

Planning: The Key to Surviving Drought

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Drought management is often just a survival strategy. However, even survival requires that you have a plan flexible enough to deal with the individual circumstances of each drought as it comes.

What is a drought?

Droughts are a part of all environments and have plagued agriculturalists for centuries. At any one time, there are likely to be several severe droughts occurring in the world.

Drought can be defined in different ways for different businesses. For example, if you are a rancher, your definition probably includes forage growing conditions, not just precipitation levels. Nevertheless, the most common way to define drought is by precipitation totals.

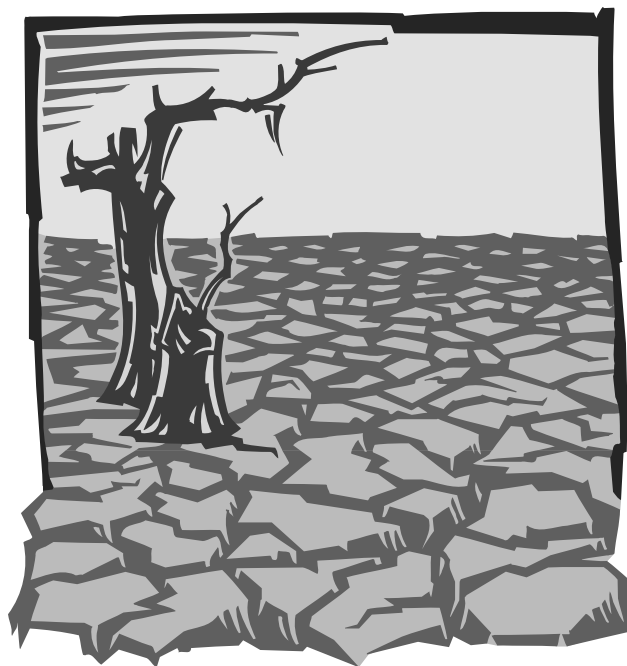
“True drought” has been defined as having 75 percent or less of the average rainfall for the year. Moving from East to West Texas, true drought occurs 16 to 45 percent of the time.

True droughts last only for 1 year in most parts of Texas, except in the Trans-Pecos region, which is more likely to have consecutive years of drought. The Trans-Pecos receives below-average amounts of rainfall in 2 of every 5 years.

How can I survive a drought?

Surviving drought requires planning for it. Your plan should include strategies for finances, grazing management and stock reduction, as well as for vegetation recovery after the drought ends.

It is important to implement a grazing plan that promotes vegetation recovery. For example, if warm-season grasses have been extremely stressed by successive years of low moisture, the eventual rains will provide some level of green growth. You will need to manage this new growth properly to give the tender



new leaves a chance to mature and use sunlight to replenish the depleted nutrient reserves in the roots.

Drought recovery implies a return to a previous condition. Unfortunately, droughts are often considered only temporary events, after which conditions will return to “normal.”

Some ecologists suggest that this may not be true in arid and semi-arid rangelands. These ecosystems may not automatically return to the same pre-disturbance “steady state.” (Some cases of brush encroachment within the past 100 years might be examples of this.)

Nevertheless, when rains do eventually come, sound grazing management practices will help the soil capture the rain that does fall and optimize forage growth.



Figure 1. Process for deciding what to do when a drought occurs.

How to devise your drought-survival plan

Planning to survive a drought involves selecting the right things to do. The Total Resource Management Program in Texas focuses on a process that helps ranchers make good choices. The program's eight-step approach (Fig.1) helps you consider the problem from a total resource perspective and form a drought survival plan.

Prioritize your strategic ranch goals

To form an effective plan, first determine your desired end point. Develop specific, measurable, attainable and trackable goals for your operation.

One goal for drought management might be just keeping the ranch. Other strategic goals might include:

- Maintaining the ranch's value and equity if land sales become necessary
- Preventing long-term damage to forage
- Maintaining livestock financial equity, or
- Keeping the integrity of a breeding herd intact.

List available resources to use during a drought

Keep a general listing of resources available or places that can provide them when a drought occurs. Such a list might include hay or other feed sources, grazing pasture to send livestock to, or potential buyers and/or marketing options for livestock reductions.

Identifying these sources ahead of time can help you take quick action when needed.

Select appropriate enterprises

Drought affects various ranch enterprises in different ways. For example, wildlife and livestock enterprises compete somewhat for existing vegetation. But wildlife may be better able than livestock to use woody browse species, which are less affected by short-term droughts than are the herbaceous plants consumed by livestock.

Make sure you have an appropriate mix of livestock classes for the frequency of droughts in your area. In more arid locations such as West or South Texas, where droughts are more common, consider including "stocker animals" as part of the herd mix to accommodate flexible stocking techniques. Often, in less severe droughts, these animals can be sold without sacrificing the integrity of the breeding herd.

In general, diversity of income from enterprises can help pull you through a mild or severe drought. You might consider some type of off-ranch income also.

Develop a drought plan for each enterprise

The most critical part of drought planning may be to form a drought strategy for each enterprise (cattle, sheep, hay, etc.) of your ranch operation. Develop production calendars for each enterprise to determine when to make critical decisions such as stock reductions, increased feeding or livestock relocation.

For example, know which months the most forage is grown on the ranch and which are the critical rainfall months. When a critical level of rainfall is not received by a certain date, plan for a systematic stock reduction or feeding strategy. If you reduce stock or begin a supplemental feeding strategy as early as possible during a drought, you can reduce the severity of the drought impacts.

In all situations, forage supply must meet or exceed forage demand. Therefore, you should inventory your forage every year. Your plan should incorporate strategies for dealing with poisonous plant problems also.

Plan for resource flow

Resource flow plans identify the resources that will be available during the year as well as those that will be needed by the entire ranch. These plans allow ranchers to ration seasonal surpluses for when the demand for resources exceeds the income of the ranch.

From a pure financial standpoint, you need to know the minimum level of production your ranch must have to cover variable costs, overhead expenses and cash flow needs. When these levels can no longer be met, you must either make decisions that reduce costs or have an adequate financial reserve available. Develop cash reserves before a crisis arises.

Implement and monitor

It's easier and more effective to implement a drought strategy if you have good plans and current information. Monitor the supply-demand situation by taking periodic inventories of resources, especially forage production, which is the most limiting factor during drought.

As the drought worsens, you will need to monitor and make decisions more frequently in order to maintain control and reach your goals. Although you cannot forecast rainfall with 100 percent accuracy, a good conservative plan with flexibility incorporated will help you be ready for what we cannot predict.

Formulate your stock reduction strategies long before the drought begins, and implement those reductions systematically.

Because no one can predict the severity or duration of an individual drought, there is no such thing as a perfect plan. However, the better your plan is, the more it can help. To help ensure that the plan has the expected outcomes, a good plan will:

- Include accurate records of the decisions you make and their consequences
- Establish benchmarks, such as photo-point monitoring on rangelands. (For more information on photo-point monitoring, see Extension publication L-5216, *Range Monitoring with Photo Points*.)

Other drought-management publications include:

- E-62, *Rangeland Drought Management for Texans: Livestock Management*
- E-63, *Rangeland Drought Management for Texans: Supplemental Feeding*
- E-64, *Rangeland Drought Management for Texans: Stocking Rate and Grazing Management*
- E-65, *Rangeland Drought Management for Texans: Toxic Range Plants*

Evaluate and adjust the plan when the drought is over

Experience is often the best teacher. After a drought is over, note and evaluate the strategies that did and did not work. Then reevaluate and change the plan so that it furthers your long-term strategic ranch goals.

REMEMBER:
You can survive a drought.
Plan on it!

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