

Hedgerow Planting for Wildlife & Pollinators

Conservation Practice Job Sheet

Code 422



Purpose

This job sheet pertains to the establishment of hedgerows to provide food, cover and corridors for wildlife.

Hedgerows for Terrestrial Wildlife

Hedgerows provide multiple benefits. In open land they increase the “edge effect”, which is important to many species of wildlife. Hedgerows serve as a source of food and cover for wildlife, depending upon the variety of vegetation planted. They also provide corridors or screened travel lanes through which wildlife can move safely from one area to another. Therefore, linking fragmented habitats with hedgerows may greatly increase the use of an area by wildlife.

Hedgerows provide desirable escape, refuge, and travel lanes for many songbirds and game birds and mammals. Low, woody vegetation can be planted along fence rows, in gullies, and along streams or around ponds, springs, food patches, nesting grounds, and breeding grounds.

Fencerows with vegetation more than 6 feet high may cause reduction in the yield of adjacent cultivated crops. However, well managed hedgerows less than six feet high have little or no adverse effect on adjacent crops. In cropland settings, the roots of hedgerow plants can be confined by digging a trench alongside the row. Some other advantages include a change in the local microclimate resulting in increased soil moisture, and decreased evaporation. Water runoff is slowed, and soil loss is reduced. Hedgerows may also serve as windbreaks.

Very few insects harmful to grain and forage crops occur on woody vegetation. Many beneficial insects, however, do frequent such areas. Breeding bird populations in crop field borders containing woody vegetation greatly exceed those of borders composed of herbaceous plants. Several hedge species are sources of pollen for bees, and provide nesting places for bumble bees. Some species of plants may provide nesting sites for wood nesting bees.

Site preparation consists of reducing existing competition by herbicide application, plowing, contour furrowing, or scalping or a combination. Planting can be done by hand or with a mechanical planter depending upon the size of the project. Multiple rows of varying size plants may be planted in a stair-step method so that varied degrees of cover exist.

Hedgerows established for wildlife purposes should be a minimum of 20 feet wide. Generally, the wider the corridor, the greater the number of wildlife species that will use it. Hedgerows should be as long as needed for field conditions. The contour should be followed on sloping fields.

Center row(s) should consist of the tallest growing species and height should decrease down to the outermost rows of herbaceous vegetation. Grasses, vines and forbs may be planted adjacent to the woody plants.

At least one third of the hedgerow should consist of evergreens to provide winter cover if that is a concern.

The value of older established hedgerows can be improved for wildlife by interplanting open areas within hedgerows or renovating one-third of the length of the hedgerow at a time, using species that provide wildlife food and cover.

Wildlife corridors (travel lanes) provide cover and food for wildlife, while allowing ease and safety of movement between habitat types. Hedgerows that are intended to serve primarily as wildlife corridors shall be a minimum of 25 feet wide.

Pollinator & Beneficial Insect Habitat and Biodiversity

Hedgerows established for pollinators are a minimum of 25 feet wide and require a minimum of 2 rows of woody plants

Hedgerow plants must provide pollen and nectar resources when flowering. Shrubs that contain soft pith for wood nesting bees should also be considered.

The plants selected should be based on their ability to provide nectar and/or pollen resources. They must bloom during critical time periods and provide food for pollinators continuously throughout the season; and be protected from pesticides that may harm pollinators.

The actual number of species used should be dependent upon the availability of adjacent flowering plants. Plants that bloom during the same period as adjacent insect-pollinated crops can be excluded. Often times however this information is not available at the time of planting. In its absence, utilize a minimum of three species of trees and/or shrubs. This mixture shall consist of species in each of the following bloom periods:

- March to May = Very Early/Early Season
- May through July = Mid Season

Because woody species stop blooming earlier in the growing season and the floral resources are not available, it is not advisable to depend solely upon woody species to provide pollinator resources. For this reason, it is acceptable to utilize bloom periods of very early, early and mid-season. Late season blooming species may be utilized if they are available.

Optional Considerations

1) Light disking an area 10 to 20 feet wide alongside the hedgerow planting will provide additional wildlife food and cover. Light disking should be performed on a 2-3 year cycle. Rotate and/or alternate the location of lightly disked areas each year along the length of the hedgerow. When the disked area is rotated, the old area should have sufficient permanent cover to provide wildlife habitat and soil loss protection. On highly erodible land, disking should maintain a minimum of 30 percent residue.

