

Avoiding Poisonous Plant Problems

Background



Toxic plants can dramatically increase livestock costs, both directly and indirectly. Direct losses occur when livestock suffer from toxicosis, resulting in illness and death. Indirect losses are the result of increased management costs, fencing, and treating areas with herbicides that are infected with poisonous plants. Livestock typically avoid most poisonous plants because most cause aversive postingestive consequences. When livestock consume small amounts of most toxic plants, livestock experience nausea and associate the taste of the food with the nausea. Thus, livestock can quickly learn to avoid plants that cause aversive postingestive consequences.



Avoiding the Problem

Livestock consume toxic plants to meet their nutritional requirements. If landowners provide nutritious alternatives, then animals typically avoid most poisonous plants. Thus, proper mineral and protein supplementation, proper stocking rate, and managing for a diversity of forages reduces the likelihood of livestock consuming poisonous plants. The first step in avoiding plant-induced issues is to establish the correct stocking rate for your area. In addition, landowners should implement some type of rotational grazing to allow plants to recover from defoliation. During the winter, most forage plants are dormant. During this time, providing supplemental protein is essential in maintaining a healthy digestive system and in rectifying protein deficiencies from consuming dormant range forages. Year-around mineral supplementation is also needed to meet the nutritional needs of livestock. These vary from location to location in Texas. However, most rangelands in Texas are deficient in phosphorus and high in calcium. An equal ratio of calcium to phosphorus along with essential vitamins and trace minerals will help reduce the likelihood of livestock consuming poisonous plant. Finally, encouraging a variety of plants (grasses, forbs, shrubs) increases dietary choices for livestock, reducing the likelihood of consuming toxic plants

Summary

In summary, poisonous plant problems are management problems that result from improper management decisions. Overstocking, continuous grazing, and lack of proper supplementation result in forcing livestock to consume toxic plants. Sound grazing and supplementation decisions will reduce the number of toxic plant losses while improving rangeland productivity and diversity.



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*Providing Leadership for the Stewardship of Rangelands Based
on Sound Ecological Principles*

Picture by M. Downey