

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**EARLY SUCCESSIONAL HABITAT DEVELOPMENT/MANAGEMENT**

(Ac.)

CODE 647

**DEFINITION**

Manage early plant succession to benefit desired wildlife or natural communities.

**PURPOSE**

Increase plant community diversity to provide habitat for early successional species.

**CONDITIONS WHERE PRACTICE APPLIES**

On all lands that are suitable for the kinds of desired wildlife and plant species.

This practice does not apply on native prairie areas or other communities where the purpose is to mimic the natural disturbances and disturbance regimes needed to maintain or restore natural plant community composition and characteristics.

**CRITERIA**

Identify the wildlife species and the required early successional habitat that is to be provided by implementing this practice, using form SD-CPA-26, Wildlife Habitat Management.

Management will be designed to achieve the desired early successional plant community in density, vertical and horizontal structure, and plant species diversity.

Where planting is required, native regionally adapted plant materials will be used whenever possible.

Measures must be provided to control noxious weeds and other invasive species. To benefit insect food sources for grassland nesting birds, spraying or other control of noxious

weeds will be done on a "spot" basis to protect grasses, forbs and legumes that benefit native pollinators and other wildlife.

Without periodic disturbance, herbaceous plant communities begin to deteriorate. Typical signs of a deteriorating plant community are excessive accumulation of plant residues, reduced plant vigor, lack of seed heads, and invading species or shifting plant community composition. Excess accumulation of plant litter is a common problem with seeded herbaceous cover. Another common problem is invasion of the plant community with smooth brome grass, Kentucky bluegrass, cheatgrass, and others.

**Management Techniques**

Where disturbance by fire or grazing is not possible, clipping and removal of residues may be used instead to mimic the natural disturbance regime. Management shall be timed to avoid the primary nesting season, which is April 15 through August 1, if possible. If management can be completed prior to August 15, some fall regrowth may occur to provide winter habitat.

Management to address plant community composition must be timed to adversely impact the growth of problem plants and enhance the development of the desired plant species. This level of management may require disturbance during the primary nesting season.

Management of grassland habitats should be scheduled when litter buildup and/or plant community composition shift is causing a loss of habitat. This may be documented by tracking the visual obstruction readings for the site, with annual readings documented using form SD-CPA-57, Visual Obstruction Readings for Herbaceous Wildlife Habitat. Management

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service [State Office](#), or visit the [electronic Field Office Technical Guide](#).

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should be scheduled when the average visual obstruction reading for the field has dropped below the minimum height required as herbaceous habitat for the species identified on the SD-CPA-26.

Burning shall not be used to manage fire sensitive communities such as sagebrush grasslands or sagebrush steppe.

Habitat management for fully established herbaceous habitat in Major Land Resource Areas (MLRA) 102A, 102B, 102C, and 56 typically consists of letting the grass stand grow for approximately four to five years without use, and then using grazing, burning, or clipping and removal of residues to eliminate plant litter buildup or adjust for other identified problems with plant community characteristics or composition. Longer or shorter periods may be appropriate in some cases, depending on the particular problems at the site and the wildlife species using the habitat. The timing and choice of treatment methods will be fully documented on form SD-CPA-58, Upland Wildlife Habitat Management, including the wildlife species of concern, the precise habitat conditions and problems, the expected impacts on the desired wildlife species and other species of concern, and how adverse impacts will be avoided or minimized.

Habitat management for fully established grasslands in MLRA's 53B, 53C, 54, 55B, 55C, 58D, 60A, 61, 63A, 63B, 64, 65, and 66 typically consists of allowing the vegetation to grow for 5 to 7 years without use. After that period, use grazing, burning, or clipping and removal of residues to eliminate the buildup of plant litter or adjust for other identified problems with plant community characteristics or composition. Longer or shorter periods may be appropriate in some cases, depending on the particular problems at the site and the wildlife species using the habitat. The timing and choice of treatment methods will be fully documented on form SD-CPA-58, including the wildlife species of concern, the precise habitat conditions and problems, the expected impacts on the desired wildlife species and other species of concern, and how adverse impacts will be avoided or minimized.

