

Conservation Cover (Native Grasses and Forbs)

S. C. Practice Job Sheet 327

Prepared for: _____

Prepared by: _____

Farm: _____ Tract: _____ Date: _____



Partridge Pea and Switchgrass



Indian Grass



Big Bluestem

DEFINITION

Establishing and maintaining permanent vegetative cover using herbaceous plant species native to the Southeastern United States and South Carolina.

PURPOSE

This practice may be applied to accomplish one or more of the following:

- Reduce soil erosion and sedimentation.
- Improve water quality
- Improve air quality
- Enhance wildlife habitat.
- Improve soil quality

WHERE USED

This practice applies on all lands needing permanent vegetative cover and erosion control plantings. This practice does not apply to plantings for forage production or to typical critical area plantings.

OPERATIONS

Pre-planting:

Scout the fields that are planned to have conservation cover applied at least one year prior to the planned seeding date. Identify all of the vegetation that will compete with the native warm season grasses and forbs or desired planting. It is critical to the success of the

seeding that ALL of the competition (especially Bahia and Bermuda grasses) from other plants be removed prior to seeding.

Follow the recommendation of the Clemson Weed Guide or Clemson Extension for the correct herbicide treatment prior to seeding. It can often be necessary to apply a chemical treatment in the fall before seeding and also a second treatment in the spring just before seeding. Delay seeding for the recommended time necessary for selected herbicide.

Soil PH should be above 5.5 (6.5 is best). Get a soil test to determine whether or not to add lime.

Nitrogen is not recommended at planting since it will encourage undesirable plant competition. Nitrogen can be applied after seedling emergence (mid-year) at 30-50 lbs/acre.

Phosphate and Potash can be added at planting if needed. Native warm-season grasses do well on soils testing 20 to 35 pounds of Phosphorus per acre.

Make sure all planting equipment is cleaned prior to use on site to prevent seeds, rhizomes or other material from invasive exotic plants from being brought to the site.

Seeding:

Drill grass, forb, and legume seed ¼ inches deep or broadcast uniformly over area. Culti-pack or roll after seeding and cover seed ¼ inch (depth is critical for success). It is okay to see up to 30% of seed on top of the ground. Seeding just before rain will aid in success. Establish vegetation according to the specified seeding rate. See Seeding rate information below.

Application rates are determined by pure live seed (PLS). To calculate the required amount of seed, multiply the (% purity) by (% germination) and then divide the application rate below by PLS. Purity and germination will be provided on the tag or by your supplier.

Example: If seed purity is 95% and the germination is 75% then (0.95) (0.75) = 0.7125 PLS.

If the application rate is a total of 6 lbs. PLS, divide 6 lbs. PLS by 0.7125 to determine that 8.42 lbs. is required for each acre. If your acreage is 2 acres, multiply the 8.42 lbs. by 2 acres for a total of 16.84 or 17 lbs.

If necessary (for sloped areas > 6% with high erosion potential), mulch newly seeded area with 1,000 lbs per acre of mulch material. Straw mulch shall consist of wheat, barley, oat or rye grain straw, hay, or grass cut from native grasses. Mulch must not contain noxious or invasive weeds.

A small grain crop can be planted as a companion crop at the rate of 5 pounds per acre (use wheat, barley, oats, rye grain, or browntop millet) sloped areas > 6% with high erosion potential). Conservation Cover will be planned and applied in a manner consistent with the habitat

MAINTENANCE:

Where wildlife habitat is the primary purpose, maintenance activities should not disturb cover during the primary nesting season from April 1 – September 1, annually. Exceptions should be considered for periodic burning or mowing when necessary to maintain the health of the desired plant community.

Establishment may take 1 – 3 years. Burn every 2-3 years after establishment. Burn, lightly disk, or mow (only if needed) only from Oct. 1 to March 1 to protect ground birds during their nesting season. If stand is mowed, do not cut below 6 inches or plants may be killed. If stand is mowed, bale and remove thatch. aim plant density and vigorous plant growth.

