

SAGE GROUSE

Sage grouse historically occurred in at least 16 states and 3 provinces in western North America. In Colorado, they historically occurred in at least 23 and probably 27 counties. Currently, sage grouse occur in only 15 counties and populations are considered secure in only 5 counties. Two species of sage grouse are now recognized in Colorado, Centrocercus urophasianus and C. minimus. While populations of both species are declining throughout their range, the Gunnison's sage grouse (C. minimus) is most in need of conservation efforts. The Gunnison's sage grouse historically occurred throughout sagebrush steppe in southwestern Colorado, southeastern Utah, and northern New Mexico. Because of the conversion of sagebrush habitat by human actions, only a few remnant populations remain in highly fragmented and degraded habitats in southwestern Colorado and extreme southeastern Utah. Within Colorado, this species occurs in 5 isolated populations, and of these, the population in the Gunnison Basin is the only one that is relatively large and secure.

Both species of sage grouse are dependent upon sagebrush steppe and associated riparian habitats. Sagebrush leaves, primarily from subspecies of big sagebrush, comprise up to 99% of the sage grouse diet from November through March and are used to some extent, year around. Winter habitat is typically characterized by extensive, high canopy coverage stands of big sagebrush tall enough to be available in deep snow or shorter sagebrush on windswept ridges where snow blows clear. Understory vegetation is not critical in wintering areas. Nesting habitat is characterized by relatively high (20-30% or more) canopy coverage of big sagebrush, preferably with a good understory of tall (4-8 inches) grasses and forbs to conceal hens and their nests from predators. This intermix of forbs and grasses is also important for attracting and producing insects which young chicks need from hatching until early July. Later brood rearing habitat can contain considerably less sagebrush (10-15%), but should have a good mix of forbs (eaten by chicks) and grasses for concealment. In many parts of Colorado, late brood rearing occurs along riparian corridors associated with irrigated hay meadows where these are adjacent to sagebrush rangelands.

Practices designed to benefit sage grouse should not be implemented without consideration of what appears to be limiting to sage grouse in the local area, as well as distance from occupied leks. Use of brush beating or herbicides to reduce sagebrush canopy and improve the grass and forb understory will negatively impact sage grouse if done in primary wintering or nesting areas. Conversely, use of these practices more than a few kilometers from an active lek will be a waste of time because hens with broods won't get there. Sage grouse plans should explicitly identify locations of critical habitats and how the proposed practice(s) relate to these habitats. NRCS biologists or Division of Wildlife biologists or District Wildlife Managers should be involved in plan development.

The following guidelines may be used when writing specifications for wildlife practices for sage grouse in Colorado. These are guidelines only. They may need to be adapted to individual situations and site requirements.

BRUSH MANAGEMENT

Follow NRCS Practice Standard 645, Wildlife Upland Habitat Management, and 314, Brush Management according to the guidelines found below. The objective of brush management when sage grouse are the target species is to improve brood rearing and nesting habitat. This is accomplished by reducing sagebrush canopy coverage in order to improve grass and forb understory in sagebrush rangelands. This practice will decrease the age and height of brush on treated sites. Treatment may be either by mechanical or chemical methods. Evaluate the effect on desirable forbs when planning chemical treatment.

Guidelines:

- Apply this practice guideline to sagebrush rangelands where sage grouse are known to occur-primarily in Dolores, San Miguel, Gunnison, Saguache, Montezuma, Montrose, Delta, Mesa, Garfield, Rio Blanco, Routt, Eagle, Grand, Jackson, and Moffat Counties.
- Treated sites should be within 2-4 miles of an active lek.
- Apply only on sites where sagebrush canopy coverage exceeds 20% and sagebrush is decadent.
- Treat strips not wider than 100 yards leaving untreated strips at least 100 yards wide on both sides of the treated strip.
- Treated areas will not exceed 30-40% of all sagebrush in the area.
- Treated sites must be at least 0.5 miles from occupied dwellings.
- Grazing of treated areas must be deferred during the first growing season following treatment. Prescribed Grazing may be applied in following years.
- When mechanical methods (e.g. brush beating) are used, treatment will not exceed once per site every 10-15 years.
- When chemical treatment is used, the goal is to achieve a persistent thinning effect on big sagebrush. Specifically, a long-term, 50-75% reduction in canopy cover is needed for maintenance of brood rearing and nesting habitat. Consult a licensed pesticide professional for herbicide recommendations. Type and amount of chemical to be applied must be according to all pesticide laws.

PIÑON-JUNIPER REMOVAL

Follow NRCS Practice Standard 645, Wildlife Upland Habitat Management, and 314, Brush Management according to the guidelines found below. The objectives of piñon-juniper removal from sagebrush rangelands (brush management) when sage grouse are the target species are to remove perches and cover for predators, thus improving survival and distribution of sage grouse, and to improve brood habitat and nest success by increasing grass and forb growth.

