

Alexander Ranch Drought Plan

National Drought Mitigation Center Sample Drought Plan for South Central Kansas

<http://drought.unl.edu/ranchplan/WriteaPlan/SampleDroughtPlans/SouthCentralKansasAlexanderRanch.aspx>

Goals/Strategic Objectives

The declaration of purpose for the Alexander Ranch is to manage all integrated resources in order to maximize the production of protein, shape a harmonious existence with nature and maintain economic viability.

The strategic plan and goals for the Alexander Ranch include:

1. Regenerating the range while utilizing the optimum percent of forage grown.
2. Improve the quality and quantity of the water cycle, mineral cycle, and energy flow.
3. Maximize the forage utilization and flexibility.
4. “Ancora Imparo”(I am still learning) Continue the management education process.



Ted Alexander and son Brian

Operation

Seasonal custom grazing with cows and calves, no haying, no tractor

Inventory

- Annual Rainfall - 18-22 inches per year
- Native mixed-grass prairie

Critical Dates

- April 1
- June 15
- August 15
- November 1

Monitoring Plan

- precipitation - uses Davis Vantage Pro 2 which downloads data onto home computer
- forage growth - in early years used clip and dry method, now uses grazing stick and Forage Production Estimator from LandEKG
- has calculated pounds of forage produced per inch of precipitation for his ranch

Before Drought

Pasture Improvement

- Reduce cedar tree and sagebrush population through fire, mechanical tree saw, and grazing - populations now at 10-15%
- Prescribed burning every ten years
- Planted 120 acres of farm ground to native grass

Water and Infrastructure Development

- cross fences - to control grazing, create rest periods for the grass (recovery time after grazing), and more uniform use of the increased forage production
- water pipelines, stock water tanks, embankment ponds, pit ponds, spring development, three wind pumps - to supply and store water for the increased stocking rate of yearlings
- cost share through NRCS

Enterprise Flexibility

- custom grazing on a per head per day contract

Managed Grazing System

- managed intensive grazing
- three grazing cells

The FIVE grazing principles that have been introduced and applied are:

- Graze for the animal
- Rest for the grass
- Proper stocking rate for the season or the year
- High stock density
- Herd impact

The better the management of the Alexander Ranch understands the grazing management principles, coupled with experience, the more knowledge will be able to be applied.

The culmination of MIG principle implementation has contributed to an increase in stocking rate of over 100% from the 1984 level, maintained individual animal performance, and increased the pounds of beef produced per acre while maintaining the management goals to improve water quality and quantity, soil health and native rangelands.

The net return to management has more than doubled over the last several years and the gross margin has increased per acre 150%. The ranch has become more profitable and economically viable over the last ten years.

During Drought

- Drought proofs the ranch as thoroughly as possible before it quits raining.
- Use the drought as a positive energy input into the ranch ecology.
- Be prepared for the next rain by leaving enough residues on the soil to facilitate infiltration and minimize runoff.
- Implement the drought management strategy quickly.
- Don't wait on or hope for rain.
- Don't second guess your decisions and planning.
- Stay flexible.
- Stop worrying, follow the plan, do what you can, the ranch is prepared, the plants are strong, adapted to drought, and will survive. **IT WILL RAIN**
- Work on more **WOTB** than WITB.
- If you have done all you can and there is nothing more to do, GO ON VACATION!!

April 1

- End of the winter dormant season and the beginning of the growing season for warm season grasses
- Less than 4" of moisture during the winter dormant season (killing frost or Nov 1 till April 1)
 - No prescribed burns should be conducted.
 - Plan to increase the length of rest periods earlier than usual.

June 15

- About half of the forage is produced by June 15
- 75%(15.75") of the annual average rainfall is received between Nov 1 & June 15
- If the rainfall is 80% (12.60") of the 75% (15.75") then the stocking rate should be decreased 30% by weight. (Finish culling herd C)
- If the rainfall is 60%(6.30") of the 75%(15.75") then the stocking rate should be decreased 40-50% by weight (Cull herd B deep)
- The 3 weeks following June 15th is very critical. By July 15 the destocking should be completed.
- Rest periods should be as long as possible by June 1 if any indicator of a drought is present.
- Graze periods should be as long as possible to allow the other paddocks to rest for as long as possible.

August 15

- About 90% of the annual forage has been produced. Warm season grasses are preparing for next year growing season. Rest between now & frost will benefit next year's grass production.
- Length of grazing season-Based on the rainfall in July & August
 - If rainfall is <70% (1.50") of the average 5" during July & August end herd C grazing by Sept 1(Cull Deep)

November 1

- End of the growing season and the beginning of the winter drought(drought season)
- Less than 80%(16.80") of the 21" average annual precipitation would indicate the beginning of a drought for the next growing season unless the winter is exceptionally wet