

Toxic Range Plants

Charles R. Hart and Bruce B. Carpenter

Associate Professor and Extension Range Specialist, Assistant Professor and Extension Livestock Specialist;
The Texas A&M University System

Toxic plants can pose a major threat to livestock during a drought. Animals consume more of these plants during drought because fewer alternative range plants are available.

During drought, many of the more palatable range plants mature and dry up early. In contrast, many toxic plants can remain green during these periods. As a result, toxic plants increase in relative palatability and use.

These problems may be accentuated by livestock deficiencies of phosphorus or vitamin A, which can greatly alter grazing behavior.

To minimize losses to toxic plants, producers should learn how to identify the toxic plants, use good grazing and livestock management practices, and take measures to control the plants when necessary.

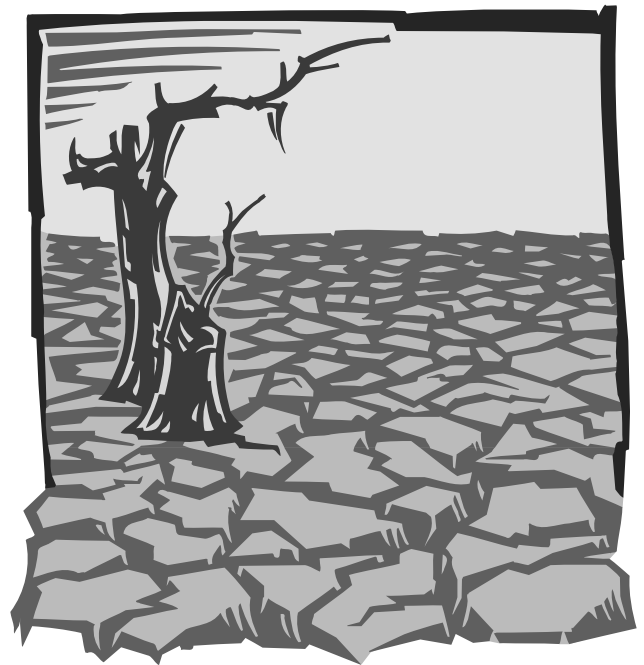
Know which plants are toxic

The first step in managing for toxic plants is being able to identify them. Ranchers must be able to:

- Identify plants that are toxic to livestock in their area
- Understand what makes them poisonous
- Recognize the symptoms produced when livestock consume them

Identifying toxic plants before they become a problem can prevent livestock poisoning problems. Taking preventive measures is preferable to having to perform autopsies on stricken animals to determine the cause of death. Extension publication B-6105, *Toxic Plants of Texas* is a helpful reference for learning about and dealing with toxic plant problems.

Remember: Preventing livestock poisoning is easier than curing poisoned animals.



Keep the range healthy

It is important to graze rangelands properly, because the effects of drought are greatly intensified on overgrazed or abused ranges. On such ranges, the more palatable nontoxic plants are weakened, and even the slightest of droughts can cause severe problems.

When the drought initially breaks or when small thunderstorms pass through, overgrazed and drought-weakened ranges are highly susceptible to a sudden flush of toxic plant growth. As the drought worsens, the potential for toxic plant problems becomes even greater.

Temporary drought or extended dry periods may also cause some plants to wilt and become toxic that would normally not be a threat.

Prevent toxic plant problems

If livestock must graze—as usually is the case—poisonings may be inevitable. However, you can reduce or eliminate the chances for toxic plant poisonings by following these general rules:

■ Use good grazing management practices.

Keep stocking rates flexible to match forage demand with supply. Consider using a grazing system that allows plants to rest during a drought.

Livestock distribution within a pasture becomes even more important in drought situations. Good distribution allows for an alternative forage choice over toxic plants.

For more information, see Extension publication E-64, *Rangeland Drought Management for Texans: Stocking Rate and Grazing Management*.

■ Practice good livestock management.

Strategic supplemental feeding may help reduce losses to toxic plants. Provide adequate protein and phosphorus supplements to reduce the chance livestock may seek out toxic plants that are high in protein.

Vitamin A deficiency, also common on drought-stressed rangeland, may alter an animal's grazing habits and cause it to consume toxic plants it would normally graze around.

Never release hungry animals into a pasture known to have toxic plants, especially when toxic plants are the only "green" forage available.

Refer to Extension publication E-62, *Rangeland Drought Management for Texans: Livestock Management* for more information on this topic.

■ If necessary, take measures to control toxic plants.

Mechanical, chemical or biological control methods may provide necessary protection from toxic plants during drought. It is vital to know where, when and how to best control these plants.

Mechanical control methods that physically remove plants from a pasture are good options during drought. This may be removal of a toxic brush species with heavy machinery or mowing or pulling annual toxic plant species. Be careful with large-scale mechanical practices that greatly disturb the soil surface, as toxic plant problems may increase.

For chemical control during drought, individual plant treatments (IPT) may be better than broadcast treatments. IPT measures allow you to treat only the target species, leaving the other broadleaf weeds as potential feed.

Biological control can be used for plants that are toxic to one class of livestock but not to another. You can "clean up" the range by first grazing with animals that are not affected by the plant toxins. Later in the season, graze the animals that would be affected by the plants.

Summary

The first step in preventing toxic plant poisoning is to know which plants are toxic and how they affect livestock.

Pastures historically overgrazed can cause problems earlier, but even well-managed pastures can produce poisonous plant problems during drought. It is critical that you observe livestock grazing habits carefully during drought.

Once you have identified the toxic plants and problem areas, take these steps to prevent poisoning:

- Practice good grazing management, which is probably the most important way to deal with potential toxic plant problems.
- Use good livestock management practices, such as closely observing animals new to an area, grazing with the proper class of livestock, and implementing proper supplemental feeding strategies.
- Recognize when plant control is necessary and what type of control is best. Control strategies that target infestations before they become large problems are generally the most economical.

Other drought-management publications include:

E-61, *Rangeland Drought Management for Texans: Planning: The Key to Surviving Drought*

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*

Produced by Agricultural Communications, The Texas A&M University System
Extension publications can be found on the web at <http://texaserc.tamu.edu>

Educational programs of the Texas Agricultural Extension Service are open to all people without regard to race, color, sex, disability, religion, age or national origin.

Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture. Chester P. Fehlis, Deputy Director, Texas Agricultural Extension Service, The Texas A&M University System.