

# CONSERVATION *Showcase*



## Whiterock Conservancy Implements New Grazing System

*Jason Johnson, Public Affairs Specialist, April 2010*

A non-profit land trust in Coon Rapids is utilizing federal assistance and a state low-interest loan program to help implement a rotational grazing system to improve soil and grass conditions, and increase biological diversity on 700 acres of rough terrain pasture along the Middle Raccoon River.

Whiterock Conservancy is dedicated to conserving and protecting Iowa's natural resources, demonstrating sustainable rural land management, and engaging the public with the environment through outdoor recreation and education.

Tolif Hunt, executive director for Whiterock Conservancy, says another objective is economic sustainability, which is why they are leasing the land for grazing purposes. "We try to find ways to work with rural landowners to implement land management techniques to help foster a healthy, resilient environment, while at the same time remain economically viable," he said.

Dan and Erin Hanrahan of Guthrie Center represent Brad Z Ranch as the new tenant farmers for Whiterock. The young couple began grazing 260-head of Angus and Simmental/Angus Cross last fall in a rotational grazing system designed by the USDA's Natural Resources Conservation Service (NRCS). The pasture had been mostly open grazed by another producer.

The Hanrahans were chosen from a select group of cattle producers interested in the grazing land. "It is very important to have a tenant who has the flexibility to work with some of the same ideas we have," said Hunt. "It's really appealing to have next generation farmers for this long-term proj-



*The Hanrahans will graze Angus calves on the Whiterock Conservancy pasture.*

ect. That's the point of sustainability – it's long-term and that's what we were looking for in a tenant."

### **Strip Grazing**

The Hanrahans will graze three to four smaller herds in paddocks throughout the 700-acre pasture, which Erin Hanrahan says will allow for more intensive breeding groups. The couple implemented a strip grazing system in a 150-acre section of the pasture last year. Strip grazing is similar to traditional multi-paddock grazing systems where cattle are moved from paddock to paddock, according to forage use and other factors. In strip grazing, however, cattle graze for a shorter time period in typically smaller areas.

Jason Hart, soil conservationist with NRCS, says strip grazing allows for more flexibility. He says the size of each paddock and the

frequency of each rotation will depend on the time of year, forage availability, herd size, and weather. “The cows may only need five acres the first few days of spring and might waste extra grass in a larger paddock, so that’s why we developed this system,” said Hart.

Strip grazing also improves the potential for year-round grazing. Erin Hanrahan says winter grazing is a long-term goal. “We would really like to get to that point, especially after this past winter when we were short on hay, just like everybody else,” she said. “It makes this system even more enticing.”

Hart says keys to 12-month grazing include a frost-free water source and locating cattle close to the road, in case ice or other difficult winter conditions hamper winter grazing.

### **Other Benefits**

A major benefit Hunt sees in rotational and strip grazing over open grazing is productivity. “Per acre, there is no doubt we will see better forage production with rotational-type grazing,” he said.

Another advantage Hunt sees is less inputs. Instead of manually fertilizing the pasture, the cattle are doing the work. “This is a system of fertilizing and grazing through management,” he said. Manure is also more evenly distributed throughout the pasture in a rotational system.

Other benefits of rotational and strip grazing include better weed and brush control, reduced erosion from greater residual vegetative cover, more regular and predictable labor needs, increased stocking rates and easier to handle livestock.

### **Water Source**

Whiterock installed a state-of-the-art watering system within the strip grazing system where cattle travel no more than 700 feet to access water, which aids in better manure management. A pressure pump constantly feeds well water through pipeline. The con-



*Dan and Erin Hanrahan*

stant pressure pump was necessary to mitigate water hammer within the pipeline. Water tanks can be easily moved by the Hanrahan's with an ATV to allow better livestock accessibility. Overall, the project includes a half-mile of buried pipeline and 4.5 miles of above ground pipeline.

### **Fencing**

The new Whiterock grazing system includes 6.5 miles of easily-moved, one-strand, high tensile fence. An added feature is fiberglass posts every 50 feet that are nearly indestructible and help the Hanrahan's calculate the exact size of each paddock when moving fence.

The 700-acre project also includes three miles of 4-strand permanent fencing, which will surround seven ponds and wetlands, and 4-strand high tensile fencing with mule corner posts and fiberglass posts. “We installed different fencing around the ponds to conduct a little research for cost and analysis comparisons,” said Whiterock Conservancy Farm and Land Manager Darwin Pierce.

### **Herd Expansion**

Whiterock Conservancy and the Hanrahan's both share the goal of increasing the herd size. Hunt believes the Hanrahan's will be able to utilize more acres as pasture conditions improve throughout the complex. “We hope to completely eliminate the need for cutting and baling hay, and that would obviously require an increase in herd size,” said Hunt.

### **Conservation Programs**

Hunt says financial and technical support through two USDA programs – the Environ-

mental Quality Incentives Program (EQIP) and the Conservation Reserve Program (CRP) – and the time and effort that Hart and other NRCS staff members sunk into the project helped the grazing project get off the ground.

EQIP, administered by NRCS, offers producers financial and technical assistance to install or implement structural, vegetative and management practices on eligible agricultural land. EQIP funds helped offset the cost of the water pumping plant, pipeline, watering tanks, most of the interior paddock fencing, and pasture and hayland planting for warm season grass blocks.

CRP, administered by the Farm Service Agency (FSA), covered up to 90 percent of the cost of filter strips around ponds and wetlands, permanent fence to exclude livestock from ponds and wetlands, pipeline to provide an alternative watering source for livestock, and watering tanks.



*The Whiterock Conservancy grazing project took the cooperation of several partners, including (from left) tenant farmers Dan and Erin Hanrahan, Whiterock Executive Director Tolif Hunt, Ecologist Elizabeth Hill, Farm & Land Manager Darwin Pierce, and NRCS Soil Conservationist Jason Hart.*

In addition to federal program assistance, Whiterock Conservancy is taking advantage of the State Revolving Fund (SRF) Low-Interest Loan Program to spread out the remaining cost of waterline and interior fencing over several years.

### **Other Features of Whiterock's New Grazing System**

- Cool season pasture grasses will be supplemented with 10-20 percent native grasses to improve wildlife habitat and to help in dry years.
- An emergency cattle ramp to provide access to a pond if the watering pump or electricity is not working.
- Thirty-one acres of filter strips was added around ponds and near waterlines.
- Soils will be tested regularly to monitor for improvements in overall soil quality and fertility.
- Prescribed burning will be conducted to increase plant diversity and grass growth.
- A baseline wildlife survey was taken on the land in 2006 to research the impact of rotational grazing on the land over time, compared to open grazing. Information was gathered on birds, plants, butterflies, mammals, reptiles and amphibians.

For more information about rotational grazing, visit your local NRCS office or find "Profitable Pastures: A Guide to Grass, Grazing and Good Management" on the Iowa NRCS Web site at [www.ia.nrcs.usda.gov/news/brochures/publications.html](http://www.ia.nrcs.usda.gov/news/brochures/publications.html).

For more information about Whiterock Conservancy, visit [www.whiterockconservancy.org](http://www.whiterockconservancy.org) or call 712-684-2697.