



Managing Drought Risk on the Ranch

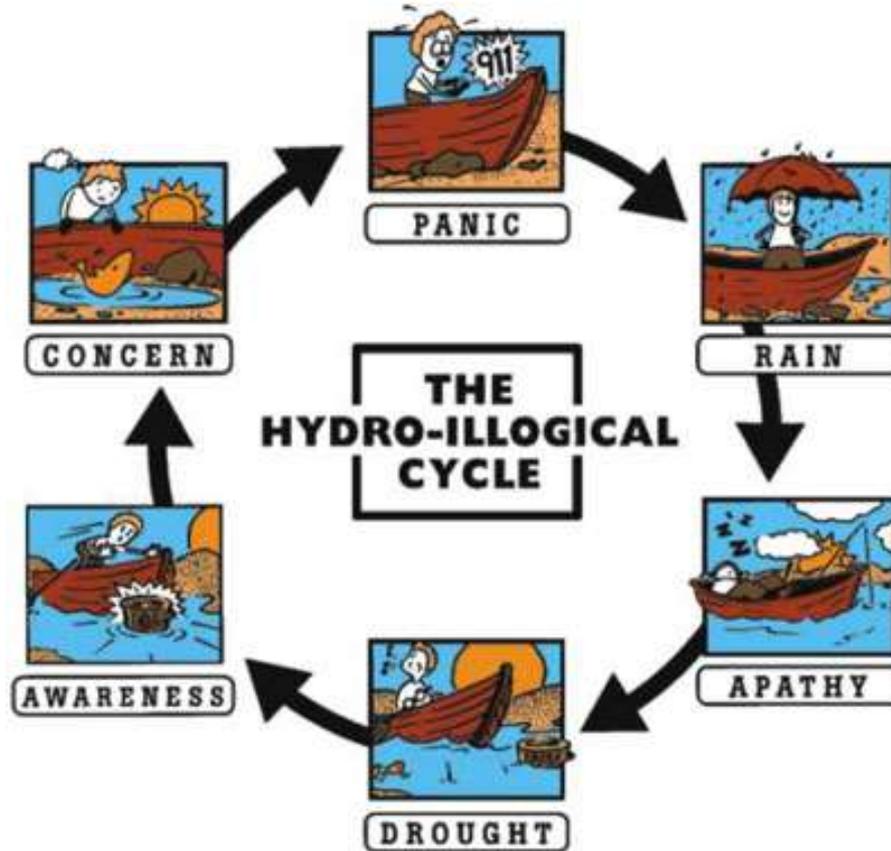
Tonya Haigh
National Drought Mitigation Center
University of Nebraska-Lincoln



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Why Plan?



