

Pasture and Rangeland Weed Control Part 1

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Rangeland plants not readily grazed by livestock generally are considered undesirable weeds that should be eliminated. Many plants regarded as weeds, however, are intricate components of the grassland. Therefore, it is important to distinguish between desirable rangeland species and weeds that adversely affect forage or livestock production.

Weeds and Forbs; A weed is any plant growing where it is not wanted. In general, weeds are opportunistic plants that compete with desirable forage for moisture, nutrients, and space. Forbs are broadleaf plants that may be either desirable or undesirable. The presence and abundance of weeds and forbs help determine range condition. Livestock routinely graze forbs to help meet nutritional requirements. As stocking rate increases, desirable forb production decreases.

Grazing intensity also influences the abundance of undesirable forbs and grasses. Perennial forbs that are not eaten by cattle will increase on overgrazed rangeland. Removing weedy species that compete with perennial grasses can increase forage production. Forbs can actually benefit grass production by modifying the microclimate. By providing shade and shelter from the wind, forbs reduce evaporation and temperature of nearby grass plants, which increases water use efficiency. Some weeds may not directly reduce herbage production but can adversely affect livestock performance.

Controlling unwanted plants can be expensive and difficult. Poisonous, noxious, and invading weeds that are not compatible with range forage should be targeted for control. Many “weeds” are actually beneficial to livestock and wildlife, and the consequences of their removal should be considered before a control program begins. Because species respond differently to control attempts, accurate identification of the undesirable weed is important for successful management. Forage production decreases as weed encroachment increases; at some level, weed populations become high enough to warrant control. Reducing unwanted plants to a tolerable level generally is more economical than attempting to eliminate them.

Grazing management is the most economical way to manage weeds. Livestock will graze many weeds early in the growing season. Because their growing points are exposed, forbs are weakened more than grasses by repeated grazing. The competitive ability of warm-season perennial grasses is improved if rangeland is periodically rested during the last half of the growing season. Intensive stocking in the first half of the growing season and then resting the pasture from grazing, can effectively reduce many weed species and improve range condition. It supplies abundant fuel for burning the following spring. Selective grazing by different kinds of animals also can affect weed populations. Livestock and wildlife species prefer different types of forage. Horses eat very few forbs and their intense grazing pressure on grasses favors weed establishment. Sheep eat less grass and more forbs than cattle and will consume many forb species that are unpalatable to cattle. Deer and goats primarily consume forbs and browse, and generally do not compete with cattle for forage.

Next week, we will look at a few more management strategies as well as chemical control measures.