Beef Producer BP8 May 2010

Good management of forages extends to lakes and streams

By ROBERT FEARS

T is seldom suggested you do nothing in land conservation ... except maybe in riparian restoration.

The word "riparian" specifically means "of the river," but riparian zones are floodplains or margins of channels, creeks, rivers and lakes. Riparian areas are transition zones between upland areas and bodies of water. They are all interconnected.

Riparian areas are important because they help maintain health of watersheds. Healthy watersheds, in turn,

reduce runoff and improve water quality and quantity in the streams, rivers and oceans they feed. Good management of riparian zones is important for groundwater quality as well as surface water because creeks and rivers often channel water into aquifers.

"Trees and shrubs mixed with grasses and sedges are needed on most riparian zones to dissipate energy and keep creek and riverbanks from washing away in flash floods," says Steve Nelle, USDA Natural Resources Conservation Service. "This vegetation slows water movement across riparian areas and causes a greater amount of sediment and nutrients to be deposited prior to reaching the creek or riverbed.

"The bigger trees growing along streams can shade the water and provide good fish and wildlife habitat," Nelle says. "Their massive, far-reaching root systems reinforce the banks against flood damage and help provide stability. Depending upon the area, riparian trees can include pecan, elm, cypress, sycamore, cottonwood, willow or oak."

Invasive, exotic plants like giant cane, salt cedar or Chinese tallow sometimes dominate riparian areas, Nelle adds. "These plants may form near-monocultures and crowd out native plants. In these cases, selective control measures are warranted."

But often in the daily lives of livestock managers, grazing is the most important factor affecting riparian vegeta-

Hay and Forage tion, Nelle says. Heavy an grazing damage tation and rendu at retaining sed

Heavy and prolonged grazing damages riparian vegetation and renders it ineffective at retaining sediment.

"Management in riparian settings should strive to provide short livestock grazing

periods followed by long rest periods to maintain or enhance desired plant communities," Nelle explains. "In fact, only two to four weeks of grazing each year with a large number of animals may be appropriate to maintain good riparian vegetation."

This type of "flash grazing" can take advantage of the large volume of highquality forage, yet develops and maintains good riparian vegetation, he says.

"Separate riparian pastures combined with an observant and diligent manager will permit this kind of special-





SAD STATE: This riparian area is losing soil and nutrients and won't achieve as much as it could for wildlife, for downstream water resources, or for recharging groundwater supplies.



MUCH BETTER: This little stream has well-grassed banks, and the soil is stable. Plus, the water is running ample and clear.

ized grazing," Nelle adds.

Fencing livestock out of lakes, creeks and rivers reduces water contamination from soil, manure and urine. Total or partial exclusion of livestock also helps maintain dense vegetation to catch and stabilize sediments.

Where animals have access to water, grazing managers can gravel areas where banks are less likely to erode. When these access points are permanent, these watering areas should be fenced to prohibit livestock from moving farther into the stream. USDA offers financial incentive programs to assist landowners in constructing such fences.

In addition to allowing overgrazing, humans sometimes degrade riparian zones by heavily manicuring and mowing, grading, or paving the banks of streams and rivers. Constant use of ATVs and other equipment in riparian areas and deposition of trash and other foreign material into rivers and streams are also detrimental to these systems.

In most cases, NRCS and other land management agencies recommend reparation of dysfunctional riparian zones by stopping or altering damaging practices and then letting nature take its course. Nelle says some heavily disturbed riparian plant communities, especially where the water table has been lowered or flows interrupted, may not recover in our lifetime. But most are extremely resilient and can recover as long as they have time, rest and adequate water.

Fears owns RJ Consultant Services and writes from Georgetown, Texas.

Is your water zone defective?

CHARACTERISTICS of a dysfunctional riparian zone include exposed soil or gravel on banks and in the floodplain, a wide channel with shallow water, increased flood flows, and excessive erosion. These often result in stream-bank collapse.

Other signs of a degraded riparian system are lack of shade or overhanging vegetation and absence of large wood or downed trees in the streambed. This results in the loss of fish and wildlife habitat, and sometimes, in dominance by non-native invasive plants and/or upland species.