Ranchers benefit from having a drought plan



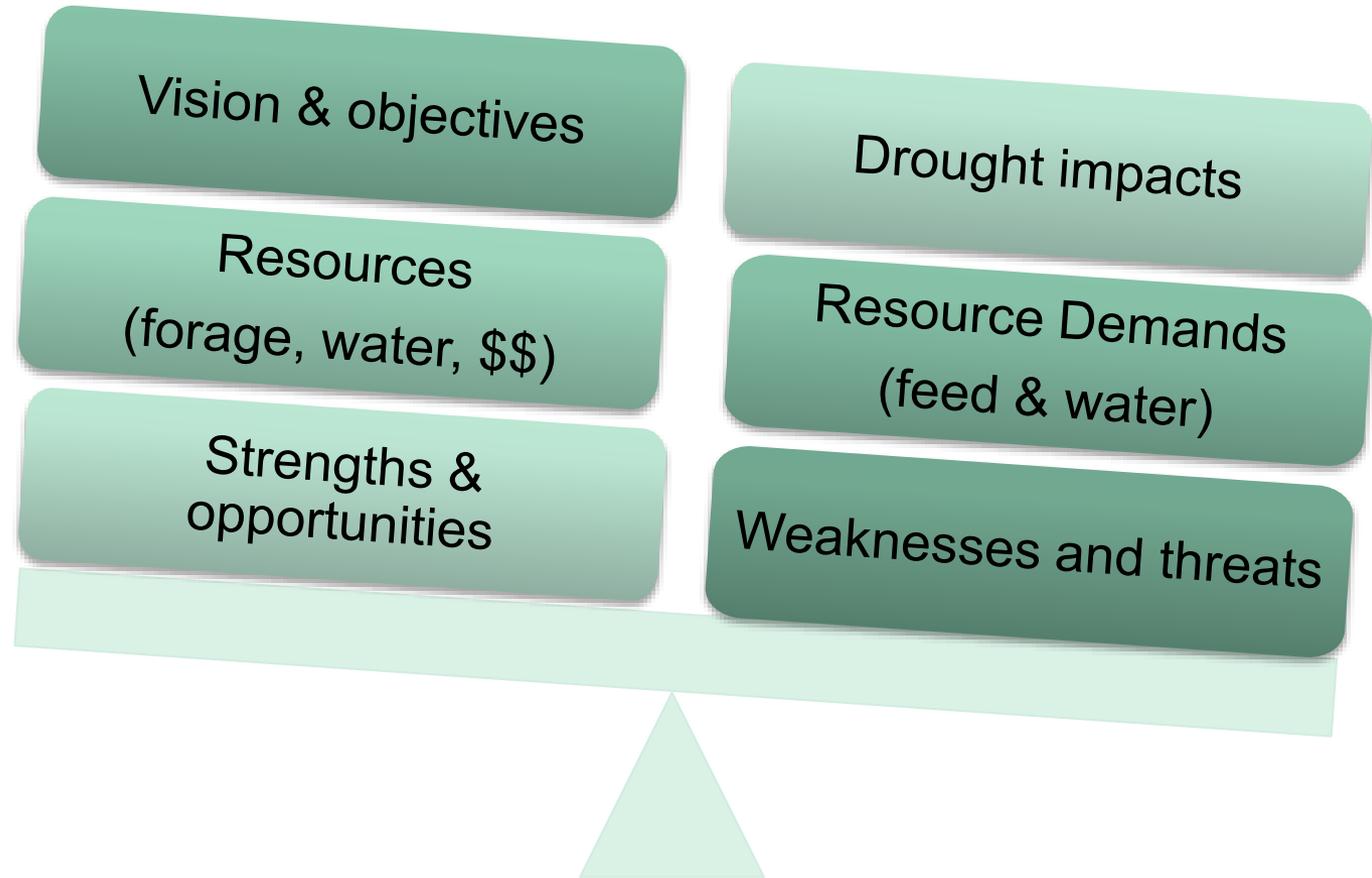
- Daybreak Ranch
- Reed-Hamilton Ranch
- Tippets-Myers Ranch
- Shamrock Ranch
- Adams Ranch
- Alexander Ranch
- Welch Ranch
- Johnson Ranch





WHAT'S IN A DROUGHT PLAN?

Plan is built on understanding of ranch's...



Inventory and Monitor – Know what you're working with

Date
1/1/2000 to 05/12/2015
Station start date: 1/1/1935

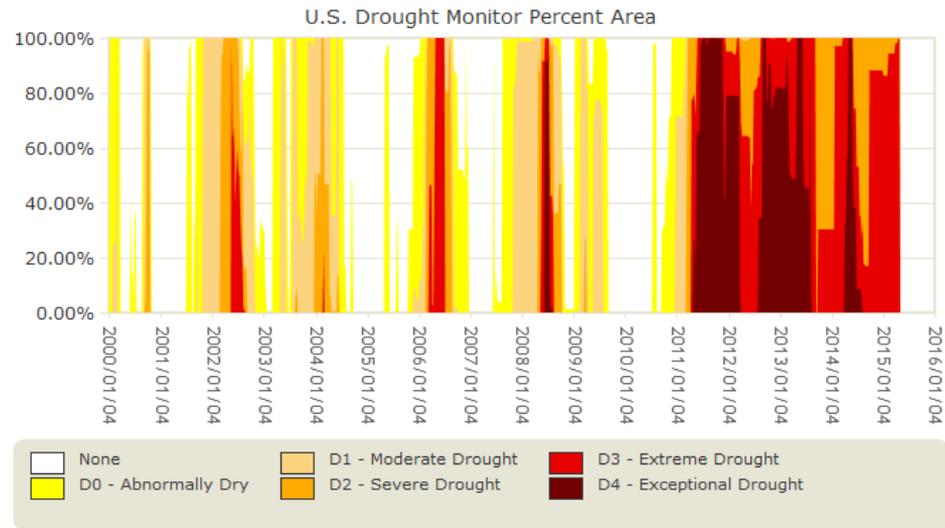
The Drought Monitor is only available starting on 1/1/2000.