Guidelines:

- Apply this practice guideline to sagebrush rangelands where sage grouse are known to occur-primarily in Dolores, San Miguel, Gunnison, Saguache, Montezuma, Montrose, Delta, Mesa, Garfield, Rio Blanco, Routt, Eagle, Grand, Jackson, and Moffat Counties.
- Remove all piñon-juniper less than 60 years of age in sagebrush rangelands.
- Apply only to areas with more than 5 piñon pine or juniper trees per acre within 2 miles of active sage grouse lek sites, or corridor areas between seasonal habitats of sage grouse.
- Treated area must be at least 0.5 miles from occupied dwellings.

PRESCRIBED GRAZING

Follow NRCS Practice Standards 645, Wildlife Upland Habitat Management, and 528A, Prescribed Grazing according to the guidelines found below. The objectives of prescribed grazing for sage grouse are to completely rest pastures from livestock grazing once every 3-4 years and to give adequate recovery periods to the vegetation following each grazing occurrence when grazing is conducted. This will improve nest success and brood survival by increasing the amount and height of residual vegetation in sage grouse nesting and early brood rearing areas. When these standards are applied for sage grouse, the following guidelines may be used.

Guidelines:

- Apply this practice guideline to sagebrush rangelands where sage grouse are known to occur primarily in Dolores, San Miguel, Gunnison, Saguache, Montezuma, Montrose, Delta, Mesa, Garfield, Rio Blanco, Routt, Eagle, Grand, Jackson, and Moffat Counties.
- Areas must be within 2 miles of an active sage grouse lek.
- No livestock will be grazed for the agreed-to term (e.g. total rest for one year out of 3 or 4 years).
- Minimum size of area is 60 acres.
- Areas must be at least 0.5 miles from occupied dwellings.

SPRING DEVELOPMENT AND PROTECTION

Follow NRCS Practice Standards 645, Wildlife Upland Habitat Management, and 574, Spring Development according to the guidelines found below. The objectives of spring development for sage grouse are to improve sage grouse brood habitat by restoring wet meadow vegetation to spring areas and to increase growth of forbs and grasses. This can be accomplished by excluding livestock from the spring area and piping water to a tank away from the spring. When these standards are applied for sage grouse, the following guidelines may be used.

Guidelines:

- Apply this practice guideline to sagebrush rangelands where sage grouse are known to occur-primarily in Dolores, San Miguel, Gunnison, Saguache, Montezuma, Montrose, Delta, Mesa, Garfield, Rio Blanco, Routt, Eagle, Grand, Jackson, and Moffat Counties.
- Areas must be within 4 miles of sage grouse leks.
- Areas must be at least 0.5 miles from occupied dwellings.

RESTORATION OF CONVERTED SAGEBRUSH STANDS

Follow NRCS Practice Standards 645, Wildlife Upland Habitat Management, and 550, Range Seeding according to the guidelines found below. When these practices are applied for sage grouse, the goal is to increase sage grouse distribution and abundance by increasing the amount of usable winter, nesting, or brood-rearing habitat. The following guidelines should be followed for sage grouse.

Guidelines:

- Apply this practice guideline to sagebrush rangelands where sage grouse are known to occur-primarily in Dolores, San Miguel, Gunnison, Saguache, Montezuma, Montrose, Delta, Mesa, Garfield, Rio Blanco, Routt, Eagle, Grand, Jackson, and Moffat Counties. Also, any areas historically occupied by sage grouse and identified as priority areas for reintroduction by the Colorado Division of Wildlife.
- Areas must be within 5 miles of an active lek site and within 1/2 mile of an existing sagebrush stand of at least 40 acres.
- Treated areas should be 20 acres or larger in size.
- Areas must be at least 0.5 miles from occupied dwellings.
- Defer grazing on revegetated site for 5 years.

FENCING RIPARIAN AREAS

Follow NRCS Practice Standards 645, Wildlife Upland Habitat Management, and 382, Fencing according to the guidelines found below. The objective of fencing riparian zones when sage grouse are the target species is to increase chick survival by enhancing food and cover in sage grouse brood rearing areas. The following guidelines may be followed for sage grouse.

Guidelines:

- Apply this practice guideline to grazed riparian areas within 4 miles of occupied sage grouse leks in Dolores, San Miguel, Gunnison, Saguache, Montezuma, Montrose, Delta, Mesa, Garfield, Rio Blanco, Routt, Eagle, Grand, Jackson, and Moffat Counties.
- The area to be fenced should be contiguous with sagebrush rangeland at some point.
- Livestock will be excluded from streams and/or associated woody and herbaceous vegetation.
- Livestock water will be developed outside the protected area using either water tanks or water gaps (must be at least 300 feet apart). If water gaps are used, stream must be stable and hardened access is required.