Noxious and invasive species should be controlled to prevent proliferation and competing with the desired plant community.

Inspect after major storms, remove trapped sediment, repair eroding areas and reseed any areas where cover has been destroyed during the next appropriate seeding period.

Additional Operation and Maintenance requirements specific to this plan:

| Native Grass Species to plant or promote for the benefit of wildlife (nesting and travel cover, facilitates movement, provides seeds, attracts insects to eat) | | | |
|---|----------------------------|--------------------|-----------------------|
| Common Name (grasses) | Soil moisture needs | Light needs | Growing Season |
| Big Bluestem | moist to dry | full sun | warm |
| Bushy Bluestem | moist to wet | full sun | warm |
| Splitbeard Bluestem | dry | sun to part shade | warm |
| Wiregrass (can plant plugs) | dry | sun to part shade | warm |
| River Oats/Indian Wood Oats | moist | sun to shade | cool |
| Toochache Grass | moist to wet | part shade | warm |
| Canada Wild Rye | moist to dry | sun to shade | cool |
| Bottlebrush Wild Rye | wet to moist | shade | cool |
| Riverbank Wild Rye | wet to moist | sun to shade | cool |
| Virginia Wild Rye | moist | sun to shade | cool |
| Fowl Manna Grass | moist | sun to shade | cool |
| Muhly Grass | moist to wet | full sun | warm |
| Beaked or Fall Panicum | moist to wet | part shade | warm |
| Deer Tongue Rosette Grass | dry | sun to shade | warm |
| Switchgrass (aggressive, no more than 1 lb. PLS/ac) | moist to dry | full sun | warm |
| Little Bluestem | dry to moist | full sun | warm |
| Indian grass | dry to wet | full sun | warm |
| Lopsided Indian Grass | dry | full sun | warm |
| Pineywoods Dropseed | dry | part shade | warm |
| Purple Top | dry | full sun | warm |
| Eastern Gama Grass (plant 1 in. deep, can use a corn planter) | moist to wet | full sun | warm |