2) Perennial forbs or annuals such as lespedeza, browntop millet, small grains, or corn can be planted in the spring alongside the hedgerow to provide additional wildlife plantings. These plantings should be a minimum of 20 feet in width.

3) Plant native warm-season grasses/forbs adjacent to hedgerows. These bunch grasses provide good nesting sites for ground-nesting birds, and the open spaces between plants allow good feeding habitat for birds, pollinators and small mammals. Refer to Conservation Cover (327).

4) Installation of artificial nest boxes with predator guards can encourage cavity-nesting birds pollinators and small mammals to utilize a hedgerow. Refer to CPS Structures for Wildlife (649)



Operation and Maintenance

After a well-planned hedgerow has become established, little upkeep is necessary.

Where practical, management activities will be performed outside the primary nesting season (May 15 – Aug 1). An exception may be for mowing or cultivation during the establishment period to control vegetative competition.

Pruning, thinning and removal of plants should be performed at least annually and timed so as not to interfere with the lifecycle of the plants or the intended purpose of the hedgerow.

Remove any diseased plants or limbs immediately upon detection.

Replacement of dead trees or shrubs and control of undesirable vegetative competition should continue until the hedgerow is fully mature. Cultivation for a year or two may be necessary if plant competition becomes a problem.

The hedgerow should be continuously protected from fire, grazing and trampling.

The hedgerow should be inspected after heavy storm events. Check for areas where water, ice or snow is concentrated and may cause damage to plants and take corrective actions as necessary.

Additional operation and maintenance requirements may be developed on a site-specific basis to assure performance of the practice as intended.

Specifications

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Site-specific requirements are listed on the following pages of this job sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide. Information listed in this job sheet is considered to be part of the conservation plan.

Client:	Farm #:
Location:	Tract #:
Designed By:	Date:

Purpose (check all that apply)

<input type="checkbox"/> To provide food and cover for terrestrial wildlife (min 20 feet wide, 2 species)	<input type="checkbox"/> To provide winter cover for various wildlife species (min 25% evergreen)
<input type="checkbox"/> To provide corridors or travel lanes for wildlife (min 25 feet wide, 2 species)	<input type="checkbox"/> To provide pollinator habitat (min 3 species and 25 feet wide and 2 rows)
Target Wildlife Species:	

Layout	Hedgerow _____	Hedgerow _____	Hedgerow _____
Method of Establishment ¹			
Planting/Establishment Date			
Interplanting into existing vegetation (Y/N)			
Hedgerow Width (ft.)			
Hedgerow Length (ft.)			
Field #			
Livestock Exclusion Required ²			
Additional vegetation (native grass, forbs, etc.)			
Width			
Method of Establishment			
Site Preparation Method ³			
See additional attached information			

¹ **Hand** or **Mechanical**- refer to Conservation Practice standards (612) Tree/Shrub Establishment and (490) Tree/Shrub Site Preparation. ² Refer to Conservation practice Standard (472) Access Control.

³ **Chemical Application, Hand Scalping, Cropping, Combination** - For combination methods specify in the additional specifications section.

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Plant Materials	Hedgerow ____	Hedgerow ____	Hedgerow ____
1- Plant Materials (species/cultivars)			
Type			
Row #			
Spacing			
2 - Plant Materials (species/cultivars)			
Type			
Row #			
Spacing			
3 - Plant Materials (species/cultivars)			
Type			
Row #			
Spacing			
4 - Plant Materials (species/cultivars)			
Type			
Row #			
Spacing			
5 - Plant Materials (species/cultivars)			
Type			
Row #			
Spacing			
6 - Plant Materials (species/cultivars)			
Type			
Row #			
Spacing			
7 - Plant Materials (species/cultivars)			
Type			
Row #			
Spacing			
8 - Plant Materials (species/cultivars)			
Type			
Row #			
Spacing			
9 - Plant Materials (species/cultivars)			
Type			
Row #			
Spacing			

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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.

Additional Specifications and Notes: (i.e. additional notes, operation and maintenance specifics, etc.)

The hedgerow(s) will be maintained as described in the section entitled "Operation and Maintenance". **Additional Notes:**

CERTIFICATIONS

Job Sheet	Prepared by:	Title:	Date:
	Approved by:	Title:	Date:
Installation	Meets NRCS standards and specifications		
	Certification by:	Title:	Date:

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