Boundary
Select a DM boundary

State (<i>Oklahoma</i>)
County (<i>Texas</i>)
Climate Division (<i>1</i>)
HUC-2 (<i>Arkansas-Red-White</i>)
HUC-4 (<i>North Canadian</i>)
HUC-6 (<i>Upper Beaver</i>)
HUC-8 (<i>Middle Beaver, Kansas, Oklahoma.</i>)

Note: The data are for the area containing the selected station.

Results for **HOOKER (344298, County)** between 1/1/2000 and 05/12/2015.



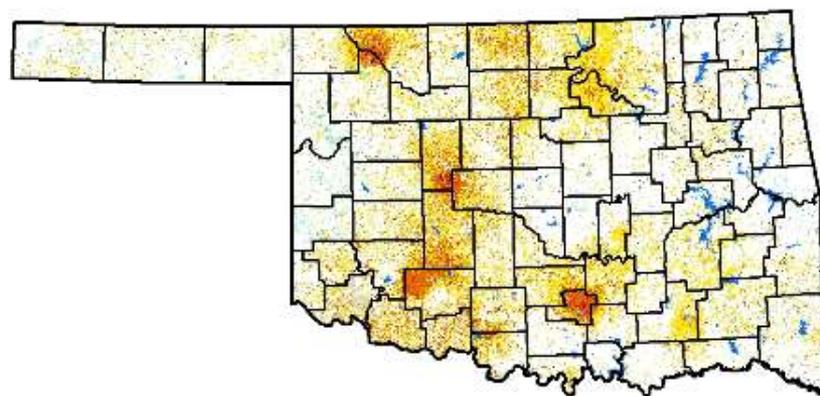
To zoom in on the chart, click and drag across the chart area. To return to the complete chart, double-click in the chart area.

Monitoring Tools

Vegetation Drought Response Index (VegDRI):

Vegetation Drought Response Index
Complete: Oklahoma

May 4, 2015



Vegetation Condition

-  Extreme Drought
-  Severe Drought
-  Moderate Drought
-  Pre-Drought
-  Near Normal
-  Unusually Moist
-  Very Moist
-  Extremely Moist
-  Out of Season
-  Water



