

**MERCER COUNTY SCD'S REQUIREMENTS FOR
PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION**
In accordance with the NJ Standards for Soil Erosion and Sediment Control, July 1999

1. Topsoil Stripping and Stockpiling

- A. Field exploration should be made to determine whether quantity and/or quality of surface soil justifies stripping.
- B. A 6-inch stripping depth is typical, but may vary depending on the particular soil structure or pre-existing use.
- C. Stockpiles should be located so as not to obstruct natural drainage or cause off-site environmental damage, and shall be delineated on the Certified Soil Erosion and Sediment Control Plan and be constructed in accordance with the Topsoil Stockpile Detail.
- D. Stockpiles should be Temporarily Stabilized according to the STANDARDS.

2. Site Preparation

- A. Install erosion control measures and facilities such as silt fence, diversions, sediment basins, and channel stabilization.
- B. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, tacking, and maintenance. All grading should be done in accordance with the STANDARD for Land Grading, 19-1.

3. Seedbed Preparation

- A.

TOPSOIL REQUIRED

MIN. DEPTH: 5" (UNSETTLED)
pH: 6.0 to 8.0
ORGANIC MATTER CONTENT: 2.75% MIN.
NITRATE N2: 50 LBS/ACRE (50% WATER INSOLUBLE)
PHOSPHOROUS: 100 LBS/ACRE
POTASSIUM: 50 LBS/ACRE
- B. THE CONTRACTOR SHOULD BE AWARE OF THE POSSIBILITY, DEPENDING UPON THE SITE CONDITIONS, THAT ALL TOPSOIL MAY HAVE TO BE PROVIDED FROM AN OFF-SITE SOURCE.
- C. Topsoil should be handled only when dry enough to work without damaging soil structure.
- D. Apply a uniform 5 inches (unsettled) of topsoil on all disturbed areas. Soils with a pH of 4.0 or less or containing iron sulfide shall be covered with a minimum depth of 12 inches of soil having a pH of 5.0 or more and the top 5 inches shall conform to the Topsoil STANDARD and shall be limed according to the specifications.
- E. If the topsoil becomes compacted, the surface must be scarified 6" to 12" to provide good seed-to-soil bond.
- F. Apply limestone and fertilizer according to soil test recommendations such as those offered by Rutgers University Cooperative Extension. If soil testing is not feasible, fertilizer (10-20-10) with 50% water insoluble nitrogen should be applied at the typical rate of 500 lbs/acre or 11 lbs/1,000 square feet.

- G. Apply limestone equivalent to 50% calcium plus magnesium oxides (pulverized dolomitic limestone is preferred for most soils south of the New Brunswick – Trenton Fall Line) as follows:

Soil Texture	Tons/Acre	lbs/1,000 sq. ft.
Clay, clay loam, high organic	3	135
Sandy loam, loam, silt loam	2	90
Loamy sand, sand	1	45

- H. Work lime and fertilizer into the soil to a depth of 4 inches. The final harrowing or disc operation should be on the general contour. Continue tillage until a uniform, fine seedbed is prepared.
- I. Remove from the surface all stones 2 inches or larger in any dimension, and other objectionable stones or debris such as wire, tree roots, pieces of concrete, clods, lumps, or other unsuitable material.

4. Seeding

- A. Select a seed mixture approved by the Mercer County SCD.
- B. Apply seed uniformly by hand, cyclones, drop seeder, drill cultipacker, or hydroseeder*. The latter may be justifiable for large, steep areas where conventional applications are not feasible. Hydroseeding shall be a two-step process: **MULCH SHALL NOT BE MIXED WITH THE SEED; THE SEED MUST BE APPLIED FIRST** to assure proper seed to soil contact. The hydromulch is then sprayed over the seeding. For optimum results, the seed should be incorporated into the soil to a depth of ¼ to ½ inch depending upon species.

****The use of hydro-mulch, as opposed to straw, is limited to optimum seeding dates as listed in the STANDARDS.***

- C. After seeding, the soil should be packed with a corrugated roller. When performed on the contour, rolling will minimize sheet erosion and maximize water conservation.

