

## Riparian ( and Weeds and Woodland) Grazing

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There is a great deal of evidence that allowing livestock uncontrolled access to riparian areas can damage the ecological integrity and sustainability of those ecosystems. In the efforts to recover and rehabilitate riparian zones we have seen:

- Nearly 3 decades of government programs - volunteer programs for those choosing to enroll in return for a share of the cost of implementing a practice, or building a structure.
- Over 100 million spent by the Government to implement, and mostly this went into improving or building animal confinement facilities and manure management facilities – a lesser amount to better cultivation practices, and streambank rehabilitation and protection.
- More recently efforts have focused on the establishment of buffer zones/filter strips along stream banks and wet areas, and grazing is not allowed.
- This effort has brought a rapid increase in the population of invasive weeds and woody plants – Japanese knotweed, honeysuckle, multiflora rose, bedstraw, reed canary grass, etc.
- Only minor improvements to stream ecosystems have resulted from this effort.

Research is providing evidence that if livestock are managed properly, grazing these areas can be beneficial – simultaneously improving farm productivity, while decreasing input expenses and protecting the environment. Management is the key.

- In 1996 and 1997 a study of 23 trout stream reaches in southwest Wisconsin under four different management programs: 1) continuous

grazing, 2) intensive rotational grazing, 3) grassy buffers, 4) woody buffers found conditions healthiest, and most productive under the intensive grazing scenario. Characteristics measured: bank erosion, trout abundance, fish habitat characteristics, fish based index of biotic integrity (IBI).

- Woody riparian zones have been shown to have higher erosion rates than grassy riparian zones. They also had greater amounts of the fine substrates coating the stream bottoms than did the grazed areas.
- A study in 1998-1999 in southeastern Minnesota, demonstrated grassy buffers along streams are better able to catch and filter eroded sediments better than the woody buffers, and that when these grassy buffers were rotationally grazed the water quality was consistent with ungrazed grassy riparian zones. The issue is they will not remain grassy without the rotational grazing.
- Numerous studies in the west have provided ample evidence of recovered riparian areas through good grazing management – in a much more brittle environment than here in the northeast.
- Of all land uses studied, permanent pasture made the lowest contribution to overland runoff, followed by hayland, small grains and lastly corn production.
- The key is proper management : flexibility to work with the situation is imperative, and good technical service provided to teach farmers good practices: 1) observation of the existing ecosystem both in the directly upland area and the riparian area 2) knowing the plants and livestock habits 3) installing good fences 4) installing a watering system to direct animals away from stream edges, 5) adapting the grazing to the situation – protecting the area if too wet, timing the grazing to maximum benefit of the area for keeping it healthy while providing forage for the livestock.

#### Benefits:

- for farms pushed more and more to the more affordable marginal edges of land for farming this will add to the farm inventory of grazing land.

- Instead of a toll on the farm to maintain and “beat back the invasive weeds and brush”, this area becomes a productive part of the farm.
- Invasive species along streambanks and wet areas are kept in check.
- Water quality is maintained, or improved along stream banks or wet areas with proper management of livestock grazing.