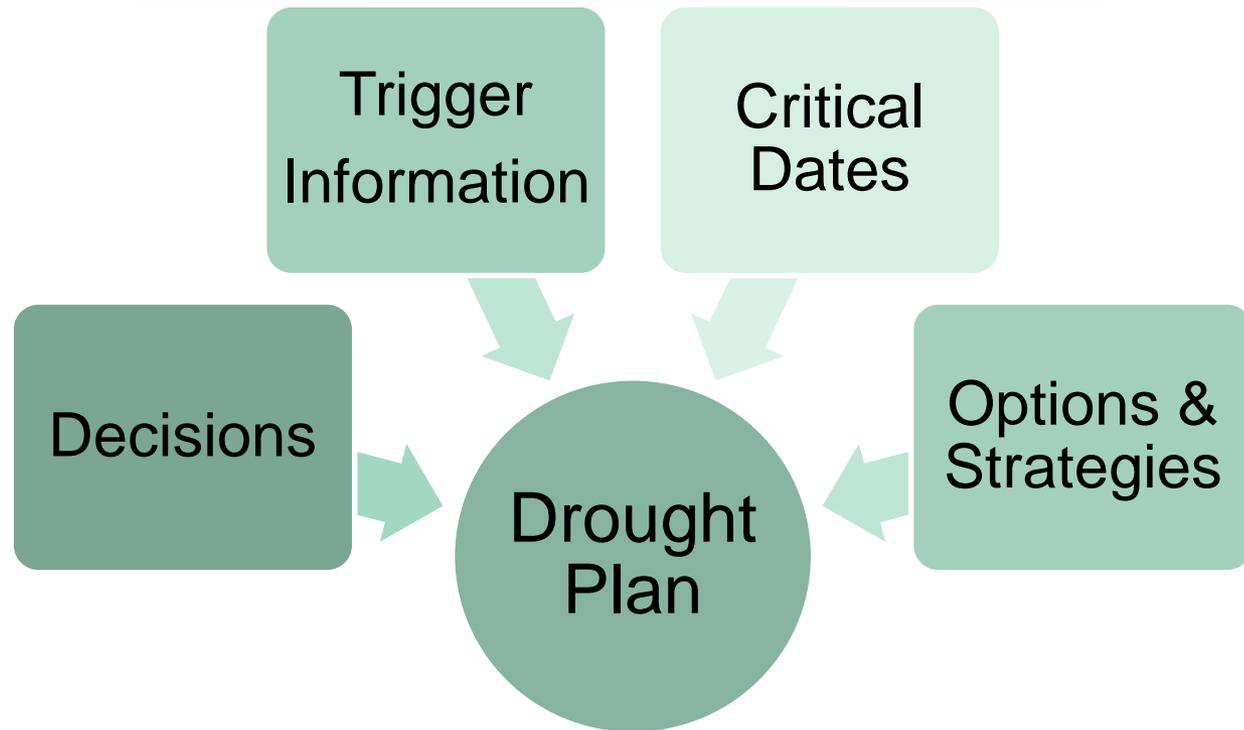
Building Resilience



- Maximize health of resources
- Build flexibility into operation
 - “We build enough in the good years that we can stand a two-year drought....In the good years we build lots of reserve. In the drought years we take off...”
- Ongoing monitoring



Developing a Drought Plan



Write it down!

“I think it’s real important to have that discipline, and writing it out is probably as good a way as any to get that discipline.”

CRITICAL DATES

AVERAGE ANNUAL RAINFALL- 21 inches/year.

CRITICAL DATES- April 1, June 15, August 15, & Nov 1

April 1

- End of the winter dormant season and the beginning of the growing season for warm season grasses
- < 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)
- < 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



PLANNING RESOURCES



Overview

Drought Basics

Inventory & Monitor

Before Drought

During Drought

After Drought

Write a Plan



Overview

Register Login

Managing Drought Risk on the Ranch

Drought is a normal part of climate...it will happen again. Fortunately, there are things you can do before, during, and after drought to reduce your risk. Ranchers are increasingly implementing new ways to better prepare for and respond to drought.

The information, strategies and resources on this site are designed to provide livestock producers in the [Great Plains region](#) with information on how to incorporate management strategies to reduce the threat drought poses to livestock and forage operations.

[Download "Managing Drought Risk on the Ranch" Handbook](#)

Managing Drought Risk on the Ranch: Great Plains Examples

South Dakota



[Daybreak Ranch](#)
(Central)

Nebraska



[Tippets-Myers Ranch](#)
(Western Sandhills)
[Reed Hamilton Ranch](#)
(Sandhills)
[Shamrock Ranch](#)
(Southwestern)

Kansas



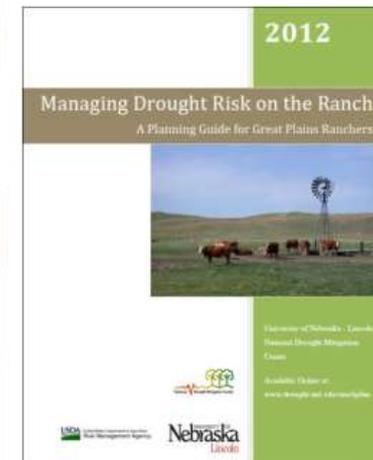
[Alexander Ranch](#)
(South Central)
[Adams Ranch](#)
(North Central)

Colorado

[Welch Ranch](#)
(Southern)

Texas

[Johnson Ranch](#)
(West Central)



[How to use this site](#)

Drought Conditions

[U.S. Drought Monitor](#)

[Water Year Precipitation \(Oct. 1st to present\)](#)

Managing Drought Risk on the Ranch

[Home](#) > [After Drought](#)[Login](#)

What To Do After Drought

This section contains information about steps you should consider after a drought.

