

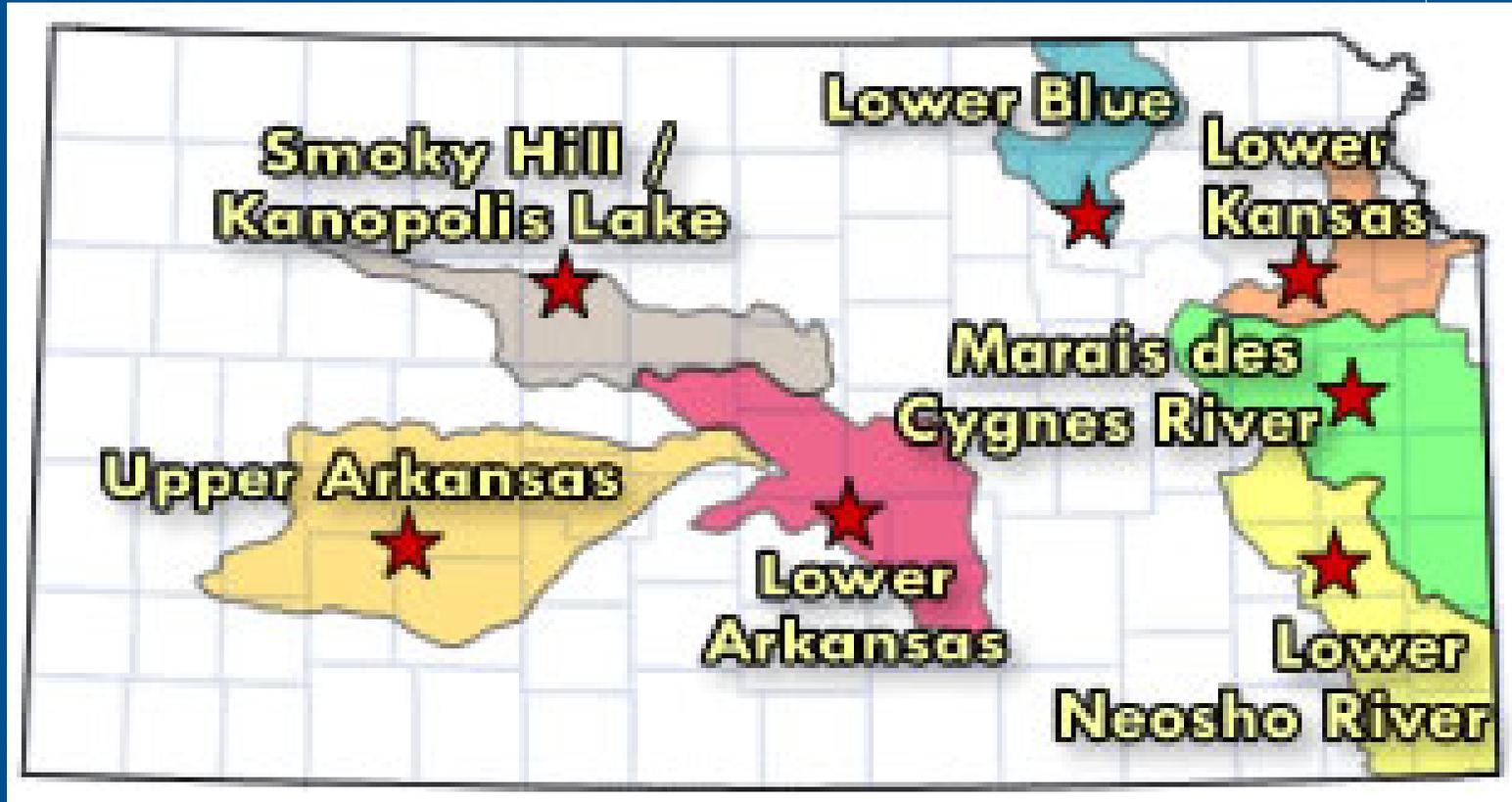
Grazing Land BMP's



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Extension Watershed Specialists



Statewide Education

KSTATE Kansas State University Research and Extension

Kansas Livestock Environmental Stewardship Home About Us Contact Us

Current News Upcoming Events Online Assessments Sign-Up Deadlines Search

Welcome to the Kansas Livestock Environmental Stewardship Web Site!

