

**Doug and Laura
Fortmeyer
Brown County**

**Rotational Grazing
& Composting
Dead Animals**



Cooperator:

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Water Quality Concern:

Disposal of dead animals as rendering plants will not pick up dead sheep; manure run off from livestock facilities, and fertilizer and chemical run off from cropland.

Watershed:

Walnut Creek

Demonstration:

- * Seed highly erodible cropland to permanent forages
- * Extend the grazing season via expanded MIG system
- * Build a low-cost composting structure for dead sheep

Laura and Doug Fortmeyer moved back to the farm of Doug's retired parents in 1993. At the time this 190 acre Brown County, Kansas farm was about a 75/25 mix of cash grains and older permanent pastures. Doug's father had done a good job of establishing and maintaining conservation structures and practices on this farm, but the highly erodible land still was vulnerable to soil erosion. Plus, the region has water quality problems associated primarily with atrazine runoff.

Doug and Laura were not interested in a machinery based cash grain operation. Instead they moved to the farm with the goal of making their living primarily by using a management intensive grazing enterprise with sheep (primarily breeding stock). The process of converting the annual cropland to high yield forage production for grazing has helped the Fortmeyers address area water quality issues while also helping them further their farm goals.



Doug (left) and Laura Fortmeyer moved to their Brown County farm with the goal of creating a grass and forage based sheep farm. They have a flock of about 120 ewes with about 200 lambs born each spring. The conversion of highly erodible cropland to grasses has reduced soil erosion and run-off of fertilizers and herbicides.

Sheep are the Fortmeyer's main enterprise. As they converted cropland to forage production, they developed a flock of 120 Katahdin ewes. It is a breed of hair sheep which do not produce a wool fleece, are not sheared, and have relatively low maintenance requirements compared to most woolled breeds. About 200 lambs are born each April-May.

With CWFPP cost-share, the Fortmeyers seeded parts of the cropland to annual forages such as triticale and clover, and other parts into a perennial mix of fescue and red clover, which is stockpiled during the late summer for winter grazing. (Fescue maintains good nutritional quality under winter conditions, making it a good winter forage.)

The Fortmeyers base their sheep operation on a management intensive grazing system, moving the sheep through a system of paddocks year round, and relying solely on grazing for at least nine months of the year.

As stockpiled fescue runs out in early to mid-winter, the Fortmeyers

feed legume/grass hay that was harvested during the lush growing period of late spring, early summer. For the last five years the Fortmeyers have not had to feed grain, protein or energy supplements. They select breeding replacements for maternal performance, growth, and overall adaptation to the forage-based, low-input management system.

As is typical of many farms, the livestock wintering facilities were located in a protected but highly erodible area near a pond and stream, and close to a hay storage barn. The build-up of manure in these areas during winter use can pose a serious water pollution threat, especially when spring rains come. It also creates poor conditions for livestock health.

Winter grazing fescue under a management intensive grazing system allows the Fortmeyers to keep sheep out on pasture for much of the winter greatly reducing the use of the farmstead corrals for wintering facilities, thereby protecting water quality and reducing animal health risks.

With controlled grazing the Fortmeyers can also maintain a good forage base for lambing pastures. As lambing begins, the Fortmeyers put ewes on fresh pastures where they have access to quality forage and are in paddocks small enough for easy monitoring.

Water is a central component for any livestock system. Fortunately, sheep do not require as much water as other livestock species. Lactating ewes and lambs in early summer consume the greatest quantities. The Fortmeyers haul water in a converted 100 gal. spray tank to wherever the animals are grazing. The downside of this system is that it can be time consuming, especially during late summer when there are several groups of sheep grazing separately.

But on the upside, this system has not required new capital investment in a piped water system, it allows a great deal of flexibility in animal placement, and as water tanks or tubs are filling it provides the opportunity to observe the animals and

attend to other details in the paddock. Though there are three ponds on the farm, the Fortmeyers do not water animals directly from them, and in time they plan to do more water system development.