5. Mulching

- A. Unrotted straw, hay free of seeds, or salt hay is **REQUIRED** on all seeding at a rate of 1.5 to 2 tons/acre, (70 to 90 lbs./1,000 square feet), except where a crimper is used instead of a liquid mulch-binder, then the rate of application is 3 tons per acre.
- B. Mulch anchoring should be accomplished immediately after placement to minimize loss due to wind or water. This may be done according to the following methods:
1. Wood-fiber or paper-fiber mulch at the **RATE OF 1,500 LBS/ACRE** applied by the hydroseeder. Use is limited to only the optimum seeding season.
 2. Synthetic or Organic Binders
 3. Peg and twine, mulch netting, and mechanical crimping.
 4. Crimping requires a higher mulch rate (3 tons/acre).

NOTE: 1) One bale of hay weighs 40-60 lbs depending on how it was baled.
2) 1,500 gallon tank of hydromulch covers .5 acres.

Please Note: The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4-3 of the STANDARDS are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. (Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the District. These rates apply to all methods of seeding. **Establishing permanent vegetation means 80% evenly distributed vegetative cover {of the seeded species} and mowed once.**)

6. Temporary Seeding Mixes

**Mix: Early Spring/
Late Summer to Early Fall**
100% Perennial Ryegrass
Rate: 100 lbs/acre

Mix: Late Fall
100% Cereal Rye
Rate: 112 lbs/acre

Mix: Mid-Summer
40% Pearl Millet
40% Millet (German or Hungarian)
20% Weeping Lovegrass
Rate: 100 lbs/acre

7. Recommended Permanent Seeding Mixes

OPTIMUM SEEDING DATES: March 1 to May 15 and August 15 to October 15

Lawns – Rate 200 lbs/acre

Mercer Co. SCD Preferred Mix for LAWNS AND DETENTION BASINS

70% Turf type Tall Fescue*#
20% Perennial Ryegrass
10% Kentucky Bluegrass

**MIX: LAWNS – Low Maintenance,
Droughty & Heavy Traffic**
80% Tall Fescue turf type (Low growing varieties)*#
10% Perennial Ryegrass (Low growing varieties)

MIX: LAWNS – Quality Sun and Shade

20% Perennial Ryegrass
30% Chewings Fescue
35% Creeping Red Fescue
15% Kentucky Bluegrass

(*Include at least three varieties in mix)
#Exclude K-31

MIX: SHADE

65% Hard, Chewings, or Creeping Red Fescue*
20% Kentucky Bluegrass
15% Perennial Ryegrass

MIX: MOIST DETENTION BASIN BOTTOMS

40% Flat Pea (with proper inoculant)
25% Perennial Ryegrass
25% Tall Fescue or Strong Creeping Red Fescue
10% Redtop

+ Use the above mix for infrequent mowing. For a regular mowing regime, substitute Rough Bluegrass and/or Tall Fescue for the Flat Pea.

Conservation Plantings

MIX: RECLAMATION, EROSION CONTROL & ACID SOILS – Rate: 150 lbs/acre

40% Switchgrass
25% Sericea Lespedeza or Flat Pea
15% Tall fescue or Creeping Red Fescue
15% Deertongue
5% Birdsfoot Trefoil

MIX: WILDLIFE HABITAT ENHANCEMENT

Rate: 100 lbs/acre
40% Switchgrass or Coastal Panicgrass
30% Canada Bluegrass or Smooth Brome grass
10% Orchardgrass
10% White Clover
5% Japanese Millet
5% Birdsfoot Trefoil

MIX: WILDFLOWER MEADOW

Rate: 50 lbs/acre
72% Hard or Sheeps Fescue
22% Northeast/Mid-Atlantic Wildflower Mixture
6% Birdsfoot Trefoil

MIX: WATERWAYS & WET BASINS*

Rate: 100 lbs/acre
40% Switchgrass
30% Canada Bluegrass or Smooth Brome grass
15% Rough Bluegrass (Shade) or Tall Fescue (open)
10% Alsike Clover or Ladino White Clover
10% Birdsfoot Trefoil or Creeping Foxtail
4% Japanese Millet
1% Red Top

(*Should not be mowed less than 6 inches)