Grazing Land BMP’s

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- Smoky Hill / Kanopolis Lake
- Lower Blue Kansas
- Lower Arkansas
- Marais des Cygnes River
- Lower Neosho River
<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>1</td>
<td>Has the height and density of desirable grasses in your pasture been maintained or improved during the past year?</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>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?</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Do all cattle at your facility obtain drinking water from a water bowl, water tank or automatic waterer?</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>Are supplemental feeding areas located at least 100 feet from creeks, streams, rivers, lakes, ponds or natural waterways and water wells?</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>Are supplemental feeding sites moved at least weekly to a new location?</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>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?</td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>Are the grazing areas along creeks, streams, rivers, lakes, ponds or natural waterways and water wells managed to prevent trampling and overgrazing by cattle?</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>Are the cattle prevented from wading in streams, creeks or ponds?</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>Are mortalities disposed using a legal and approved method (composting, burial, incineration, contract pick-up services)?</td>
<td>Yes</td>
</tr>
<tr>
<td>10</td>
<td>Is a grazing management plan being followed?</td>
<td>Yes</td>
</tr>
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</table>
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.

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 bacteria 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
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

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Score</th>
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<tbody>
<tr>
<td>7</td>
<td>Capacity (&lt;50 au =1, 700-999 au =9)</td>
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<tr>
<td>8</td>
<td>Buffer type (grass =1, bare earth =10)</td>
<td></td>
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<tr>
<td>9</td>
<td>Buffer size (&gt;2x pen area =1, &lt;1/2 pen =10)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Extraneous drainage (&lt;1x pen =1, &gt;5x pen =9)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Utilization period (&lt;90 days =1, &gt;7 months =9)</td>
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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
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
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
Cross fencing

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