The goal of this website is to provide our users with online access to current technologies and regulations dealing with livestock waste management. Centralizing this information will help educators, livestock producers, and researchers find the information they need quickly.

We offer [online assessment tools](#) to evaluate the management of your operation, links to the latest [regulations](#) involving livestock waste, a [search engine](#) to help find information fast, along with many other features.

TAKE AN ASSESSMENT:

- Select one...
- Select one...
- Cow-Calf or Stocker Operations
- Dairy Operations
- Feeder Operation
- Sheep or Goat Facilities
- Horse Facilities
- Youth Livestock Projects
- Small Farms
- Feedlot Operation

Upcoming Events

- * 8/17/2004 - Beginning Rangeland Management School
- * 8/25/2004 - Advanced Range Management School
- * 12/2/2004 - Kansas Livestock Association Annual Meeting

Current News

- * U.S. Food Supply Not Threatened by Suspected BSE Case, Officials Say
- * Cattle Feeding Reaps Surprising Profits--Returns Look Positive Into Early Fall
- * Beef Cattle Reproduction Symposium Scheduled for Sept. 1-2 in Nebraska

Organizations

- KDHE
- KS Dept of Ag
- K-State Research & Extension
- National Ag Compliance Center
- NRCS - KS
- State Conservation Commission

Funding for development of this site provided by Kansas State University Agricultural Experiment Station on 319 Nonpoint Source Pollution Control Grant No. C90097405-98 administered by Kansas State University Agricultural Experiment Station and Environment - Bureau of Water. Cooperative Extension Service that all persons shall have opportunity and access to its educational programs, services, activities, and materials without regard to race, color, religion, national origin, sex, age, or disability. Kansas State University is an equal opportunity organization.

www.oznet.ksu.edu/kles

Environment

State Agencies

- 1 Has the height and density of desirable grasses in your pasture been maintained or improved during the past year? Yes
- 2 Do you remove the manure, waste feed and hay from feeding sites within two weeks after moving feeding sites or at least six times annually? No
- 3 Do all cattle at your facility obtain drinking water from a water bowl, water tank or automatic waterer? No
- 4 Are supplemental feeding areas located at least 100 feet from creeks, streams, rivers, lakes, ponds or natural waterways and water wells? No
- 5 Are supplemental feeding sites moved at least weekly to a new location? No
- 6 Is the primary protection from wind or snowstorms by windbreaks or naturally timber areas at least 100 feet from creeks, streams, rivers, lakes, ponds or natural waterways and water wells? No
- 7 Are the grazing areas along creeks, streams, rivers, lakes, ponds or natural waterways and water wells managed to prevent trampling and overgrazing by cattle? No
- 8 Are the cattle prevented from wading in streams, creeks or ponds? No
- 9 Are mortalities disposed using a legal and approved method (composting, burial, incineration, contract pick-up services)? Yes
- 10 Is a grazing management plan being followed? Yes



- Regulations
- Publications
- Composting
- Nutrient Planning
- Engineer Links
- Lab Testing Services
- University Links
- Federal Agencies
- Universities
- Health and Environment
- State Agencies

Online Assessments Results

Select an Assessment:



Environmental Stewardship Assessment

Cow-Calf or Stocker Operations
8/16/2004

Thank you for taking the Environmental Stewardship Assessment for Cow-Calf or Stocker Operations. We hope you will find the detailed summary below helpful in planning and managing your Cow-Calf or Stocker operation. The questions you answered "yes" indicate the areas where you are practicing excellent environmental stewardship. Your commitment to continue to maintain these practices will help assure a clean Kansas environment. The questions that you answered "No" are areas of vulnerability and are candidates for making improvements. Making improvements in these areas may improve the productivity and profitability of your operation as well as reduce environmental threats of your operation. If you would like to discuss this report or sources of assistance to improve environmental stewardship, please feel free to contact any of the organizations listed at the end of the report.

