

Forage Extension Program

Elk

Habitat Management Suggestions for Selected Wildlife Species

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The Rocky Mountain elk, or Wapiti, occurs throughout most of the mountainous and forested portions of Montana. Elk habitat in the state varies from the arid Missouri River Breaks, to the moist coniferous forests of the West. Elk are found from the mountain brushlands and meadows, aspen groves and open parks adjacent to heavy timber, to the foothill grasslands east of the continental divide. Excellent habitat in western Montana was created during the early 1900's by large forest fires and the vast acres of brushland that resulted through plant succession.

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Foods

Elk in Montana occupy a variety of habitats and thus feed on a wide range of forage species - the leaves, succulent stems and fruits - from trees, shrubs, forbs and grasses. Since elk are adaptable, their diet may vary from one range to the next. This variation depends to a large degree on the availability of forage species and is a function of the composition of plant communities. What may be a choice food on one range may rate no better than fair on another. Important elk foods can be classified into two categories according to each food's ability to attract and sustain elk in good physical condition. Proper classification reflects seasonal palatability and nutritional content of plant parts eaten. Choice foods attract elk and maintain health and reproduction while fair foods are somewhat deficient, but usually sufficient to maintain life through critical periods of the year.

Elk prefer native bunchgrasses for winter forage; however, they will feed on other grasses, sedges, forbs and shrubs. During spring, elk feed extensively on green grasses and, with the arrival of summer, switch mostly to forbs such as dandelion, geranium, aster, clover and trefoil. Grasses again become the most important food component in the fall diet. On browse ranges of western Montana, as much as 90 percent of the winter diet and 50 percent of the summer diet may consist of browse species. Habitat used by elk in the state is classified as browse range and grassland range on the basis of winter food availability. Browse ranges predominate in the heavily forested regions of western Montana, with a gradual transition in plant communities from western browse ranges to east slope grassland ranges. Choice foods of browse ranges are willow, redstem ceanothus, mountain maple, serviceberry, chokecherry and sedges. The preferred species occur in greatest quantity on burned-over lands where the forest canopy is sparse or absent. Choice forage species of grasslands include Idaho fescue, bluebunch wheatgrass, western wheatgrass, Sandberg bluegrass and rough fescue.

Habitat Management Suggestions

Management of rangelands for elk must consider dual and competitive uses of important forage species by domestic livestock. Use of a range is usually determined by examining the percent of annual growth of plants eaten by animals - domestic and wild. As a rule of thumb, we know that forage is being utilized too heavily when more than 50 percent of the available annual growth of key species has been consumed. In such cases, either livestock

or elk numbers should be reduced - by seasonal management of livestock or by increased harvest of elk through hunting. To recognize proper use, overuse and general range conditions, an experienced range conservationist, biologist or soil conservationist can be helpful.

Woodland habitat in mountainous elk range usually accumulates deep snow in the late fall and winter and elk must migrate into the foothills and lower rangelands for winter forage. This is a critical period for elk, and the season when death losses are most likely to occur.