Early Successional Habitat Development/Management

Grassland Management for Wildlife (non-hayland)

Conservation Practice WV Job Sheet ***Code 647***

Definition

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

Purpose

The purpose of this practice is to increase plant diversity and provide wildlife habitat for those species of wildlife that benefit from early successional vegetation and the insects that these communities attract. Many wildlife species that depend on these types of plant communities are declining nationwide.

Conditions Where Practice Applies

Information in this job sheet pertains to management of grasslands for wildlife. Early successional habitat development/management is normally established concurrently with other practices as part of a wildlife habitat resource management system.

This job sheet is intended for grasslands that are not utilized as hay or pasture. For lands that are utilized for hay, refer to (511) Forage Harvest Management. For lands that are utilized for pasture, refer to (528) Prescribed Grazing and their associated job sheets for strategies that include wildlife as an objective.

Considerations for Establishment

The timing and intensity of harvesting grass is probably the most critical of all the factors that can affect the value of grasslands for wildlife. Most wildlife species benefit from various successional vegetative conditions other than the climax stage. To achieve the proper vegetative stage, it is essential to understand the daily and seasonal requirements of the wildlife species prior to the implementing these techniques. Refer to the NRCS conservation WV Wildlife Habitat Evaluation Technique for more information regarding the daily and seasonal habitat requirements for various species of wildlife.

The design and installation of the treatment layout should be planned to best facilitate operation of machinery or grazing. For example, grass strips should be laid out to accommodate single or multiple full width passes by farm equipment.

Grasslands require periodic disturbance to remain as grasslands and to keep them vigorous. Apply the strategies listed below to develop and maintain grassland habitats in open meadows, odd areas, forested transition areas or similar settings. Early successional grassland habitats may be created and maintained by one or more of the methods described below.

Mowing (non-hay producing grasslands)

Used alone or in combination with the other techniques such as strip disking, mowing can successfully manipulate vegetative succession. Some general guidelines are:

If possible, mow no more than 1/3 of an entire grassland stand in any given year. This can be done by mowing

only 1/3 of a single field; or no more than 1/3 of the entire acreage of a stand in a year (See Figure 1).

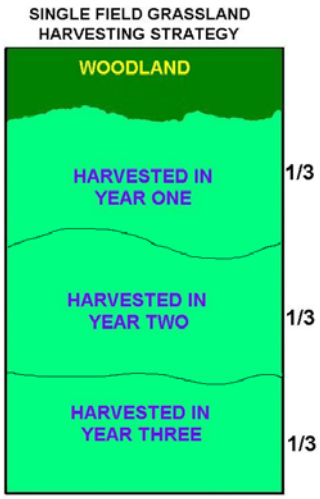

Figure 1. *This figure illustrates harvesting 1/3 of a single field per year. Grassland may be harvested either by haying, mowing or other suitable methods.*

Mowing should occur in 2-4 year cycles with field(s) or portions of a field(s) to remain undisturbed for a period of time (fallow). A longer rotation yields greater diversity in composition and structure. However, rotation cycles that are 5 years or longer may allow significant woody invasion to occur in some instances.

Where feasible utilize a strip mowing method (See Figure 2). Mow in strips of 35-100 feet wide avoiding more narrow strips that can lead to increased predation of desirable wildlife. Each strip may have variable widths.

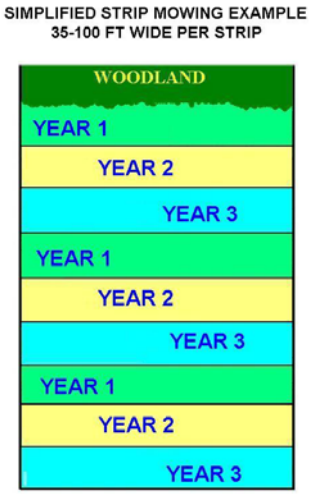

Figure 2. *A simplified 3 year strip mowing cycle. Each year approximately one-third of the grassland in the field is cut and diversity of height is created throughout the field. Although this figure illustrates a straight mowing pattern, it is desirable and beneficial for strips to be irregularly shaped with varying widths.*

Rotate mowed strips across and/or throughout the field and along the natural contour of the land. It is desirable and beneficial if the strips are irregular in shape.

Initially, it is helpful to mark the strips in the field with stakes or flags to identify the desired mowing pattern.

Mow cool season grasses no shorter than 4 inches.

