

RANGELAND RISK MANAGEMENT FOR TEXANS: COMMON BRUSH AND WEED MANAGEMENT MISTAKES

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Texas rangelands support many species of brush and weeds. The plant species that occur on rangeland change over time with natural plant succession. On land that is overgrazed, the amount of brush and weeds will increase. To effectively manage brush and weeds, managers must select appropriate treatments and determine the best timing for them. They must know how to manage the land before and after treatment, and plan for monitoring the land's response to the treatment and carrying out a maintenance control program. They must also know how to gauge the effects of brush and weed management on other uses of the land (such as wildlife habitat) and on its real estate value. Finally, they must be able to analyze the financial risks associated with any brush management investment.

The following list of common myths and mistakes associated with brush and weed management can help you determine how to approach this management activity.

1. All brush and weeds are bad.

Attempting to control undesirable weeds and brush for livestock production can cause significant damage to desirable plants that wildlife need. Wildlife depend on woody and broadleaf plants for food and cover. The importance of wildlife to the ranch business must be considered before weed or brush management practices are implemented. You will want to protect key plant species and habitat "honey holes" that wildlife depend on. Learn to identify your desirable plants and their values to livestock and wildlife. Select the management approach that allows you to achieve your combination of goals, understanding that it is impossible to maximize production for all enterprises, but it is possible to optimize benefits.

2. Weed and brush control always produces more grass.

Weeds and brush compete with other vegetation for soil moisture, nutrients and space. However, controlling weeds and/or brush does not guarantee increased production of more desirable plants. There must be at least a remnant seed bank of desirable plants remaining before the treatment. Also, posttreatment management (grazing, maintenance treatments, etc.) must allow desirable plants to recover and sustain production over time. If the area has had a history of abuse and overgrazing, this seed bank will not be present and undesirable plants may flourish following treatment.

3. Weed and brush control increases ranch profit.

Weed and brush control treatments are expensive and their costs and benefits must be evaluated ahead of time. Consider not only the cost of the initial treatment, but also the life of the treatment, the costs and frequency of maintenance treatments, the projected forage response, the effect on other ranch enterprises (wildlife, recreation, etc.), and the risk involved.

4. One treatment will do it!

Weed and brush control treatments are not permanent; in fact, many are very short-lived. To recover the cost of the initial treatment and prolong its effect, it is usually necessary to make periodic, low-cost maintenance treatments as part of a comprehensive, long-term weed and/or brush management plan.

5. A little more will do it!

Using more herbicide than the recommended rate will not kill more brush and weeds. In fact, increasing the rate may rapidly defoliate plants but kill significantly fewer roots, and at a higher cost. Recommended rates are based on research that determines the rates that will achieve the best results, at the least cost, while protecting the

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environment. Read herbicide labels carefully and follow the directions explicitly. Contact your county Extension agent or Natural Resource Conservation Service (NRCS) personnel for specific information on the use of herbicides in your area.

6. My neighbor told me - - -!

Many home-concocted weed and brush control treatments are passed through the grapevine. Beware—most are not as effective as recommendations you will receive from the Extension Service, NRCS, or the herbicide label. In fact, some untested recommendations may be dangerous to you, to livestock and wildlife, and to the environment. Many may be illegal. When a neighbor or salesperson at the local feed store suggests a specific treatment, check the label and ask the experts to make sure it is accurate, safe and legal.

7. Wait until the brush gets big and thick and then kill it.

It is much easier and less expensive to kill seedlings and saplings than to kill mature brush. Small brush plants that don't grow too densely can be treated with individual plant treatment techniques, which usually kill more plants than broadcast applications. However, the cost of using individual plant treatments increases as the number and size of the plants increase, which is not true of most broadcast treatments. Thus, it is important to treat brush problems early. The deterioration of desirable vegetation can be prevented if brush is controlled before it becomes large.

8. Treat from fenceline to fenceline.

Some range sites do not have the potential to produce enough more forage to justify the expense of a weed or brush control treatment. Weed and brush control efforts are best targeted to sites with deep soils that receive runoff from adjacent upland areas. Shallow ridges, slopes and hilltops are usually best left as wildlife habitat, or given a much lower priority for treatment than more productive areas.

9. After I get that bulldozer or airplane in here, this place will turn into a sea of grass.

Weed and brush management is not a miracle cure for rangelands. Treatments do not have the same results every time. Most herbicide treatments are greatly affected by climate and plant characteristics, which are not very predictable. To achieve the best results and really accomplish your goals, the

overall management of the rangeland must also improve. The treated area must be given time to establish a desirable cover of vegetation before it is put to "normal" use. Proper livestock stocking rates are critical to both the success and longevity of the treatment. Desired results will not occur overnight. Long-range planning, careful monitoring and sound management are required.

10. Herbicides are unhealthy for the environment and humans.

Herbicides can harm organisms directly exposed to them. They can also alter the habitat in ways that may be harmful to some species. However, herbicides are invaluable for controlling undesirable plant species. Their toxicity to humans and wildlife has been evaluated and is detailed on product labels. Labels identify the proper rates and timing of herbicide applications; following these directions minimizes risk to wildlife, humans and the environment.

11. Fire destroys the pasture!

Rangeland vegetation is adapted to periodic burning and properly planned prescribed fires are very beneficial in many situations. Some fires can be very destructive if proper management is not carried out before and after the fire. Livestock and wildlife are attracted to recently burned areas and can overgraze them if allowed. Burned areas must be given time to recover before they are grazed.

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