[Print Results](#)

Has the height and density of desirable grasses in your pasture been maintained or improved during the past year?

You answered yes

Good job! The summary below explains the benefits of this practice.

A dense and vigorous grass stand is the most effective form of vegetative filter to remove nutrients and bacterial from runoff water. The goal is to provide feed for the livestock, sustain the stand, prevent erosion and serve as a filter for the nutrients.

It is desirable for livestock to graze for as much of their food supply as possible.

- Thin, overgrazed or heavily trampled grass plants have a smaller and weaker root system and allow more and faster runoff resulting in accelerated erosion.
- Sustainable grass management balances the desire that livestock



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One-on-One Education



11 Pollution Potential Factors

6 factors which producers cannot manage

1. Distance from pen to protected water body (>mile = 1, < 100 ft = 9)
2. Soils type between pen and water body (Sand = 1, Clay = 9)
3. Slope in pen (<1% = 1, >5% = 10)
4. Slope from pen to protected water body (<1% = 1, >5% = 10)
5. Annual rainfall (<20 in = 1, >40 in = 9)
6. Rainfall intensity(25-year 24-hour storm) (<4.5 in= 1, >6.5 in=10)

Total Score of 60 or less is desired



11 Pollution Potential Factors

5 factors which producers can manage

7. Capacity (<50 au =1, 700-999 au =9)
8. Buffer type (grass =1, bare earth =10)
9. Buffer size ($>2x$ pen area =1, $<1/2$ pen =10)
10. Extraneous drainage ($<1x$ pen =1, $>5x$ pen =9)
11. Utilization period (<90 days =1, >7 months =9)

Total Score of 60 or less is desired



Extending the Grazing Season

- Reduce the amount of harvested feed
- Reduces the accumulation of manure in feeding area
- Takes advantage of unused forage
- Promotes livestock health



Extended Grazing

Alternative Forages

Grazing Winter Annuals

Winter Grazing Native

Winter Grazing Fescue



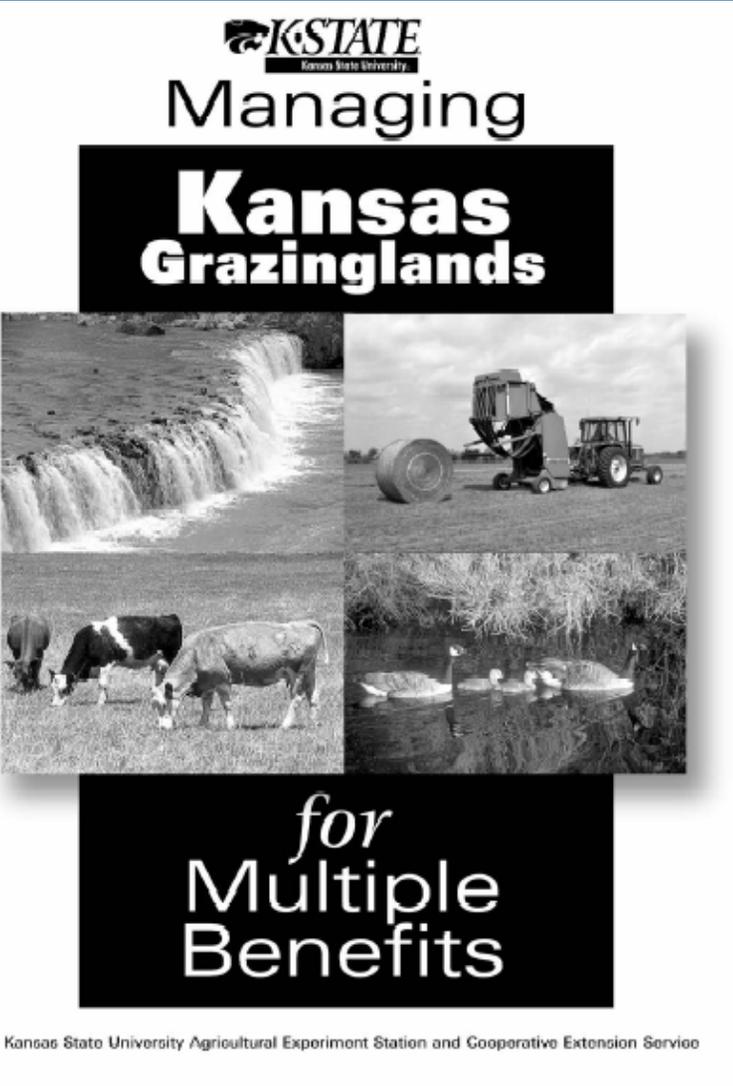
Are Grazing land BMPs needed ?