[Start Here After a Drought](#)

Related Pages

Recovering after Drought - Lessons from [Shamrock Ranch](#)

Grass Recovery after Drought



The end of a prolonged severe drought will be memorable. When drought ends, vegetation recovery should become a primary management objective.

[Grass Recovery](#)

Management Priorities after Drought



Restoring range health and meeting production goals are both priorities after a drought that require careful planning.

[Management Priorities](#)

Financial Considerations after Drought



After a drought period is over is a good time to reflect and assess the performance of your response to drought conditions.

[Financial Options](#)



Managing Drought Risk on the Ranch

Home > Write a Plan > Sample Drought Plans

Login

Sample Drought Plans

These sample drought plans have been contibuted by ranchers, consultants, and advisors throughout the Great Plains. They range from very simple to quite detailed. While they do not all follow the planning methods suggested here, they may help you decide what sort of plan is needed for your ranch operation.

A key point to remember with any planning process is the old saying, "garbage in - garbage out." The better job you do collecting information about your operation and evaluating your options before, during, and after drought, the better the results of your plan will be.

Sample Plans

South Dakota

[Central South Dakota - Daybreak Ranch](#)

Nebraska

[Southwest Nebraska - Shamrock Ranch](#)

[Western Nebraska Sandhills - Tippetts-Myers Ranch](#)

[Nebraska Sandhills - Reed Hamilton Ranch](#)

Kansas

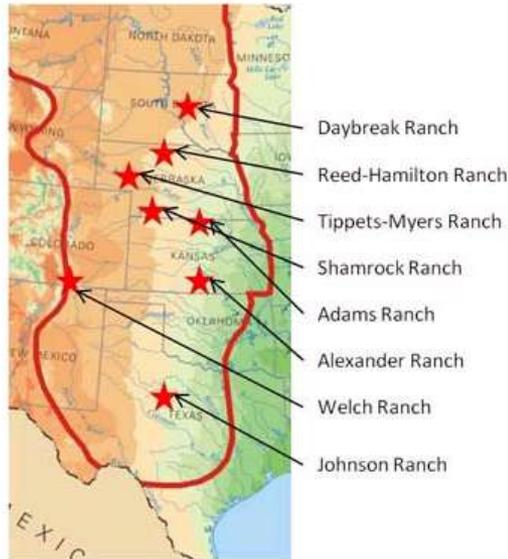
[South-Central Kansas - Alexander Ranch](#)

[North-Central Kansas - Adams Ranch](#)

Colorado

[Southern Colorado Case Study - Welch Ranch](#)

Texas



Content: Sample Plans

[Central South Dakota - Daybreak Ranch](#)

[Nebraska Sandhills - Reed Hamilton Ranch](#)

[Nebraska Sandhills - Tippetts-Myers Ranch](#)

[Southwest Nebraska - Shamrock Ranch](#)

[North Central Kansas - Adams Ranch](#)

[South Central Kansas - Alexander Ranch](#)

[Southern Colorado - Welch Ranch](#)

[West Texas - Johnson Ranch](#)

Related Pages

Steps to Writing a Drought Plan:

1. [Form Planning Team](#)
2. [Set Goals/Strategic Objectives](#)
3. [Inventory](#)
4. [Identify Critical Dates and Targets](#)
5. [Develop Monitoring Plan](#)
6. [Develop Strategies](#)
7. [Implement and Monitor Plan](#)



Managing Drought Risk on the Ranch

Write a Plan > Sample Drought Plans > South Central Kansas - Alexander Ranch

Login

Sample Drought Plan - South Central Kansas

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.

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

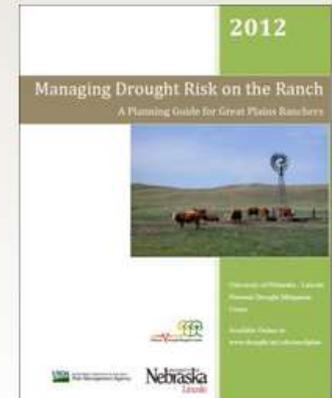


Ted Alexander and son Brian

Write a Plan for Drought

Drought is a normal part of climate...it will happen again. Fortunately, there are things you can do before, during, and after drought to reduce your risk. [Learn more...](#)

Download "Managing Drought Risk on the Ranch" Handbook



2012

Managing Drought Risk on the Ranch

A Planning Guide for Great Plains Ranchers



University of Nebraska - Lincoln
National Drought Mitigation
Center



Available Online at:
www.drought.unl.edu/ranchplan



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This guide to help rangeland managers better prepare for and manage drought is a project of the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln (UNL) and other collaborators at UNL, South Dakota State University, and Texas A&M Kingsville. This project was made possible through funding from the U.S. Department of Agriculture Risk Management Agency.

