

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE SPECIFICATIONS**

**PRESCRIBED GRAZING**

(Acre)  
**CODE 528**

**Supplement No. 1 – Brush & Weed Pest Management with Goats**

**GENERAL SPECIFICATIONS**

Goats may be used to manage brush and noxious weed species such as oaks, salt cedar, sumac, winged elm, Canada thistle, knapweed, star thistle, and other species. Goats must be conditioned to eat target brush species.

For woody brush species goats may be used as initial treatment, or as a follow-up treatment to chaining, dozing, roller chopping, prescribed burning, or shredding. The use of goats is never the primary brush treatment unless the brush is already accessible for control by goats. If the brush is too tall for the goats, they will eat out the understory, leaving no forage for surface erosion management.

Control only the amount of area at one time that goats can be concentrated on for sufficient defoliation.

It may be necessary to broadcast a desirable seed mixture in those areas where desirable species make up less than 25 percent of the composition. Seed may be broad cast at a rate of 20 pure live seeds per square foot. Seed should be broadcast as goats are being grazed in the pasture. This allows the goats to prepare the seed bed, plant the seed via hoof action and fertilize the pasture all at the same time. See practice standards for range and pasture planting and/or ecological site descriptions and for appropriate seeding mixes.

The past browsing experience of the goats will influence their choice of forages. If the targeted species is a novel forage, there may be a conditioning period before the goats will consume the desired forage. Goats will also eat grasses and desirable forbs. Therefore, a rest-period is needed to achieve recovery of the desired plant community.

Pastures that are being goated for brush or pest management will not be grazed with other kinds of livestock until the next growing season.

**CONTINGENCY PLAN**

The grazing plans should also contain a contingency plan to adjust the stocking rates. This would include provisions for the goats during the “off season” when onsite forage is not available.

**MONITORING**

Develop appropriate records to measure progress toward goals. This could consist of canopy counts, goat days per acre, or other measures that will provide a trend analysis.

**CONSIDERATIONS**

The client may not want to eliminate the targeted plant from the pasture, particularly if goats are an economically beneficial enterprise. If the objectives of the goating are to browse at an intensity that will maintain the species for goats, then plan accordingly.

Conservation practice general specifications are reviewed periodically, and updated if needed. To obtain the current version, contact the Natural Resources Conservation Service.

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Removal of some woody species may adversely impact wildlife species. If wildlife is a consideration, the objective of goating should be to maintain the needed amount of brush for wildlife.

The following grazing plans are available to be used with goats to manage problem plants:

### Plant Reduction

#### 1. Priority Pasture Method

- Knock the target brush plants down to the goats' browsing level using mechanical, fire or other means if needed.
- Use two or more pastures (five preferred), designating one as the priority pasture. For brush species use high density grazing that will begin when the leaf of the target brush species is one half to two thirds full size in the spring. Use enough goats to achieve 80 percent defoliation within 7 to 14 days in the priority pasture. A suggested starting stocking rate would be to stock at 1 goat per acre in the priority pasture for each 1-3 percent of canopy cover. Rotate the goats through the remaining pastures to maintain nutrition until the priority pasture plants have re-grown to about half to two-thirds full size. This should take about 25-35 days. Pull the goats out of the rotation and put them back into the target pasture, again achieving 80 percent defoliation.
- Repeat this process until desired level of reduction has been achieved. Depending upon brush species and density, it may take three years to effect a favorable change.
- The priority pasture method can also be used for noxious weeds. Timing of when to graze a weed is important to making the biggest impact. The best time to graze most flowering weeds is right when it is in full bud before it flowers. At this time, the plant has put all of its energy into getting ready to make seed, so it has spent a lot of its root reserves. Graze deep rooted perennials three times a season or over three years in a

row, so that the target plant has used its root reserves and dies.

- Once the reduction has been achieved in the priority pasture, then another pasture can be designated as a priority pasture and the process applied accordingly.

#### 2. Thirty (30) days in and 30 days out or Two-pasture switchback method

The most effective control occurs when new brush species leaves and twigs are browsed in the initial stage of growth. Stock with enough goats to obtain at least 65 percent defoliation in approximately 30 days. After defoliation, rest the pasture for approximately 30 days. This system is a 30-day in and 30-day out grazing system, with goats, that results in a least 50 percent of the growing season rested each year. Alternate the starting pasture each year. A minimum of 3 years of goating is generally needed to obtain desired control. Calculate stocking rate the same as the Priority Pasture method.

### Sustainability

The following guidelines are to be used along with monitoring for self-evaluation and adjustment.

#### 1. Multi-pasture scenario

Utilize one herd of goats in three or more pastures, five or more being preferred. Introduce the goats in the early spring. Defoliate the key species of plants to about 25 percent of current growth, then rotate to the next pasture. Set the rest period so that the woody plants are not defoliated any more than twice per growing season. Select a suggested starting stocking rate of .25 goats for each one percent of woody cover unless a forage inventory – animal balance analysis suggests a different amount. Monitor the re-growth and goat performance. If excess use is being observed, adjust stocking rate accordingly.

#### 2. Thirty (30) days in and 30 days out or Two-pasture switchback method

Stock with enough goats to obtain about 20 percent defoliation in approximately 30 days. After defoliation, rest the pasture for approximately 30 days. This system is a 30-day in and 30-day out grazing system, with goats,

that results in at least 50 percent of the growing season rested each year. Alternate the starting pasture each year. Calculate the stocking rate as in the multi-pasture scenario.

Examples of Weeds Goats May Graze		
Canada Thistle	Common Mullein	Dalmatian Toad Flax
Knapweeds	Larkspur	Leafy Spurge
Loco Weed	Musk Thistle	Oxide Daisy
Poison Hemlock	Purple Loosestrife	Scotch Thistle
Yellow Star Thistle	Salt Cedar	Oaks
Lupine	Russian Olive	Canada Thistle