

CWF FARMER PROFILE:

John Bradley

Douglas County Lower Kansas Watershed Wakarusa River

By **Connie Pantle**

Lawrence, KS—On Thursday, October 19, just over 100 people gathered south of Lawrence at the farm of John Bradley. John, who is a veterinarian in Lawrence, began the tour by quoting Chief Seattle, “Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web; he does to himself.” The attendees were divided into two groups to tour John’s varied farm. There were speakers positioned throughout the farm and stops were made accordingly.

John grazes 25 cows on 200 acres of grass a mile and half from the Wakarusa River, which is a tributary to the Kansas River. While the size of the herd is small, Jerry Jost, a field organizer with the Kansas Rural Center (KRC), said it should still be a water quality concern. “Small herds under poor management can negatively impact water quality more than larger herds using best management practices. Every farmer, regardless of size, needs to be thinking about how his or her management can improve their bottom line and their neighbor’s water quality downstream,” Jerry said.

It was because of John’s understanding of water quality that he decided to complete the River Friendly Farm Environmental Assessment through KRC in 2004. The process of identifying the biggest water quality issues was “a bit overwhelming and (the RFFP) helped us identify areas of greatest need.” The problems that John identified while completing the RFFP included: winter feeding site, water quality impacted by cattle wading in pond and streams; year round grazing and annual haying decreased the quality of the grassland.

John said the greatest benefit of the RFFP notebook



At the beginning of the farm tour on October 19, Bill Wood (left), K-State Research and Extension Agent for Douglas County, holds the microphone for John Bradley as he explains the layout of his farm.

Photo by Connie Pantle

was the order in which to complete the projects. “The prioritization it provided was a big help for us.” Therefore John decided to apply for cost-share through KRC’s Clean Water Farms-River Friendly Farm Project to put those projects into place. “We were going to implement the practices anyway, so it seemed like a good choice,” he said.



Will Boyer, KSU Watershed Specialist, explains the benefits of relocating a feeding site. Photo by Connie Pantle

One of the first projects John took on was relocating the winter feeding site and developing a feeding pad. Will Boyer, KSU Watershed Specialist worked with John on develop-

ing the new feeding site. Will explained that they first laid a geotextile fabric down, then covered it with six inches of rock and a layer of lime. The geotextile fabric prevents the rock and lime from sinking into the mud.

Herschel George, KSU Watershed Specialist, said the “most important thing is find the right site”. KDHE has 11 factors that are considered in an environmentally sound site. A good, level site located away from a creek or water source is the best. Therefore, John relocated his feeding site further up the hill away from the creek to reduce runoff of manure into the water.

The feeding site was especially important to John as he has a limited time to feed hay to the cows. Because of his busy schedule as a veterinarian, he has two days during the week in which he can feed hay to his herd. Since he is unable to unroll hay which distributes the manure across a larger area, he has to use ring feeders. Using ring feeders, cows tend to waste a larger percentage of hay. Two different ring-type bale feeders are being compared to see if waste is reduced. One is a traditional bale feeder. The other feeder has a large ring on the bottom and a smaller ring at the top with spaces for the cows’ heads in between.

Will explained how mud is detrimental to animals. It causes loss in production, and provides an environment for disease and pests such as stable flies to flourish. With the addition of the feeding site, manure and wasted hay can easily be scraped, removed, and applied to the pasture.

“Upgrading the lot where they feed their cattle will reduce mud during the winter time. Timely removal of the manure in the spring allows the Bradleys to incorporate the manure into soil fertility and reduce the risk of manure run off into streams.” Jerry said.

John also had a need for water in pastures that did not have a water source. Therefore, he developed a portable solar pumping system on a trailer. The pump and tank can be



Photo by Jerry Jost

Water Quality Concerns:

- Livestock access to creeks and ponds
- Run-off from wintering site
- Grassland Management

Best Management Practices Implemented:

- Installed a frost-free waterer below the pond
- Fenced the pond
- Relocated the winter feeding site uphill and away from the creek
- Installed a feeding pad
- Developed portable solar pumping system
- Stockpiled fescue for winter use



Gary Kilgore, KSU Extension Agronomist, explains the benefits of stockpiling fescue for winter feeding as the Bradleys did in this pasture.
Photo by Connie Pantle

moved from pasture to pasture as the cows are rotated.