Much of the content of this handbook and the companion website was developed with information provided by Dr. Pat Reeves, Professor Emeritus at UNL and now owner/consultant with Prairie Montane Enterprises, LLC.

The handbook and website were developed by, and will be maintained by, the National Drought Mitigation Center. Comments and questions about the handbook and website can be directed to the NDMC at ranch_ndmc@unl.edu or 402-472-6781.

<http://drought.unl.edu/ranchplan>

WORKSHEET 4: CRITICAL DATES AND TARGET CONDITIONS

Date _____ Form Completed by _____

Critical dates are timely monitoring points in annual management cycles. Current and predicted forage resources are the primary focus of critical dates.

Each critical date should have an action plan that clearly states target points for initiating the plan.

Target points may be based on carrying capacity of current forage or a percentage of average precipitation, i.e., 75%.

See "Identify Critical Dates and Targets" at <http://www.drought.unl.edu/ranchplan> for suggested critical dates by region.



CRITICAL DATE	TARGET CONDITION

WORKSHEET 7: EVALUATE MANAGEMENT STRATEGIES DURING DROUGHT

Date _____ Form Completed by _____

DROUGHT STRATEGIES	IS IT FEASIBLE?	WILL IT HAVE AN IMPACT?	WILL BENEFITS OUTWEIGH COSTS?	TO CONSIDER?
FORAGE SAVING STRATEGIES				
FINDING ALTERNATIVE FEEDS & FORAGES				
FINANCIAL STRATEGIES				
FAMILY & PEOPLE STRATEGIES				
OTHER				

<http://drought.unl.edu/ranchplan>



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learn more at <http://drought.gov> and <http://drought.unl.edu>



NIDIS Engaging Preparedness Webinar on Climate and Health Using the Community Capitals Framework

by National Drought Mitigation Center

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The National Integrated Drought Information System's Engaging Preparedness Communities Working Group hosted this drought...



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Planning for a Drought - Ted Alexander

by National Drought Mitigation Center

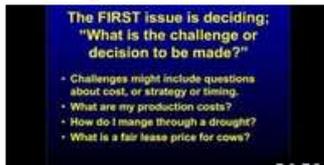
4 months ago • 29 views

Ted Alexander, owner of Alexander Ranch in south-central Kansas, describes his ranch operation and the ways that ...



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<http://drought.unl.edu/ranchplan>



Economic Factors to Weigh in Making Decisions during Drought, Matt Stockton, UNL

by National Drought Mitigation Center

4 months ago • 3 views

Matt Stockton, Agricultural Economist at the West Central Research and Extension Center in North Platte, Nebraska

NDMC on YouTube



Looking Ahead: Managing Drought and Recovery on the Ranch

May 21, 2015
10:30 a.m.—3 p.m.
Beaver County Fairgrounds
Beaver, OK



This workshop will feature information for ranchers who are dealing with long-term choices associated with drought, as well as drought recovery.

The workshop is free and open to the public.

Morning

- Managing Drought Risk on the Ranch—Tonya Haigh, National Drought Mitigation Center
- Drought in the High Plains: Current Status and Outlook - Gary McManus, Oklahoma Climatological Survey
- The role of Pasture, Rangeland, and Forage Insurance in a Drought Plan— Representative, USDA Risk Management Agency

Lunch Speaker

- Thinking Outside of the Box: Fire, Grazing, and Rangeland Health— Sam Fuhlendorf, Oklahoma State University

Afternoon

- Managing Regrowth and Drought Recovery - Curtis Bensch, Oklahoma Panhandle State University
- Managing Cattle with Limited Forage Resources - Britt Hicks, Oklahoma State University
- Producer Panel

Thank you!

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<http://www.drought.unl.edu/ranchplan>

