gamma grass is ideal for a vulnerable flood plain like that along Elm Creek as its large root mass helps keep soil intact. In addition to planting the gamma grass, Lee repaired the existing fence and installed flood gaps across Elm Creek.

Lee learned to be flexible throughout the project. Originally, Lee received an EQIP grant through the local Natural Resource and Conservation Service (NRCS) office to drill a well and run water lines to tanks throughout the pasture.

After repeated attempts, no water was located. Therefore, Lee resorted to using the existing well beneath a windmill. "Water was just where the (existing) windmill was," he said.

Another obstacle that Lee faced was the lack of electricity on the farm. Since Lee learned it was cost-prohibitive to run electricity to the site, he installed a gas engine on the pump. Again, Lee faced adversity when that new gas engine didn't run. After learning it was a manufacturer's defect, he eventually replaced it. Now the gas engine is used to pump water from the well into a large tire for a tank. He said the black rubber serves as an insulator and the tank rarely freezes. When it does, he is able to break the ice by bumping it with his truck.

Lee has also received additional EQIP funding for pasture renovation and cell fencing which he will complete over the next several years. While he's had obstacles to overcome, Lee hopes the improvements he's made will help him to continue the tradition of Elbee Farms that started generations ago.

Lee examines the stand of Eastern gamma grass. The strong root system of the gamma grass helps hold soil in the flood prone pasture. *Photo by Connie Pantle*

Lee looks out across Elm Creek which flooded in 1993 cutting steep banks and even a new channel in the process, deserting a 20 acre pasture. *Photo by Connie Pantle*