



Title: Cattle Production Practices in Grazed Watersheds of the Humid Region

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Organization: University of Kentucky

State: KY **Region:** Southern

Year of Funding: 2001

Theme: Watershed Management

Situation: Kentucky has over 2.26 million beef cattle and calves in state making it the largest beef producer east of the Mississippi River. Furthermore, Kentucky is second only to Alaska in total stream miles highlighting the potentially significant impact these grazing animals can have on the environment. Livestock producers and other stakeholders require management systems to minimize the impacts of grazing cattle on the environment while maintaining or improving production levels.

Objectives: Determine the particular factors that influence cattle behavior in terms of movement, pasture utilization, grazing decisions, and use of riparian areas/stream systems under natural/control conditions in the humid region of the U.S.; determine the influence of alternative management strategies (i.e. off-stream water, fencing, shade) on cattle behavior; and educate livestock producers and other stakeholders on management systems that minimize adverse impacts of grazing on the environment and natural resources while maintaining or improving their production efficiency.

Methods: The first year of the project was devoted to development and baseline data collection which included the recruitment and hiring of key graduate student and research associate personnel, layout and development of pastures, construction of operator surveys, and development of the project web site. During the second year, we are focusing on key management decisions that can be made to alter cattle movement in riparian systems. Additional products produced include newsletters, tours, sessions in the Kentucky Master Cattleman Program, and conference papers and presentations.

Partnerships: Providing educational support created a partnership with the Master Cattleman's Program. This program is conducted with funds from the Kentucky Agricultural Development Board, a division of the Governor's Office of Agricultural Policy. Findings from this project may impact related policy.

Research: Diverse audiences have a need for accurate information on the issue of grazing systems and environmental protection. Information acquired by this project will be utilized for management decisions that will reduce the environmental impact of grazing systems while maintaining economic viability. Dissemination of the research findings has occurred through the project website, newsletters, conference presentations, tours, and sessions in the Kentucky Master Cattleman's Program. Findings will also be submitted to peer-reviewed journals.

Resources: Additional funds were obtained from state water quality grants (SB271), a southern region sustainable agriculture research and education grant (SARE), Kentucky Cattleman's Program, and the Agricultural Experiment Station (UK Animal Research Center) to support the project or personnel.

Results: Outputs include environmental stewardship and industry issues sessions conducted in the Master Cattleman's Program (365 beef producers in 69 counties for 2002); development of newsletters, a website, and conference papers and presentations; tours of administrative officials from the University of Kentucky and the USDA. Peer-reviewed publications are planned. A wide variety of stakeholders were and continues to be reached. Short-term outcomes were assessed by surveys with future plans to conduct follow-ups to measure practice changes.



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