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RANGELAND RISK MANAGEMENT FOR TEXANS:
COMMON GRAZING MANAGEMENT MISTAKES

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Grazing management involves a number of decisions, including the kinds and numbers of animals to be stocked, and the distribution and timing of grazing. Annual stocking rate decisions are made before the year's forage production can be known. These decisions affect the quality and quantity of the forage you produce and the performance of your livestock. Over time, cumulative grazing management decisions affect the productivity and health of the rangeland and your financial solvency.

Mistakes will occur, because the rangeland ecosystem is complex and livestock markets vary from year to year. However, rangeland owners and managers can learn from their mistakes and make better decisions in the future. The most successful managers plan conservatively so that they can handle unforseen situations, recognize the warning signs of unacceptable risks, and correct their management strategies before the rangeland resource is harmed.

"Ranchers have often equated livestock numbers with their wealth and income level" (Holechek, 1998). Yet research shows that net economic returns are higher with moderate grazing. You cannot afford to jeopardize long-term productivity for short-term economic gains. The ranching operation will not be sustainable if it harms the natural range ecosystem. Often, too much importance is placed on immediate gross returns from livestock and/or wildlife, and not enough on maintaining rangeland health.

CHECKLIST OF MISTAKES

1. **Failure to change from the historical stocking rate.**

   Stocking rates should never be based on what was done in the past. Instead, stocking rates should be determined by the forage that can be produced in years of median rainfall. Keep and analyze rainfall records, and be conservative when setting your stocking rate. Stocking rates must be flexible from year to year, because weather patterns are uncertain. Using the same stocking rate year after year often results in rangeland degradation.

2. **Failure to leave a forage reserve.**

   Keep records of annual rainfall and base your stocking rate on forage production in years of median rainfall. Be conservative. If rainfall is then above median and you have more forage than you need, it will be a resource you can carry over to the next year or use for short-term stocker operations to capitalize on it. Ungrazed or lightly grazed plants are more vigorous and they improve the health of the watershed. The rule of thumb for proper annual forage use is to "take half, leave half."

3. **Failure to understand that "take half, leave half" does not mean that animals can consume half of the annual forage available.**

   Using this rule of thumb, you designate 50 percent of your forage for grazing. However, half of this amount, or 25 percent, will not actually be available to livestock. Instead, it will be destroyed by insects, senescence and the trampling of grazing animals. So your stocking rate should be based on 25 percent of your annual forage production. Otherwise, you run the risk of overgrazing the land so that forage can not recover sufficiently for the following year.

4. **Failure to adjust stocking rates to the actual grazable area.**

   Normally, not all of a ranch or pasture is accessible to grazing animals or provides forage. Examples are very steep or rocky areas. If these areas are used to calculate the stocking rate, the rate will be too high and the useable rangeland will be overstocked. Managers should base stocking rate on grazable acres.

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5. **Failure to base stocking rates on the preferred forages of the livestock.**

   Different livestock prefer and consume different types of forages. A separate stocking rate should be calculated for each type of livestock, and it should be based on the availability of the forages each type prefers (e.g., one cow animal unit does not equal seven goats). Failure to do so results in the overgrazing of preferred species and the underuse of less preferred species. This can reduce animal performance.

6. **Failure to defer pastures.**

   Deferment is a grazing management practice that leaves an area ungrazed so that the forage can recover before it is grazed again. Forage in deferred pastures regains its vigor and reproduces, which helps improve rangeland health. Do not graze livestock in the same areas all year long. Use a planned grazing system in which each pasture is left ungrazed for some period during the year. Then all forage plants will have the chance to regain productivity.

7. **Thinking that the more livestock grazed, the higher the profit.**

   If you are understocked you may be able to add animals, but once the stocking rate becomes too high having more livestock does not increase your profit. Instead, the forage resource is depleted, animal performance and animal health decline, toxic plant problems increase, rainfall becomes less effective, the soil begins to erode, more undesirable plants invade the land, and you may have to purchase expensive replacement feed. All these factors reduce your profit. You can not starve a profit from your livestock or rangeland.

8. **Thinking that mixed livestock can not be grazed together.**

   Different types of livestock prefer different types of forages. Mixed livestock herds can compliment one another and more effectively use most rangelands. In most cases different kinds of livestock can be grazed together, thus increasing the overall stocking rate.

9. **Failure to reduce stock during drought conditions.**

   Drought is a fact of life for every rancher. In much of the western United States drought can be expected in three years out of ten. Ranchers have no choice but to learn to live with drought. The best drought management strategy is to reduce livestock numbers as the amount of available forage decreases. Refusal to do so results in severe damage to rangeland, poor animal performance, and increased production costs. Ultimately the sustainability of the ranch is at risk.

10. **Failure to prevent animals from grazing toxic plants.**

    Ranchers should know what toxic plant species grow on their lands, and understand when they pose the greatest threat. For example, livestock are more susceptible to plant poisoning during the spring. Several poisonous plants are the first ones to “green-up” at a time when livestock are less selective and tend to graze everything in sight. Never place hungry livestock in a pasture with poisonous plants. There is danger at other times of the year also. Extreme environmental conditions such as drought or freezing temperatures may have less effect on toxic plants than on desirable forages, making livestock more apt to eat them. Manage toxic plants to reduce the risk of livestock poisoning.

PROPER GRAZING MANAGEMENT

A good system of grazing is one that manipulates animals to achieve the maximum amount of sustainable animal and forage production at a low cost. Grazing management requires the manager to plan ahead, on the basis of projected forage resources, but be willing to make adjustments if that projection changes. No grazing system can compensate for overstocking, so you must re-evaluate your forage resources during the year and adjust the stocking rate to meet livestock needs and maintain the range resource.

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FOR FURTHER INFORMATION:

Grazing Systems for Profitable Ranching, Texas A&M AgriLife Extension. Available at *http://agrilifelearn.tamu.edu*

Holechek, J. L., R. D. Pieper and C. H. Herbel. 1998. Range Management: Principles and Practices. 3rd ed. Upper Saddle River, New Jersey: Prentice Hall.

Do You Have Enough Forage? Texas A&M AgriLife Extension. Available at *http://agrilifelearn.tamu.edu*

Stocking Rate Decisions, Texas A&M AgriLife Extension. Available at *http://agrilifelearn.tamu.edu*

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