## **Grazing**

Grazing will be planned to address the precise plant community problems at the site. Timing, duration, and intensity of grazing will all be considered in determining the appropriate means to address the site specific plant community problem.

**High intensity – short duration graze:** Used to remove litter and target the grazing impact on a particular plant species and release nutrients for the desired plant species.

**Average intensity – short duration graze:** Used to remove litter where there is no need to alter the plant community.

**Low intensity – long duration graze:** Remove litter and leave a mosaic of varied plant heights.

## **Prescribed burning**

Prescribed burning is usually planned for spring dates and will often result in loss of early season nesting cover values. Any prescribed burn will be accomplished according to the conservation practice Prescribed Burning (338).

**Spring burns prior to May 1:** Reduce excess litter and remove early cool-season invading plants, such as cheatgrass.

**Spring burns May 1 to May 20:** Help reduce the invasion of Kentucky bluegrass and smooth brome grass.

## **Criteria for disking to create early successional communities**

Disking shall only be used on tame grass and forb plant communities, such as intermediate wheatgrass and alfalfa, where there is no prior history of noxious weed infestation and the primary problem is the reduction of forb cover in the plant community.

Disking shall be done in a manner to avoid causing soil erosion due to wind or water, such as by disking on the contour and avoiding sensitive areas such as waterways, sandy soils, or sites with only sparse stands of vegetation.

Depth of disturbance, the number of passes, and timing shall be specified according to the

individual site conditions, including the plant species present, the density of the existing plant community, the quantity of litter present, the management regime that will be used on the site, and the desired early successional species. Normally, a single pass is sufficient to stimulate desirable forbs that are present in the plant community and seed bank.

#### **Criteria for establishing annual food plots as early successional habitat**

Select food plot species to be established from lists of species known to be used and preferred as food sources by the species identified on the SD-CPA-26 for this practice.

Food plots of annual species will be established annually and maintained during the planned period of use. Food plots shall be established in non-erosive areas to avoid creating problems with wind or water erosion.

Noxious weeds will be controlled within food plots.

#### **Criteria for establishing perennial food plots**

Select perennial food plot species to be established from lists of species known to be used and preferred by the wildlife species identified on the SD-CPA-26 for this practice.

Food plots of perennial species shall be replaced if the stand is no longer self-sustaining.

### **CONSIDERATIONS**

Vegetative manipulation to maximize plant and animal diversity can be accomplished by disturbance practices including: selected herbicide techniques, brush management, prescribed burning, light disking, mowing, prescribed grazing, or a combination of these.

This practice should be applied periodically to maintain the desired early successional plant community and rotated throughout the managed area.

Wildlife habitat purposes often require lighter seeding rates than specified for soil erosion.

Managing for early successional plant communities is beneficial if not essential for

less mobile animal species. The less mobile the species, the more important it is to provide all the habitat requirements in a small area.

Design and install the treatment layout to best facilitate operation of all machinery used to make easily controlled burning boundaries. Whenever possible, lay out strips to have some multiple or full width passes by all farm implements.

Prescribed grazing may be used as a management tool to achieve the intended purpose of this practice.

Management practices and activities should not disturb cover during the primary nesting period for grassland species. Exceptions can be allowed for periodic burning, light disking, selected herbicide techniques, selected mechanical removal or mowing when necessary to maintain the health of the plant community. Mowing may be needed during the plant establishment period to control weeds and growth of woody vegetation.

### **PLANS AND SPECIFICATIONS**

Specifications for this practice shall be prepared for each site. Specifications shall be recorded using approved specifications sheets and job sheets. Narrative statements in the conservation plan or other acceptable documentation can supplement specifications or job sheets. Specifications shall be reviewed and approved by a Natural Resources Conservation Service (NRCS) biologist. Approval by state wildlife agency or other biologist can occur when directed by NRCS state biologist.

### **OPERATION AND MAINTENANCE**

The following actions shall be carried out to insure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation), and repair and upkeep of the practice (maintenance).

Periodic disturbance will be incorporated into the management plan to ensure the intended purpose of this practice.

Any use of fertilizers, pesticides and other chemicals to assure early successional management shall not compromise the intended purpose.

## REFERENCES

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