Gary Kilgore, KSU Extension Agronomist, illustrated the benefits of stockpiling fescue for winter use as the Bradleys are doing. The method is of lower cost than feeding hay and provides the cattle with sufficient nutrition. Gary explained the ideal way to utilize stockpiled fescue is to flash graze. In flash grazing, the cows are kept on a section of the fescue for just a few days. Then, he said most farmers “leap frog” electrical fence and turn the cows into the next section of pasture to graze, continuing until the fescue has been utilized. A narrow walkway on

one end allows the cattle access to the water source, in this case the frost-free waterer below the pond. “Stockpiling fescue allows the Bradleys to keep their livestock out longer on pastures in the winter. This means their cattle will be spreading more of their own manure across the pastures. Strip grazing the pastures will help distribute the manure as well,” Jerry said.

These changes are important because they reduce hay feeding which improves profitability and lessens the risk of manure run off from seasonal feeding areas explained Jerry.

Another part of the cost-share was used to install the frost-free waterer

below the Bradley’s pond. To supply water for the cattle, a 50 gallon gravity-fed concrete tank was installed below the pond. The waterer is surrounded by the same geotextile fabric and rock as the feeding pad. Following installation of the waterer, the pond was fenced to prevent cattle from wading in the pond and eliminate contamination from ma-



Matt Miller, NRCS Range Management Specialist, discusses water quality issues. Photo by Connie Pantle

nure. John also received cost-share through Environmental Quality Incentive Program (EQIP) through Douglas County Natural Resource and Conservation Service (NRCS) which Clyde Mermis, Douglas County District Conservationist, explained at the beginning of the tour. Matt Miller, NRCS Range Management Specialist, spoke of the water quality issues and the improvements the Bradleys will see from completing the project.

One major obstacle that the Bradley’s encountered was a ledge of rock when digging the line from the pond to the waterer. It took a man three days using a jackhammer to break through the rock. “That happens,” John said. “We didn’t know we’d run into something like that.”

Another obstacle was finding the vendors for sup-

plies such as the solar panels, geotextile fabric, and waterers. John said they went all over the region searching for the supplies for the projects. Therefore, John invited the vendors to the tour so that farmers could find the supplies they may need to make improvements on their own farms.

The speakers throughout the tour helped illustrate why John is making changes on his farm. Ryan Neises, Watershed Forester, explained the benefits of forested riparian buffers along side streams and creeks. Ryan recommends fencing the riparian areas to “keep cattle out so they don’t destroy the understory and compact the soil.” While Ryan focuses on forest buffers, he said “grass buffers provide the same benefits.” He also explained the process of using willow tree cuttings, which will root themselves, to stabilize streambanks.



Ryan Neises, Watershed Forester, explains the benefits of a forested riparian area.

Photo by Connie Pantle

The Bradleys have a pasture with a significant timber just north of the winter feeding area. A year ago, 70-75 trees were harvested out of this timber. Connie Robinson, District Forester, illustrates the many ways to improve a timber stand on a farm.



Connie Robinson, District Forester, illustrates the many ways to improve a timber stand on a farm.

Photo by Connie Pantle

Connie Robinson, District Forester, described the ways to improve a timber stand, such as pruning young trees early and crown tree release. Connie said a crown tree release, where competing trees are cut down, improves the conditions and opens up the area for the best tree to flourish.



Walt Fick, KSU Range Management Specialist, explains the methods to return a pasture to native grass. Photo by Connie Pantle

And north of the timber, John has a pasture that is currently fescue. John plans to return the pasture to native grass. Walt Fick, KSU Range Management Specialist, explained the best way to do this is to kill the fescue and then sow native grass seed. Walt also noted that you should check on your seed source to ensure that the seed is strictly a native grass mixture and weed-free. Walt also noted methods of brush control, which is another goal John has for his farm. Walt said the methods include: fire, mechanical control, chemical control and grazing management (such as using goats).



Mike McFadden, Wildlife Biologist, discusses ways to improve wildlife habitat in Northeast Kansas. Photo by Connie Pantle

Because improving wildlife habitat is a goal of John's, Mike McFadden, Kansas Department of Wildlife and Parks (KDWP) Wildlife Biologist, spoke of ways to improve wildlife habitat. He said that our region was once Tallgrass prairie and was very varied. He said that needs to be considered when improving wild life habitat on farms and ranches.

Jerry said that John was willing to share the changes he's made on his farm so that others can learn from it. "John is always looking for ways to improve his management so that he can more easily reach his goals for his farm. He is a very good partner with many different organizations and is very willing to share what he has done with other farmers," Jerry said.



John Bradley fenced his pond after installing a frost-free waterer below the pond. Fencing the pond addresses one of the Bradley's water quality concerns on the RFFP. Photo by Connie Pantle

The tour was organized by Bill Wood, K-State Research and Extension Agent for Douglas County. Tour sponsors included KRC, Douglas County Conservation District, Natural Resources and Conservation Service, Douglas County Livestock Association, Douglas County Farm Bureau, Kansas Forest Service, Kansas Graziers Association and K-State Research and Extension-Douglas County.