



FORAGE FACTS

Publication Series

RANGELAND BRUSH AND WEED CONTROL

INTRODUCTION

The main objective of brush control is to minimize the population of woody plants on rangeland to increase or maintain an optimum amount of area available for livestock grazing. Other potential benefits of brush control include: (1) increased forage quality; (2) increased animal production; (3) easier handling and care of animals; and (4) reduction of potential fire hazard if volatile fuels like cedars are removed. Total removal of all woody plants is not necessary or recommended. Brush and trees around watering areas, in ravines, and other areas where they are difficult and expensive to control can provide shade and winter protection for livestock and wildlife. Complete removal of these plants would have little effect on livestock carrying capacity. The key to brush management is recognizing potential problems and controlling them before they become severe.

PRESCRIBED BURNING

Prescribed burning can keep rangeland almost free of unwanted brush, and it can also be a low-cost way to control many woody species after establishment. It is most effective in late spring, when brush and trees are small, and adequate fuel (old grass) is available to generate a hot fire.

Seedlings and sprouts can be controlled by fire, whereas, large, mature trees can't be as effectively controlled. Burning in late spring for three or more consecutive years is required to control species that resprout. Redcedar, buckbrush, elm, oak, and hedge can be controlled effectively by burning, however, sumac can be enhanced by a late spring burn because the plant may be dormant when the prescribed burn occurs.

CHEMICAL CONTROL

Most woody plants are susceptible to herbicides when applied properly. All chemicals must be applied according to the label directions. Be sure to read all label information. The application of herbicides can be done by one of several methods.

Aerial or Ground Application. Chemicals may be applied by air or ground sprayers when heavy stands or large areas are to be controlled, but proper herbicide selection, timing of application for the optimal growth stage and proper application rate are important factors to consider. Most foliar-applied herbicides should be applied at full leaf stage when plants are actively growing.

Basal Bark. Some species can be controlled by applying a mixture of diesel and herbicide to the lower 18 to 24 inches of the trunk. The mixture should be applied all the way around the trunk and allowed to drain at the soil line to reduce root collar sprouts.

Cut Stumps. Many species, except redcedar, resprout after cutting near ground level. Treating the exposed surface with a herbicide shortly after cutting will usually prevent regrowth.

Pellets or Granules. Spot treatments applied by hand or aerial application of pelleted or granular herbicides are effective when used properly. The herbicide is leached into the soil by rainfall and then absorbed by the plants. Pellets or granules should not be applied on

frozen or water saturated soils, and their effectiveness can be reduced on soils that contain high amounts of clay.

Soil Applied Liquids. The application and action of liquids are similar to pellets and granules except they are more effective on heavier clay soils.

TIMING OF HERBICIDE APPLICATION

Generally, brush is most susceptible to foliar applied herbicides immediately after the full leaf stage in the spring because herbicides are absorbed and translocated to the site of action. Since the growth and development of plant species differ, the application date needs to correspond with the target species. For example, buckbrush is in full leaf by late April or early May, whereas hedge trees are not in full leaf until early June. Blackberries are most susceptible to herbicide control when treated in early to mid-June, which is well after the full leaf stage. Only an actively growing or flowering sericea lespedeza is susceptible to a treatment between June and September.

WEED CONTROL

Many plants regarded as weeds by producers can be a forage source for livestock or an important

component of the grassland ecosystem. These plants should be controlled if they result in an increase in forage utilization by grazing livestock or if they are considered noxious weeds by individual counties. A prescribed burn can greatly reduce annual weeds if conducted after the initial emergence of seedlings. Producers who choose to control weeds with chemicals should contact the local county Extension office for recommendations in the annual issue of *Chemical Weed Control for Field Crops, Pastures, Rangeland and Non-Cropland* from Kansas State University.

OTHER PUBLICATIONS

Rangeland Weed Management (MF-1020)

Rangeland Brush Management (MF-1021)

Prescribed Burning Safety (L-565)

Prescribed Burning: A Management Tool (L-815)

Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland (Report of Progress issued annually)

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