

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

**HEDGEROW PLANTING
(Ft.)**

CODE 422

DEFINITION

The establishment of dense vegetation in a linear design to achieve a natural resource conservation purpose.

PURPOSE

To provide at least one of the following conservation objectives:

- Food, cover and corridors for terrestrial, avian or aquatic wildlife
- Intercept airborne particulate matter
- Reduce chemical drift and odor movement
- Increase carbon storage in biomass and soils
- Living fences
- Boundary delineation
- Contour guidelines
- Screens and barriers to noise and dust
- Improvement of landscape appearance

CONDITIONS WHERE PRACTICE APPLIES:

This practice applies wherever it will accomplish at least one of the purposes stated above.

CRITERIA

General Criteria Applicable to All Purposes

Minimum width for Hedgerow Planting is 10' at planting.

Hedgerows planned for woody vegetation must consist of at least two rows of plant materials.

Hedgerows shall be established using woody plants, or perennial bunch grasses producing erect stems attaining average heights of at least 3 feet and persisting well over winter. Refer to the *Plant Establishment Guide for Virginia* for plant selection and to the Virginia Conservation Standard *Tree/Shrub Establishment (Code 612)* for additional planting guidance.

Plants selected must support the landowners' objectives and purposes and be adapted to the soils, climate and conservation purpose.

No plant listed by the state as a noxious weed shall be established in a hedgerow.

The practice shall be protected from livestock grazing and trampling to the extent necessary to ensure that it will perform the intended purpose(s).

Competing vegetation shall be controlled until the hedgerow becomes established.

All planned work shall comply with federal, state and local laws and regulations.

Hedgerows will be established with at least three species of plant materials.

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

NRCS, VA, August 2006

Additional Criteria for Wildlife Food, Cover and Corridors

Minimum hedgerow width, at planting, will be 15 feet and at maturity 30 feet.

Hedgerow plantings adjacent to small watercourses will be site-adapted and designed to shade the watercourse at maturity.

Additional Criteria for Living Fences

Selected plants shall attain a size adequate to create a barrier to contain livestock or humans.

If the purpose is to contain livestock, selected plants shall not be poisonous or hazardous to the animals.

Additional Criteria for Boundary Delineation

Hedgerows shall be aligned along boundaries of fields, or forestlands to differentiate land management units.

Additional Criteria for Contour Guidelines

Hedgerows shall be aligned so they provide permanent contour markers supporting implementation of Virginia Conservation Standard *Contour Farming (330)* or *Stripcropping (585)*. Refer to these conservation practice standards for alignment criteria.

Additional Criteria for Screens and Noise Barriers

Hedgerows shall be located where they most completely obstruct a line of sight or baffle offensive sound.

Additional Criteria for Improvement of Landscape Appearance

Plants shall be selected based upon the landowner's preferences for color, texture and growth habit.

Additional Criteria for Reducing Particulate Matter Movement

The hedgerow will be oriented as close to perpendicular to the prevailing wind direction as possible.

Hedgerow density on the upwind side shall be at least 50% at maturity.

Hedgerow density adjacent to the particulate source shall be at least 65% at maturity.

Additional Criteria to Reduce Odor Movement and/or Chemical Drift

Orientation of the hedgerow shall be as close to perpendicular to the prevailing wind direction during the period of concern, and between the source of the odor or chemical drift and the sensitive areas.

Hedgerows shall be located upwind of the odor producing area and the chemical application area.

Tree and shrub species used shall have foliar and structural characteristics that optimize interception, adsorption and absorption of airborne chemicals or odors.

CONSIDERATIONS

General

Planting a hedgerow greater than the minimum width will increase the amount of carbon sequestration and other environmental benefits.

Hedgerows can be planned in combination with other practices to develop complete conservation systems that address all SWAPA concerns.

Hedgerows planted on the contour produce a natural appearance and increase the availability of "edge" wildlife habitats.

A mixture of native shrubs and small trees provide greatest environmental benefits.

Use of bareroot and containerized seedlings will accelerate hedgerow development.

Consider the amount of shading a hedgerow will provide at maturity. Shading may impact growth of adjacent plants, microclimate and aesthetics.

Consider avoiding the use of plants that spread by root suckers as hedgerow may expand beyond the desired treatment area.

Wildlife Food, Cover and Corridors

Hedgerows provide travel lanes, or corridors that allow wildlife to move safely across a landscape.

Generally, wider corridors encourage more utilization by wildlife.

Linking fragmented habitats may increase wildlife use of an area.

In grassland ecosystems, hedgerows may adversely affect area-sensitive nesting birds by fragmenting habitat patches and increasing the risk of predation.

Hedgerows can complement the availability of naturally occurring wildlife foods and provide wildlife with cover for feeding, loafing, nesting and rearing young.

Establishment of evergreen plants provides year-round concealment and thermal cover for wildlife.

Establishment of herbaceous vegetation along the edges of a hedgerow can further enhance the habitat functions of a hedgerow.

Living Fences

Thorny shrubs and trees can improve a living fence's barrier effect.

Screens and Noise Barriers

Consider the design from viewpoints on both sides of the screen.

Locate noise barriers as close to the source of noise as possible.

Evergreens mixed with other species provide foliage that can maintain a screen's year-round effectiveness.

Improving Landscape Appearance

Consider plants' seasonal display of colors on bark, twigs, foliage, flowers and fruit.

Consider plants' growth habits (outline, height and width).

PLANS AND SPECIFICATIONS

Plans and specifications for this practice shall be prepared for each site. Plans and specifications shall be recorded using approved specification sheets, job sheets, or narrative documentation in the conservation plan, or other acceptable documentation.

OPERATION AND MAINTENANCE

Vegetation shall be maintained to ensure continued control of odor movement and chemical drift.

Supplemental planting may be required when survival is too low to produce a continuous hedgerow.

Vegetation shall be protected from unwanted fire and grazing throughout its life span.

Pests shall be monitored and controlled.

Periodic applications of nutrients may be needed to maintain plant vigor.

Renovation activities shall be scheduled to prevent disturbance during the wildlife nesting season.

Limiting renovation events to one-third of a hedgerow's length or width will prevent sudden elimination of the practice's wildlife habitat function.

REFERENCES

National Biology Handbook, Part 614.4, "Conservation Corridor Planning at the Landscape Level". Natural Resources Conservation Service, August 1999.

Plant Establishment Guide for Virginia.

Virginia NRCS FOTG Section I & IV.

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