

**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.

**CRITERIA**

Management will be designed to achieve the desired 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.

Management practices and activities will not disturb cover during the primary nesting period for grassland species (April 15 – August 1). 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 undesirable weeds and growth of woody vegetation.

Vegetative manipulation to maximize plant and animal diversity can be accomplished by disturbance practices including: light disking, selected herbicide techniques, mowing, prescribed burning, prescribed grazing, woodland edge feathering or a combination of these. Additional criteria for specific disturbance practices applied for the purpose of Early Successional Habitat Development /management are:

Strip Disking - Light disking strips of existing grass stands, typically greater than 4 years old, may be required to increase the amount of open ground and encourage annuals (foxtails, crabgrasses, ragweeds). The result will be a diverse plant community of both annuals and perennials.

- Disk strips 2-4 inches deep to expose approximately 50% bare ground after disking.
- Disk between October 1 and April 15.
- Alternate disked strips of 75 feet or less in width, with undisturbed strips a minimum of 2 times the disked width, across the field on the contour or across slope.
- Rotate disked and undisked strips on a 3 year or longer rotation.
- Disked strips shall not to exceed the tolerable soil loss.

Herbicide Techniques - Selected herbicides can be used to effectively manipulate plant succession, control brush, reduce plant

competition, control exotic weeds, and improve habitat diversity.

- Careful planning and care in application are required in the use of herbicides to improve existing habitat. Selection of a product shall be based on several factors, including: (a) product effectiveness, (b) non-target species impacts, (c) toxicological risks, and d) off-site movements of chemicals.
- Herbicides are to be applied only for the uses listed on the container label. Follow all directions and precautions. See practice standard Pest Management (595) for recommendations and precautions.

Mowing – Mowing will only be used where other management techniques are not feasible.

- Mowing shall be applied in the spring prior to the nesting season (April 15) or in August.
- Mow no more than 50% of the stand in any given year.
- Mow in strips to maintain cover. Rotate mowed strips across the field from year to year.
- Minimum standing strip width shall be 30 feet. Strips 30 to 100 feet wide, or wider, are preferred for wildlife escape cover.
- To control woody vegetation, mow cool season grasses no shorter than 6". Native warm season grasses should be mowed no shorter than 8 inches.
- Residues from mowing shall be thoroughly shredded and evenly distributed to prevent excess litter accumulation.

Prescribed Burning – Burning may be required to remove excess litter, stimulate germination of seed bearing annuals, increase plant species diversity, control unwanted woody and herbaceous vegetation, and open up the stand for movement of small animals and birds.

- Prescribed Burning can only be planned by qualified personnel according to criteria in the Prescribed Burning (338) standard.
- Frequency of burning will not exceed once every third year.

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- Burn no more than one third of the area in any one year. However, exceptions can be made to burn up to 50 percent of an area in cases of small fields, and when weather conditions have prevented burning in previous years.

Prescribed Grazing - Domestic livestock may be used to manipulate plant succession. This technique requires very careful management to assure the site is not over grazed.

- A grazing plan (meeting criteria in practice standard Prescribed Grazing (528A)) will be developed for the intended purpose of the practice.

Woodland Edge Feathering - Woodland edges can be managed for early successional habitat through vegetation manipulation.

- Thin overstory trees by removing or killing trees (greater than 2 inches) in the first 30 to 90 feet of the woodland. Allow fruit bearing shrubs, vines, and small trees to grow.
- To develop early successional habitat in the adjacent field, allow natural revegetation of shrubs, brambles, grasses and forbs within 30 feet of the woodland. Protect this area from disturbance.
- When trees in the woodland edge become large enough to shade more than 60 percent of the area, reapply the practice.
- See Woodland Edge Feathering Job Sheet 645D for more information and specifications.

## CONSIDERATIONS

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

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.

Consider operation of machinery used on the site in the layout and design of firebreaks.

Whenever possible, lay out strips to have some multiple or full width passes by all farm implements.

### **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. NRCS staff is encouraged to work closely with the NRCS Biologist, IDNR Biologist, or US Fish and Wildlife Service Biologist in developing site specific plans and specifications.

### **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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