

## CWF FARMER PROFILE:

# John Rempe

## Nemaha County

### South Fork of the Big Nemaha River Missouri River Basin Watershed

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### Vermillion Creek Middle Kansas Watershed

By Connie Pantle

*Corning, Kansas*—John Rempe and his son Dan operate a typical diversified family farm near Corning, Kansas, raising cattle, corn, beans, milo, alfalfa, sudex and grass, as well as managing a hog operation. But the farm's location has a unique feature.

Just behind the farmstead north of Corning in southern Nemaha County, the South Fork of the Big Nemaha River flows north, eventually ending up in the Missouri River. And in the farm's pasture just three miles south of the farmstead, Vermillion Creek flows south to the Kansas River. Thus the water leaving the Rempe farm meets up again where the Kansas River joins the Missouri River 125 miles away.

Because of this unique feature of his farm, John was especially interested in the quality of the water leaving the farm. With the help of Ed Reznicek, CWF-RFFP Field Organizer, John completed the Kansas Rural Center's River Friendly Farms environmental self assessment. According to John, completing the notebook, gave him ideas on how to make improvements on his farm. "I learned quite a bit that you can do," he said, "to improve water and hold soil from erosion."

Using this knowledge, John went to work to improve water quality on his farm. John was approved for CWF-RFFP cost-share funds to implement several water quality projects including:



*John Rempe stands by the waterer he installed below his pond using CWF-RFFP cost-share funds. John also fenced the pond, eliminating the cattle from contaminating the water and reducing erosion to the pond's banks.*

*Photo by Connie Pantle*

### **Water Quality Concerns:**

- Runoff from feedlots into creek
- Limit access of livestock to pond and streams
- Unplugged well

### **Best Management**

### **Practices Implemented:**

- Relocated of cattle lot away from creek
- Installed sediment basin
- Established creek crossing
- Fenced creek
- Implemented alternative watering site away from creek
- Built an alternative windbreak
- Installed below pond waterer
- Fenced pond

relocation of a lot away from the creek; installation of a sediment basin; establishment of a creek crossing, an alternative watering point and a wind-break; fencing a pond, and installation of a waterer.

As they often were years ago, some of the buildings and lots on John's farm were built near a creek. To comply with the renewal of his Kansas Department of Health and Environment (KDHE) livestock waste permit, John needed to move his lot further away from the creek. John uses the lot as a calving pen for his 130 cows.

"The concern was the amount of water coming off the building and crossing the lot," John said. By crossing the lot, the rainwater then becomes contaminated by the livestock waste in the lot. A grass buffer strip would filter the nutrients out before reaching the creek. Therefore, John installed a buffer strip of brome between the lot and the creek, which is a tributary to the South Fork of the Big Nemaha River.

"Keeping livestock back from the creek allows drainage across grass sod before it hits the creeks," he said. After the cows have their calves, he moves them out to the winter pasture. This reduces the amount of time the cows spend in the lot, which in turn reduces the amount of waste in the lot.

To address runoff from another lot—the finishing lot for 130 calves—KDHE asked John to revamp the terrace that was being used to filter runoff before reaching the creek below. Working with Joe Harner, Kansas State University Extension engineer, and Mike Christian, KSU Watershed Specialist, and KRC's Ed Reznicek John was able to find a solution.

Where the terrace once was, John installed a 250 foot sediment basin below the lot. The basin is drained by large PVC pipes with distribution outlets into a three acre grass buffer, allowing the grass to filter and utilize the nutrients from the water before reaching the creek. John said the basin needs to be manually cleaned out occasionally, but for the most part seems



**TOP:** John Rempe moved the lot back from the creek and planted a brome filter strip to help remove nutrients from runoff. He also installed a creek crossing and fenced the creek as shown in the foreground. **BOTTOM:** The sediment basin on John Rempe's farm detours the runoff from the lot. The runoff is filtered through PVC pipe and then three acres of grass before reaching the creek below. Photos by Connie Pantle

to work well to contain the runoff from the lot. KDHE approved the changes and approved the renewal of John's livestock waste permit.

In addition, John said he wanted to "keep the cattle out of the creek and keep the water clean." To accomplish this, a tube was installed in the creek to serve as a crossing for the cattle. The creek was then fenced to exclude the cattle. The cattle now rely on a waterer up the hill constructed from a recycled earthmover tire. Since the cattle are kept away from the creek and unable to use the trees as cover from winter winds and storms, he offers a windbreak in the form of a large bundle of recycled tires.

The Rempes also addressed water quality on the property along Vermillion Creek. In this particular pasture, the cattle used a pond as their primary water source. John said he "wanted to put a waterer in and clean the pond out." John said he can see a difference in the pond water. "It isn't mucky—it is clear," he said. And the cattle seem to see the difference as well. "They drink there before they go to the creek," he said.

The pond project was not without obstacles however. After the completion of the work, John said the pond would not hold water. While the pond was nearly empty, bentonite was applied to the pond basin. John is optimistic about the solution as the pond is now about half full.

John has adopted other management practices as well to reduce cost and improve water quality on the farm. The cattle graze standing sudex, eliminating the inputs from harvest and hauling manure. And John utilizes crop residue such as corn stalks and wheat straw by grinding it along with feed for the cattle.

John said he knows he is affecting water quality downstream by reducing the amount of livestock waste runoff. "The water leaving this place is a better quality than it was," he said. So as the water leaving the Rempe's Nemaha County farms heads in two different directions, it'll be a little cleaner when it meets up again downstream.



**TOP:** John Rempe's fenced pond, which has a cattle waterer below the dam. **MIDDLE:** Bundled recycled tires serve as a windbreak for the cattle. **BOTTOM:** The alternative watering site John installed features an earthmover tire. The cattle use this as their source of water as they are excluded from the creek.

Photos by Connie Pantle