- What are the livestock distribution patterns?
- Are they a concern?
- What are the factors influencing the current patterns?
- What factors can be managed to make desired changes?



Grazing Land BMPs

- High Input Practices
 - Water Development
 - Cross Fencing
 - Economic analysis
- Low Input Management Practices



KSTATE
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Managing
**Kansas
Grazinglands**

for
**Multiple
Benefits**

Kansas State University Agricultural Experiment Station and Cooperative Extension Service



Alternate Water Supplies

- Reduce the livestock direct contact with the stream
- Reduce the amount of time livestock are in the Riparian area



Alternate water supplies









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The Impact of adding a Water Trough to a pasture with a stream



- **Stream usage –**
 - 4.7 min to 0.9 min **80%** REDUCTION

- **Riparian area –**
 - 8.3 min to 3.9 min **56%** REDUCTION

- **Bank erosion**
 - 0.66” to 0.15” **77%** REDUCTION

Studies in VA, NC, OR

The Impact of adding a Water Trough

to a pasture with a stream



- Drinking from stream-- 81% decrease
- Loafing at stream-- 59% decrease
- Sedimentation -- 77% decrease
- Suspended solids -- 96% decrease
- Nitrogen -- 56% decrease
- Phosphorus -- 98% decrease

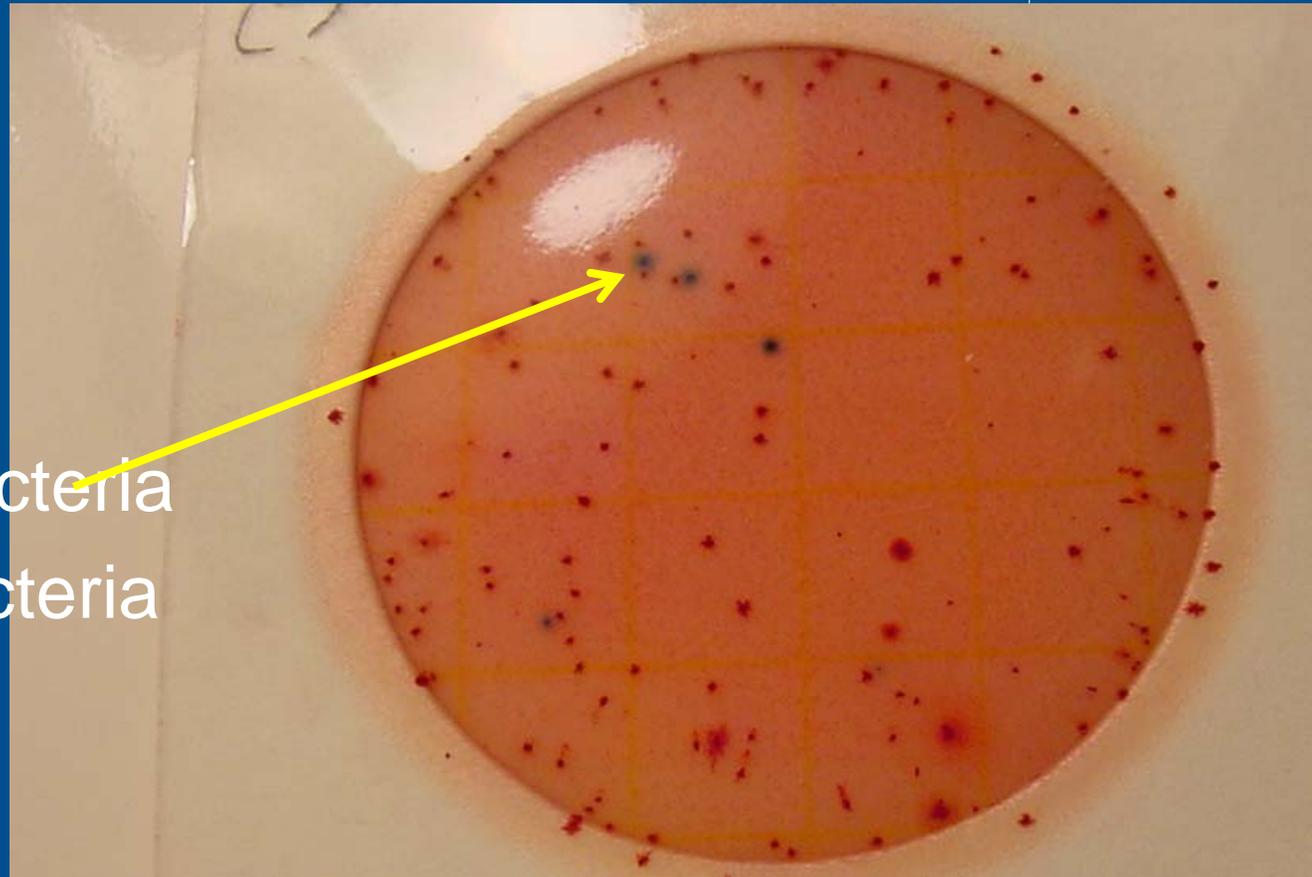
Studies in VA, NC, OR

How do I convince you to change?

Two ponds

One fenced, One not fenced

Then test for bacteria
Blue = Ecoli Bacteria

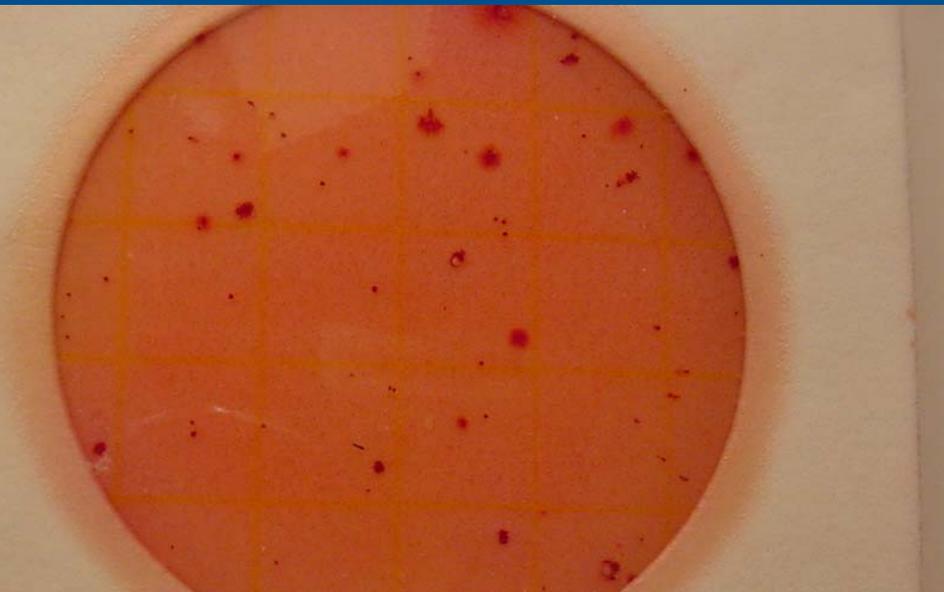




Fenced Pond



Unfenced Pond



Cross fencing

- Separate grass types
- Separate various range sites or topography
- Protect riparian areas











Same Sign



Location of Mineral and Rubs



Abandoned Facilities



Spillway Trailing and Erosion



Shade



Tree in Drainage Below Pond



Conclusions

- Grazing land BMP's:
 - Are Voluntary
 - Need to be Practical and Economical
 - Are Usually Beneficial to Livestock and Water Quality





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