| Common Name (if local Southeastern ecotype seed is available, it is indicated here) | NATIVE FORBS FOR WILDLIFE | Soil Moisture Requirements | Light Requirements | Bloom Color | Region Best Suited |
|---|--|----------------------------|---------------------------|---------------|--------------------|
| | Scientific Name / Alternate names- | | | | |
| Common Ragweed | <i>Ambrosia artemisiifolia</i> | low | sun to shade | green | All |
| Common Milkweed | <i>Asclepias syriaca</i> | moderate | full sun | pink | M, P |
| Butterfly Milkweed | <i>Asclepias tuberosa</i> | low | full sun | orange | All |
| Smooth Blue Aster | <i>Aster laevis / Symphyotrichum laeve</i> | moderate | part sun | blue | All |
| New England Aster | <i>Aster novae-angliae / Symphyotrichum novae-</i> | moderate | part shade | purple | M |
| Purple Stemmed Aster | <i>Aster puniceus / Symphyotrichum puniceum</i> | high | full sun | purple | M, P |
| White Wild Indigo (legume) | <i>Baptisia alba</i> | moderate | full sun | white | All |
| Blue Wild Indigo (legume) WV ecotype | <i>Baptisia australis</i> | moderate | full sun | purple, blue | M, P |
| Showy Tickseed Sunflower/Bur-marigold (NC ecotype) | <i>Bidens aristosa</i> | moderate to high | full sun or partial shade | yellow | All |
| Partridge Pea (legume) -FL ecotype | <i>Chamaecrista fasciculata / Cassia fasciculata</i> | low | full sun or light | yellow | All |
| Largeflower Tickseed (GA ecotype) | <i>Coreopsis grandiflora</i> | low | full sun | yellow | All |
| Lance Leaved Coreopsis | <i>Coreopsis lanceolata</i> | low | part shade | yellow | All |
| Illinois Bundleflower (legume) | <i>Desmanthus illinoensis</i> | moderate | full sun | white, yellow | All |
| Showy Tick-Trefoil (legume) | <i>Desmodium canadense</i> | low to high | sun to part shade | purple | All |
| Panicle-leaf Trefoil (legume) | <i>Desmodium paniculatum</i> | low | sun to part shade | purple | All |
| Dixie Tick Trefoil / Florida Beggarweed (legume) -AL ecotype | <i>Desmodium tortuosum</i> | low | full sun | purple | P, CP |
| Rattlesnake Master (SC ecotype) | <i>Eryngium yuccifolium</i> | low to moderate | sun to part shade | white | All |
| Joe Pye Weed | <i>Eupatorium fistulosum</i> | moderate | part shade | pink | All |
| Boneset | <i>Eupatorium perfoliatum</i> | moderate to high | full sun or partial shade | white | All |
| Indian Blanket | <i>Gaillardia pulchella</i> | low to moderate | full sun | red | P, CP |
| Sneezeweed | <i>Helenium autumnale</i> | moderate | full sun | yellow | All |
| Swamp/Narrow-Leaf Sunflower | <i>Helianthus angustifolius</i> | moderate | full sun or partial shade | yellow | All |
| Ox Eye Sunflower | <i>Heliopsis helianthoides</i> | low to moderate | full sun | yellow | All |
| Crimson-eyed Rose Mallow (NC ecotype) | <i>Hibiscus moscheutos</i> | high | full sun | white | All |
| Blue Flag Iris | <i>Iris virginica</i> | high | sun to shade | purple | All |
| Roundhead Lespedeza (legume) | <i>Lespedeza capitata</i> | low | full sun | yellow | All |
| Hairy Lespedeza (legume) | <i>Lespedeza hirta</i> | low | full sun | white | All |
| Grass-leaf Blazing Star (NC ecotype) | <i>Liatris graminifolia / L. pilosa</i> | low | full sun | purple | All |
| Marsh Blazing Star | <i>Liatris spicata</i> | moderate | part shade to sun | pink, purple | M, P |
| Wild Blue Lupine (legume) | <i>Lupinus perennis</i> | low | full sun | blue | P, CP |
| Lemon Mint | <i>Monarda citriodora</i> | moderate | shade | purple | P, CP |
| Wild Bergamot | <i>Monarda fistulosa</i> | high | part sun | pink | M, P |
| Spotted Bee Balm (SC, NC ecotypes) | <i>Monarda punctata</i> | low | full sun | purple | All |
| Evening Primrose | <i>Oenothera biennis</i> | moderate | shade | yellow | All |
| Showy Primrose | <i>Oenothera speciosa</i> | low | full sun | yellow | All |
| Wild Quinine (GA, VA ecotypes) | <i>Parthenium integrifolium</i> | low | full sun | white | M, P |
| Appalachian Beard Tongue (SC ecotype) | <i>Penstemon laevigatus</i> | high | full sun | purple | All |
| Annual Phlox | <i>Phlox drummondii</i> | low | sun to part shade | pink, red | P, CP |
| Pickrelweed | <i>Pontederia cordata</i> | high | full sun | purple | All |
| Greyheaded Coneflower | <i>Ratibida pinnata</i> | moderate | full sun | yellow | P |
| Black-Eyed Susan | <i>Rudbeckia hirta</i> | moderate | full sun | yellow | All |
| Maryland Senna (legume) | <i>Senna marilandica / Cassia marilandica</i> | low to high | shade | yellow | All |
| Starry Rosinweed (SC ecotype) | <i>Silphium asteriscus</i> | moderate | full sun | yellow | All |
| Cup Plant | <i>Silphium perfoliatum</i> | moderate | sun to part shade | yellow | P |
| Pinebarren Goldenrod (FL ecotype) | <i>Solidago fistulosa</i> | moderate | full sun | yellow | CP |
| Rigid Goldenrod | <i>Solidago rigida or Oligoneuron rigidum</i> | moderate | sun to part shade | yellow | M, P |
| Showy Goldenrod (GA, WV ecotypes) | <i>Solidago speciosa</i> | high | part shade | yellow | All |
| Goat's Rue (legume) | <i>Tephrosia virginiana</i> | low | sun to shade | pink, yellow | All |
| Ohio Spiderwort/Bluejacket | <i>Tradescantia ohiensis</i> | low | shade | purple | P, CP |
| Zigzag Spiderwort (VA ecotype) | <i>Tradescantia subaspera</i> | low | part shade | blue | M, P |
| Virginia Spiderwort (PA/VA ecotype) | <i>Tradescantia virginiana</i> | moderate | part shade | purple | All |
| Yellow Wingstem | <i>Verbesina alternifolia</i> | high | full sun | yellow | All |
| Giant Ironweed | <i>Vernonia gigantea or altissima</i> | moderate | sun to shade | purple | P, CP |
| New York Ironweed (NC ecotype) | <i>Vernonia noveboracensis</i> | moderate | sun to shade | purple | All |
| Golden Alexanders | <i>Zizia aurea</i> | moderate | full sun to part shade | yellow | All |

