

Forest Stand Improvement

Edge Feathering/Cutback Borders for Wildlife

Conservation Practice Job Sheet

Code 666



Purpose

This job sheet will help you design cutback borders that provide early successional wildlife habitat.

Edge feathering, sometimes referred to as a “cutback border,” is implemented to create structure, cover and food resources for wildlife that depend on brushy habitats, such as bobwhite quail, ruffed grouse, fox, rabbits, many songbirds and small mammals. These areas can increase the availability of foods and provide critical winter, escape and nesting cover for a variety of wildlife.

Cutback borders consist of small trees, shrubs and some herbaceous plants. They are more effective and provide more environmental benefits when established around an entire field and where woodland abruptly stops and another habitat type begins. Plants that grow in this zone attract insects and can serve as food sources for wildlife and create a “softer” edge and better transition from woodland to open areas.

These types of areas are normally established as part of an overall conservation management system to address a suite of wildlife habitat concerns.

Considerations for Establishment

As the term implies, cutback borders are usually created by felling trees with a chainsaw. Other methods include removing selected trees with a basal application of herbicide or using heavy equipment to remove the trees from the field edge.

This practice is particularly useful when “daylighting” the habitat surrounding narrow forest trails or harvest roads and existing log landings.

Some general guidelines apply to implementing this practice:

- Establish these borders along woodland edges, by cutting the forest edges back to encourage growth of shrubs and tree seedlings and saplings. This creates a “softer” edge and better transition zone from more open areas to woodland. This method is effective in forested areas adjacent to patch clearcuts, logging roads and landings or similar woodland settings.
- **Important** - To avoid impacts to the federally endangered Indiana bat, any tree removal must occur between November 15th and March 31st. However, trees with a diameter at breast height (DBH) of less than 5 inches may be removed anytime during the year. Trees that have shaggy bark such as shell or shagbark hickories and white oak species; dead and dying trees with exfoliating bark, broken tree tops, splintered or split areas; or trees with cavities or hollowed areas cannot be removed. Trees may be deadened (girdled or spot herbicide applied) at anytime through the year
- Leaving cut slash and woody material on the ground along the border edge provides additional wildlife cover and to some degree may deter browsing of new sprouts by deer.
- Cutback borders should be at least 30 feet wide and extend along as much of a field edge as possible. The width of the border can vary throughout its length and not be uniform. The width may be increased depending on management goals and objectives. Generally, the wider the area the better the habitat and softer the transition it provides. Narrow borders are susceptible to heavy predation on animals that inhabit these transition areas.
- The borders may be established at different times throughout the property; or a portion of a field’s edge may be established each year to provide diversity in stages of regrowth.

- When cutting borders, leave trees or shrubs of special wildlife benefit. Species such as dogwoods, viburnums and serviceberry are examples of species that could be retained.



Cutback borders create a “softer” edge and better transition zone from open areas to woodland. This method is effective in forested settings adjacent to patch clearcuts, logging roads and landings or other openings where wildlife habitat is a concern.

- Some important considerations on how these areas will re-establish once cut are: the amount of sunlight received each day, the seed source available, climate, aspect and the existing vegetation.
- Herbicides may also be used to feather edges. Herbicides used for establishment purposes and for control of noxious or invasive species must be used in accordance with all labels and precautions. Consult the KY Department of Fish and Wildlife (KDFWR) biologists and/or the KY Division of Forestry for herbicides suitable for this purpose.

Installation Methods

Cutback borders may be established several different ways. Three different ways are described below.

A. Single Tier Method - The simplest method is to cut all woody stems within a designated width and length and allow natural revegetation to establish the desired community. A few trees or shrubs that provide special sources of food or cover may be left standing within the border. Species such as dogwoods, conifers, certain oaks, viburnums and serviceberry are a few examples.

B. Triple Tier Method - The following guide produces a tiered or layered result:

1. Cut all plants in the first 10 feet (minimum) of the border that are greater than 1 inch DBH. For wildlife benefits, the slash may be piled but could be left where cut. If windrowed brush piles are desired, refer to the guidance in the habitat-how-to's at: <http://fw.ky.gov/howto.asp>

