



American Sheep Industry
Association, Inc.

Fast Facts...

Sheep are a natural, low-cost means of managing America's federal, state and private lands, even as they produce other resources, such as wool, meat and lanolin. Proper grazing can benefit the environment, wildlife, the tax-paying public and consumers.

Sheep grazing can be an effective biological control program to increase conifer growth. Furthermore, sheep are less costly than chemicals or mechanical vegetation-control measures. In the United States and Canada, sheep grazing has helped regenerate ponderosa pine, Douglas fir, radiata pine, sugar pine, spruce and western hemlock forests.

- In California, Oregon and Washington, the U.S. Forest Service finds sheep an effective replacement for herbicides in the control of brush and weeds that would otherwise crowd out conifer seedlings. The Washington Department of Natural Resources found that Douglas fir growth increased 26% as measured in diameter and 18% in height over a 20-year period as a direct result of livestock grazing.
- In California's Tahoe National Forest, about 1,000 sheep help promote tree growth in a forest area that burned in 1978.

Sheep grazing is a promising tool for enhancing wildlife habitats. Sheep foraging habits help create and maintain biological diversity. The key is for wildlife biologists, rangeland managers and sheep producers to devise a "grazing formula" that achieves the best outcome for a specific ecosystem.

- In western Oregon, early summer grazing provides black-tailed deer with higher protein vegetation during the critical winter months. The black-tailed deer sharing these sheep-grazing



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habitats have heavier average body weights, are in better physical condition and breed earlier than deer feeding in ungrazed areas.

- Improved rangeland conditions have contributed to a significant increase in U.S. wildlife. Since 1960, elk populations have increased by nearly 800%, moose by 500%, bighorn sheep by 435% and antelope by 112%.
- Idaho uses sheep to manage and enhance mule deer and upland bird habitats.

Sheep eat woody and broadleaf plants as well as tall weeds and grasses. As a result, sheep are an ideal tool for controlling undergrowth in forests and other wooded areas. The U.S. Forest Service uses "fire fighting" sheep as a low-tech, low-cost approach to undergrowth control on national forests. This approach benefits the forest environment by eliminating the need for herbicides, it benefits the Forest Service by reducing the need for costly manual clearing and it benefits communities at risk of wildfires in neighboring forests.

- In California's Angeles National Forest, north-east of Los Angeles, sheep keep 13,000 acres of ridge-top firebreaks free from flammable chaparral and other brush.
- Sheep act as brush-control on private lands in northern and southern California, as well as the Pacific Northwest.
- In Vermont and Alberta, Canada, sheep are used to control brush invasion on ski slopes.



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Noxious weeds are a major threat to both public and agricultural lands, killing surrounding vegetation and triggering soil erosion. The weeds not only make the land unfit for agriculture and cattle, they threaten to drive out native plant species and destroy wildlife habitat. Sheep are unique in that they readily consume plants other animals avoid or find toxic. As a result, sheep are used extensively to control noxious plants.

- Leafy spurge (*Euphorbia esula*) is an invasive, indestructible weed that infests an estimated 3 million acres of farm and public lands in 26 northern states. The problem is particularly severe in Montana, Wyoming and the Dakotas. While leafy spurge is toxic to most animals, sheep thrive on the weed.
- In Montana, the Bureau of Land Management (BLM) found that proper sheep grazing resulted in up to 90% control of leafy spurge, greatly reducing the need for costly herbicides.
- In Oregon's Baker County, spurge outbreaks have been controlled by sheep. An estimated 1,000 sheep trucked in from California graze the county's 80 spurge-infested acres at a cost of \$4,000, far less than herbicides.
- In the West, sheep can provide 85% control of spotted knapweed (*Centaurea maculosa*), another invasive and poisonous plant species. In Montana, alone, spotted knapweed has infested 810,000 acres, including parts of Glacier National Park.
- Montana State University researchers report that sheep successfully graze a variety of other noxious weeds. These include fringed sagewort (*Artemisia frigida*), a western rangeland pest; kudzu (*Pueraria lobata*), a perennial vine that infests southeastern states; oxeye daisy (*Chrysanthemum leucanthemum*), a rangeland perennial herb; and tall larkspur

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(*Delphinium* spp.) a native herbaceous forb that is the leading cause of cattle deaths on mountain rangeland.

- In Texas, the use of sheep and goats to control reemerging juniper after a burn has taken an aquifer recharge from zero gallons of water per acre to 100,500 gallons per acre.

In shrub-dominated watersheds and riparian areas, sheep grazing can be used to manage vegetation and decrease soil erosion. The animals' pointed hooves puncture the soil pan and increase the ability of seeds to germinate and grow, ultimately establishing a beneficial vegetation root base for better water penetration.

- In Idaho, the Fish & Wildlife Service rated herded sheep grazing as nine on a scale of one to 10, with 10 rated as "non-use."
- In Utah, the U.S. Forest Service effectively uses sheep grazing for riparian restoration and watershed recovery. By clearing brush, sheep grazing at low to moderate intensities promotes the growth of perennial grasses that enhance watersheds.

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