Tall fescue has very little wildlife benefit and should be replaced with a more beneficial species where feasible.

When possible, mowing should be performed in the spring or late summer outside the primary nesting season (April 15 – July 15). However, certain types of species management may require mowing during the primary nesting season.

Chemicals

Herbicides can be effectively used to manipulate succession, control noxious or invasive weeds, reduce competition and improve overall diversity. However, this method should only be utilized on a limited basis.

Careful planning and application are required in the use of herbicides to improve existing habitat. Selection of a product should be based on several factors including: desired effect to the vegetative community, impacts to non-target wildlife specie(s), toxicological risks and off-site movement.

Chemicals must only be applied for the uses listed on the label. All manufacturers' recommendations, precautions and directions must be followed. Consult WV University Extension Service personnel for herbicide recommendations. A pesticide applicators license may be required for some herbicides.

Herbicide application may be appropriate for removal of existing stands of tall fescue to eliminate it and re-establish a more suitable cover.

When utilizing long rotational mowing or grazing cycles, it is possible that some grasslands may start to develop brush and woody vegetation. A herbicide may be spot sprayed to eliminate undesirable vegetation.

Operation and Maintenance

Grasslands are dynamic communities that require frequent disturbance to maintain the desired composition. An extended mowing, harvest or grazing schedule is required beyond the installation period.

To maintain the health and vigor of grasslands it may require the periodic application of lime and/or fertilizer. This should be done according to recommendations from a soil test that is performed on a regular basis. Nutrients should be applied outside the primary ground nesting season (March 15 – July 15).

For grazing systems an individual grazing management plan with wildlife as a priority objective is required. Additional practices such as fencing and water developments may also be necessary.

Specifications

Site-specific requirements are listed on the following pages of this job sheet. Specifications are prepared in accordance with the WV NRCS Field Office Technical Guide.

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Client:	**Farm #:**
Field(s):	**Tract #:**
Designed By:	**Date:**
Targeted Wildlife Specie(s):	

Purpose (check all that apply)	
☐ Create or maintain habitat for grassland and ground nesting songbirds or pollinators	☐ Develop a mowing plan with wildlife as the primary resource concern
☐ This grassland management scheme also requires strip disking? Refer to the strip disking job sheet for more information.	☐ Component of a wildlife management plan developed using the (645) Upland Wildlife Habitat Management standard

Layout		
Total acreage of grassland:	Total number of fields:	If only one field occurs, into how many portions will this field be divided?

Grassland Species Composition: List the dominant grass and/or legume specie(s) within the field or portion of the field to be managed. Also, identify any species that are to be planted (P).

Field _____	**Field _____**	**Field _____**	**Field _____**	**Field _____**	**Field _____**

Field No.	**Method** [1]	**Management Schedule** [2]				**Strip Mowing Management** [3]				
		Application Date(s)	**Min. Height** (in)	**Fallow Date(s)**	**Nut. Man. Date(s)**	**Strip Width** (ft)	**Rot. Length** (yrs)	**Strips mowed** (per yr)	**Mowing Height** (in)	**Total Strips**

[1] **Method**: Select **Mowing** or **Brushog, Chemical, or Other.** [For grazing strategies with wildlife as an objective, refer to the WV Conservation Practice Standard (528) Prescribed Grazing and grazing plan with associated component practices for additional information. For management on hayland refer to the NRCS conservation practice standard (511) Forage Harvest Management.]

[2] **Management Schedule**: Under the appropriate column list the period(s) that this field or portion of a field is to be mowed or rotary brush cut including the schedule for nutrient application and period the field(s) are to remain fallow. Identify the minimum desired minimum height of the grass after cutting. Where possible avoid management during the peak of ground nesting season (March 15-July 15).

[3] **Strip Mowing Management**: List the number of strips to be mown in a given field or portion of a field and the frequency that they are to be cut including the width. Strips should be cut at least annually and on a rotational basis. (For example: 6 strips on a 3 year rotation would require harvesting 2 different strips annually.)

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If needed, an aerial view, map or a sketch of the practice can be shown below. Other relevant information, complementary practices and measures, and additional specifications may be included.

Refer to the conservation plan map for locations of practices.

Additional Specifications and Notes: (i.e. herbicide application, operation and maintenance specifics, etc.)

maintain this practice as indicated in the section entitled "Operation and Maintenance".

Questions regarding the operation, harvest schedule or establishment of this practice should be directed to:

_____ **at** _____

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