Conservation Cover 327 – Guidance

Landowner _____ Tract/field number _____

| Layout (use what is applicable) | Site 1 | Site 2 | Site 3 | Site 4 |
|--|-----------------|--------------------------|------------------------------|-------------------------|
| Field or Border width (feet) | | | | |
| Field or Border length along edge of field (feet) | | | | |
| Area (acres) | | | | |
| Slope (%) | | | | |
| Lime (tons/acre) if needed based on soil test -PH should be above 5.5 (6.5 is best). | | | | |
| Species | Rate (PLS/acre) | Total (rate/PLS x acres) | % Germination (on bag label) | % Purity (on bag label) |
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Example: If seed purity is 95% and the germination is 75% then $(0.95) (0.75) = 0.7125$ PLS.
 If the application rate is a total of 6 lbs. PLS, divide 6 lbs. PLS by 0.7125 to determine that 8.42 lbs. is required for each acre. If your acreage is 2 acres, multiply the 8.42 lbs. by 2 acres for a total of 16.84 or 17 lbs.

Planting Dates: Spring March 15 to June 1 (Optimum 3/1 - 4/20), Fall: Sept. 1 to Oct. 20

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|---|
| Site Preparation |
| Remove all existing competition especially perennials including Bahia and Bermuda. Prepare seedbed. Seedbed should be firm prior to broadcasting seed. Apply lime as indicated by soil testing. Do not use fertilizer. |
| Planting Method |
| Drill grass, forb, and legume seed $\frac{1}{4}$ inches deep or broadcast uniformly over area. Culti-pack or roll after seeding and cover seed $\frac{1}{4}$ inch (depth is critical for success). It is okay to see 30% of seed on top of ground. Establish vegetation according to the specified seeding rate. Additional requirements: |
| Operation and Maintenance |
| Establishment may take 1 – 3 years. Mow or burn every 2-3 years after establishment. Do not cut below 6 inches or plants may be killed. Burn, lightly disk, or mow only from Oct. 1 to March 1 to protect ground birds during their nesting season. If stand is mowed, bale and remove thatch. Nesting season occurs April 1 to Sept. 1, no management during this window. Additional requirements: |
| Job Sheet Certification |
| Prepared by: _____ Title: _____ Date: _____ |
| Approved by: _____ Title: _____ Date: _____ |
| Installation Meets NRCS Standards and Specifications? YES NO |
| Certification by: _____ Date: _____ |

WinPST Soil Pesticide Interaction Loss Potential and Hazard Rating Report are attached and were discussed with the landowner in formulating the plan of herbicide application.