

“We want to enjoy our farming operation while reducing or eliminating chemical use... we want to promote wildlife habitat, practice soil conservation, provide quality food for ourselves and the public, and provide a good environment for our children.”

Tim Kunard

**Tim & Bridgette
Kunard
Miami County**

**Conversion of Cropland
to Grass &
Implementation of
Management Intensive
Grazing System**



Cooperator:

Tim and Bridgette Kunard
22350 Pressonville Rd.
Edgerton, Ks. 66021

Watershed:

Hillsdale Lake

Water Quality Concerns:

Runoff of soil, fertilizer and chemicals from cropland into Hillsdale Lake

Demonstration

- * Conversion of cropland to grass;
- * Implementation of rotational grazing system.

When Tim and Bridgette Kunard applied to the CWFP, they were searching for ways to make the most profit from their 112 acre farm, while doing right by the environment and providing a healthy environment for their four young sons. They had farmed more in the past, but had lost access to some of that land, and they had leased the 112 acres they owned out.

Because they live within two and a half miles of Hillsdale Lake, the state’s newest reservoir, they were concerned about what run-off from

the conventionally farmed land might be contributing downstream. They were also aware of the challenges of maintaining a farm in an area seeing an increasing amount of urban sprawl. They also thought about what they wanted for their family and the farm overall.

“We have several goals,” Kunard stated at a farm tour last year. “We want to enjoy our farm while reducing or eliminating our chemical use and minimize our equipment needs. We want to promote wildlife habitat,

practice soil conservation, provide quality food for ourselves and the public, and provide a good environment for raising our children.”

With a CWFP grant, they converted their 75 acres of cropland to grass, installed a livestock watering system, and implemented a management intensive grazing system for about 30 head of cattle.

The waterline work began in the spring of 1999, with Tim and his brother providing the labor to trench and install 4500 feet of waterline with risers spaced about every 420 feet.

Tim planted the 75 acres of cropland to a grass seed mix of medium red clover, smooth brome grass, orchard grass, Tall Fescue-K31, Alfagraze Alfalfa and Marion Lespedeza. He tested the soil first, and applied phosphorous, pot ash, and lime before no-tilling the mix into residue in the fall of 1999. He installed the fences in the spring of 2000. Fencing is high tensile electric fence and fiberglass fence posts.

The land is divided into paddocks about 425 feet by 600 feet using electric fence and electric fence tapes, although the land contours altered some of the paddocks into various sizes and shapes.

Although it usually takes a while for a grass stand to get established, Tim was lucky. He was able to put cattle on his new grass in the summer of 2000.

He rotates the cattle through the paddocks so that each paddock has about 50 days to recover. He has not



A lush mix of grasses including red clover, Alfagraze alfalfa and Marion Lespedeza now cover the 75 acres of former cropland. KBS installed three groundwater samplers and a runoff sampler to monitor cropland undergoing the conversion to grass. See Appendix.

had any problems with cattle bloating on the legumes, but doesn't know why. "I get calls from other grazers wanting to know what my secret is, but I don't know. I do use my head about grazing legumes," he says. "I never turn the cattle into a paddock where the legumes are lush and growing rapidly. I want the seed heads to be formed or forming. I also try to have the cattle partially fill up on grass or hay before I turn them in."

He still bales some hay and feeds in the winter months, but his feeding season is relatively short. He also feeds bales in areas he feels need improvement. He lines the hay bales up about two cow lengths apart, then he strings polywire fencing around the bales and moves the polywire to feed a couple of bales at a time. This way the cows are spreading the manure and he avoids creating mud holes and tractor ruts.



At a summer tour, Tim demonstrated how he and his young sons can easily and quickly move electric fence, and thus move cattle into fresh grazing paddocks.

The grazing system also appears to be more profitable than his crops were. Analysis of his costs for conversion to grass, production costs for crops based on KSU Farm Management guide information, and average costs for cattle, indicate that profits from his grazing system are \$45.05 more per acre than for soybeans.

Costs are lower because he has eliminated fertilizer and herbicides.

While protecting the environment and practicing conservation is obviously important to the Kunard's, so is making a profit. An important part of their farm is developing an alternative market for their production.

While they sell some calves at the cattle auctions, they sell more and more directly to consumers. The customer has the choice of having their beef fed out on grain or grass. They rely on word of mouth marketing, and a "Kunard Farms" newsletter that goes out to any customer.

Besides beef, they offer chickens, eggs and vegetables, to a customer base of about 60 families. Tim grudgingly admits that Bridgette is probably doing as well if not better with chickens than he is with cattle!

Kunard Farm Characteristics

Farm Size: 112 Acres

Crops: Mixed grasses incl. red clover, orchard grass, Alfagraze alfalfa, Marion Lespedeza, brome, Fescue K-31

Livestock: 30 Mixed Red Devon, black and red angus; Poultry- 700 broilers, 200 layers.

Labor and Management: Family.

Livestock Management: Management Intensive Grazing for cattle; Poultry are pasture raised in moveable pens, including a moveable shed for the layers.

Weed Management: Mows the paddocks after cattle have grazed.

Insect Management and Disease Management: Nothing. Alfalfa weevil can be a problem; plans to interseed red clover this year.

Soil Fertility: Interseeded legumes appear to supply adequate nitrogen. Has not done soil tests since sowing the grasses.

Water Quality Management: Sowed erodible cropland to permanent grasses; eliminated chemical fertilizers and herbicides.

Marketing: Sells some through livestock auctions, but direct markets some beef and all of their poultry.

Profitability Indicators: Analysis of old production costs and new system appear to show grazing system is more profitable. See above.