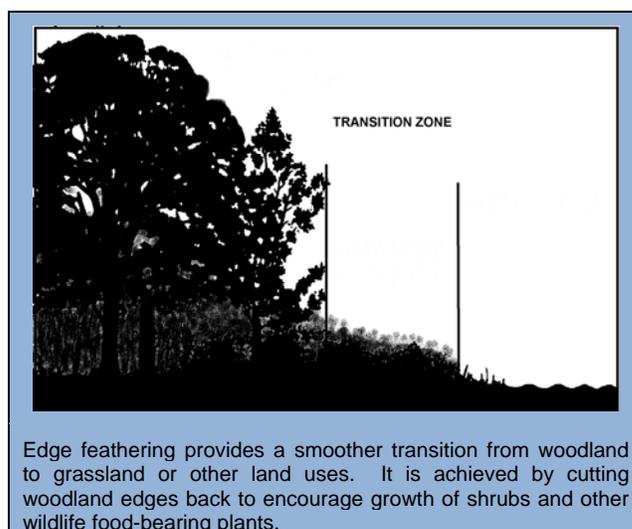
2. Within the next 10 feet (minimum) cut (and pile if desired) trees over 2-3 inches DBH.
3. The next 10 feet (minimum) cut and remove all trees and shrubs over 4 inches DBH. Unless the tree or shrub is producing a desired kind of food.

C. Selective Tier Method - Another method of obtaining a high quality “tiered” cutback border is to cut all trees in a selected strip that are of a height that if felled in the direction of an adjacent field would extend beyond the edge. This method results in cutting progressively larger trees as you move from the field into the woodland.

Operation and Maintenance

During each growing season inspect the areas to ensure that the desired community is being established. Monitor and control any invasive plants. Observe proper safety when felling trees and using equipment.

The ideal border will appear unkempt and be composed of a variety of shrubby and a few herbaceous plant species. After several growing seasons, these areas may mature to the point of losing effectiveness and pruning or thinning may be required. When re-establishment eventually becomes necessary, not more than 50% of all border habitats should be disturbed in any one year. In addition, never disturb the entire border habitat around a single field in the same year. Tree removal for maintenance should occur between November 15th and March 31st.



Edge feathering provides a smoother transition from woodland to grassland or other land uses. It is achieved by cutting woodland edges back to encourage growth of shrubs and other wildlife food-bearing plants.

Specifications

666 Forest Stand Improvement - Job Sheet

Site-specific requirements are listed on the specifications sheet. Additional provisions may be entered on the job sketch sheet. Specifications are prepared in accordance with the KY NRCS Field Office Technical Guide and the (666) Forest Stand Improvement conservation practice standard.

Client:	Farm #:
Field(s):	Tract #:
Designed By:	Date:
Target specie(s):	

Purpose (check all that apply)	
<input type="checkbox"/> Provide early successional food and cover for wildlife	<input type="checkbox"/> Planned in conjunction with a timber harvest
<input type="checkbox"/> Planned in association with the construction of brush piles or patch clearcuts (Refer to http://fw.ky.gov/howto.asp)	<input type="checkbox"/> A component practice associated with a wildlife management plan

Planned Area (check all that apply)	
<input type="checkbox"/> Adjacent to woodland roads , trails or log landings	<input type="checkbox"/> Adjacent to pasture, hay fields or other grasslands
<input type="checkbox"/> Adjacent to annually cropped fields	<input type="checkbox"/> Other (specify) _____

Layout	Border #1	Border #2	Border #3	Border #4
Field Number				
Date Planned				
Width (ft) – minimum 30'				
Length - along edge of field (ft)				
Total Area (ac)				
Method of Establishment ¹				
Installation Method ²				
Tier width (if applicable) ³				
Retained Species ⁴				

¹ Identify how the practice will be established: **Mechanical** (chainsaw, heavy equipment, etc.) or **Chemical** (herbicide application).

² List the method used to install the border. Methods are: **Single Tier Method**, **Triple Tier Method**, or **Selective Tier Method**; and are found under the section of this document entitled *Installation Methods*.

³ **Optional** - If using a triple tiered method you may specify the tier width (e.g. 10/20/30 ft). You may also specify in the Additional Notes section of this document.

⁴ List any existing desirable species to retain during establishment of the border. If none, list as **N/A**.

666 Forest Stand Improvement - Job Sheet

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

Operation, Maintenance and Additional Specifications:

Maintain original width and length of the border(s). Inspect it periodically for invasion of noxious plant species and control as necessary by mechanical removal or herbicide application. Once the border is fully mature or the transition zone becomes abrupt, it may be necessary to maintain or re-establish the border. As a general rule, when the trees and shrubs in at least 50 percent of the border exceed 20 feet in height, the cutting and removal process should be repeated. Do not disturb more than 50% of all border habitats in any one year. Do not disturb the entire border habitat around a single field in the same year. Tree removal for maintenance should occur between November 15th and March 31st.

Additional Notes:

For information concerning the establishment or maintenance of this practice contact:

_____ at _____

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication program information (Braille, large print, audiotape, etc.) should contact the USDA Office of Communications (202) 720-2791. To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.