Every livestock operation encounters death losses from time to time. Typically farmers call an animal rendering service when death losses occur and have the dead animal picked up. Sheep producers do not have this option, since animal rendering services will not accept sheep.

Dead animals are difficult to burn and can be difficult to bury. Dumping the dead animal body for scavengers to clean up can encourage predators and pose disease and water pollution threats. The Fortmeyers read about composting dead animals and thought this practice would work in their operation. Supported by a CWFPP grant, they did a bit of research and found a low cost, effective way to compost animal mortalities.

Their plan greatly reduces the use of the corrals for wintering facilities, thereby protecting water quality and reducing animal health risks.



Since animal rendering services will not accept sheep mortalities, the Fortmeyers built a small composting facility to handle their animal losses. This system, consisting of a round bale feeder on a cement pad and sawdust, has proved successful for small losses.

They took an old round bale feeder to use as a composting bin and placed it on a cement pad in an area away from any water supply or runoff. They maintain a supply of sawdust to layer on the bottom and to cover dead animal remains as they are added to the bin. The loss of animals occurs primarily during lambing, and consists mostly of newborn lambs and an occasional ewe.

Though it takes some time for the animals to completely decompose, the composting process has worked very well. There is no odor or fly problem and all that is left after the composting process are pieces of bone. Water leaching through the compost has not been a problem because the saw dust is so absorbent. The number of dead animals has been small, so this simple system is very adequate for the volume. And, they've had no problems with scavengers .

The Fortmeyers sell their annual

lamb crop through a variety of markets. Typically, they sell about half the crop as registered or commercial breeding stock. They keep about 25% of the ewe lambs as flock replacement, and direct market 15-20 male lambs as freezer lamb. Ten to twenty percent of the lambs are sold to herd dog trainers (as non-breeders). And they sell most of the remainder for slaughter through ethnic market channels. The Fortmeyers seldom use conventional commodity lamb markets.

While the Fortmeyers are pleased with the plant diversity on their farm, future plans are to diversify the livestock species over time to better utilize forage and marketing opportunities. Future plans include cattle and possibly guard donkeys, poultry and a few sows. They also intend to develop alternative shelter options for both winter and summer. But based on what they've done so far, maintaining water quality and environmental protection will be part

Fortmeyer Farm Characteristics

Farm Size: 190 A. ; includes 90 acres long-term pasture; 90 acres are cropland converted to permanent or annual forages.

Crops: No grain crops; all forage including mixed stands of brome, orchard grass, fescue and legumes.

Livestock: 120 Katahdinö ewe sheep. 200-225 lambs each April-May.

Equipment: Small tractor, mower, water cart, 4-wheeler, swather, square baler, 5' shredder

Labor & Management Practice: All family labor.

Crop Management Practices: The crop is mixed forage pastures, some of which may be hayed. Grazing is managed for diversified forage species and extended grazing seasons.

Livestock Management Practices: Animals are selected & managed for year round pasturing. Hay supplements fed during late winter and in heavy snow cover.

Weed Management: Not a problem in the grazing system.

Insect Management: Not usually a problem. Some problem with alfalfa weevil in 2000. Grazed for control.

Disease Management: Keep animals on permanent forage. Prevent disease by avoiding concentrations during wintering, hay feeding, watering, lambing, etc.

Soil Fertility: Interseeded alfalfa and red clover for nitrogen production. Disperse manure through MIG system. Periodic soil testing for P & K.

Water Quality Management: Maintain permanent grass cover. Move animals frequently with MIG. Avoid concentrating animals at vulnerable areas. Compost animal mortality.

Crop Yields: Forage crops are managed for vigorous growth, species diversity with emphasis on legumes, palatability, and extended grazing season.

Profit Strategy: Keep production costs low. Sell animals into higher value markets. Primary market is for breeding stock; direct market some meat products.