

## VEGETATIVE BARRIER SPECIFICATIONS

### NATURAL RESOURCES CONSERVATION SERVICE

#### DESIGN CRITERIA

Vegetative barriers will be a minimum of 3 feet wide (2 - 36" to 40" rows). Vegetative barriers may be wider than 3 feet to adjust for planter and or sprayer width. Vegetative barrier length will vary depending on topography. In concentrated flow areas, each strip will extend far enough to provide 1.5 feet of elevation from the outer edge of the flow area to the end of the vegetative barrier.

Vegetative barrier crop spacing, vegetative barrier width, and maximum slope length limits are listed in Table 1. Adjustments of 10 percent in spacing of vegetative barrier crop width will be allowed for machinery width and row spacing. Upward adjustments of the vegetative barrier width will be allowed for wildlife or maintenance.

All seeded vegetative barriers will be planted with species identified in [Appendix 1 – Planting Rates for Louisiana by MLRA's](#).

**Table 1. Vegetative barrier crop spacing and width.**

Land Slope Percent	Max. Crop Strip Width	Min. Veg. Barrier Width	Max. Slope Length Limits
-----feet-----			
0-2.0	150	3	800
2.1-3.0	100	3	350
3.1-5.0	75	3	300
5.1-8.0	60	3	200

#### SEEDBED PREPARATION

Seedbed preparation and seeding depth are two critical factors that must be addressed for successful vegetative barrier establishment. During the establishment year, switchgrass grass devotes most of its energy to root development. Perennial weed competition can adversely effect stand establishment by shading out young grass seedling and may cause stand failure.

Chemical weed control should be made prior to seedbed preparation. Determine what weed species are most likely to be present throughout the growing season before you start planning your competition control. When labeled herbicides are applied a Risk Assessment (WIN-PST) should be performed following practice standard 595 Pest Management.

Seeds should be planted on a firm seedbed no deeper than a ¼ inch. Use a cultipacker, roller or similar implement to firm seedbed prior to planting. If rain has settled a freshly prepared seedbed, then harrow before planting. Seedbed should be cultipacked before and after planting. At this shallow planting depth, it is acceptable to have a few seed (less than 10%) visible on the surface.

#### ESTABLISHMENT METHOD AND PLANTING DATE

All seed and planting materials will be labeled and meet state seed quality law standards. Seeding rates will be determined based on **pure live seed (PLS)** or percent germination information found on the seed tag. Percent PLS can be computed using decimal values with the following equation.

$$\% \text{ Pure Live Seed} = [(\text{Percent germination} + \text{Percent hard seed}) \times \text{Percent purity}] / 100$$

Seed should be planted with a grassland drill (conventional or no-till). Planting with a broadcast seeder is acceptable into a prepared seedbed followed by a cultipacker or roller.

The optimum planting dates are contained in [Appendix 1 – Planting Rates for Louisiana by MLRA's](#). If weed control is scheduled during the same growing season, allow perennial weeds to begin active growth, chemically treat then prepare and plant switchgrass.

Concentrated flow or low areas can be established with transplants. Transplanted barriers should be planted dense enough to function within one growing season. Transplants should have a minimum of 5 viable stems and be spaced no more than 6 inches between plants. Transplanted barriers will have a minimum of two rows. Transplants should be made during periods of adequate moisture in early spring (March to May) or during the dormant season (November to February).

### **SOIL FERTILITY**

Fertilizer for establishment purposes will be done according to a current soil test for all species. Plant nutrients necessary for establishment of the cover shall be applied according to specifications in the conservation practice standard, Nutrient Management (590).

Lime is recommended for all soils with a pH below 5.0. Lime applications should follow rates recommended on soil test results. If recommendations are not available, use the following general guidelines. One-ton agricultural limestone or dolomitic limestone per acre will generally raise the pH approximately one unit. Soil pH should be maintained at 5.5 or higher.

### **WEED CONTROL**

Weed pressure or competition can cause stand failure. In these areas, it will be necessary to chemically control unwanted vegetation with herbicide. Herbicides need to be labeled for switchgrass and applied according to label directions and LSU AgCenter recommendations and according to Pest Management (595) specifications.