

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE SPECIFICATION
MULCHING**

(Ac.)

CODE 484

SPECIFICATIONS**1. For mulching in conjunction with grass seeding.****a. Site Preparation:**

- (1). If the soil is compacted, loosen to a depth of two -four inches by chiseling or disking.
- (2). Clear site of debris and smooth to facilitate seeding operations.

b. Time of Application:

- (1). Apply mulch after seeding except when mulching and seeding is done in one operation.

c. Distribution:

- (1) Distribute mulch evenly over the area.
- (2) Spread mulch by blower, flail spreader, or by hand.

d. Types and Rate Mulch:

Many types of material can be used. Plants having long, slender stems make the best residue mulch.

Type of Mulch	Rate (lbs/1000 ft ²)	Rate (tons/ac)
Grass Hay	28	0.6
Small Grain Straw	28	0.6
German Millet Straw	37	0.8
Dry Animal Manure	460 to 918	10.0 to 20.0
Sudan Grass Hay	46	1.0
Grain Sorghum Stalks	46	1.0
Cotton Burrs	460 to 690	10.0 to 15.0
Wood Chips	550	About 12.0
Excelsior Blanket	80-100% Cover	80-100% Cover
Jute Netting	80-100% Cover	80-100% Cover
Permanent Soil Reinforcing Mat	80-100% Cover	80-100% Cover

e. Anchoring -- hay straw, etc.

- (1) Use a straight coulter type machine (a tandem disk in the closed position works well) and anchor to a depth of two inches with a maximum spacing of 12 inches between coulters.
- (2) Use a disk and incorporate the mulch only enough to anchor it. (When using a coulter machine or disk, work the area across slope if water erosion is a dominant hazard and perpendicular to erosive wind directions if wind erosion is a dominant hazard.)
- (3) Anchor by hand with a square pointed spade. Push mulch into soil two inches at 12-inch intervals.
- (4) Use netting manufactured for the purpose of anchoring mulch.
- (5) Use a commercial emulsion.

2. Mulching Fields to Reduce Erosion Hazards**a. Material and Rates:**

Type of material depends on availability and field conditions. If mulch is needed, at least one-third of the surface should be covered.

Type of Mulch	Rate (lbs/1000ft ²)	Rate (tons/ac)
Grass Hay	70	1.5
Small Grain Straw	70	1.5
Animal Manure	1600	35.0
Sudan Grass Hay	90	2.0
Sorghum stalks	230	5.0
Corn Stalks	344	7.5
Cotton Burrs	573	12.5
Wood Chips (dry bark)	2500	60

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

b. Distribution and Anchoring:

Distribute mulch evenly over the area. Anchor with a straight coulter, which punches mulch into the surface, or by light disking (closed position).

3. Permanent Soil Reinforcing Mat

The soil reinforcement mat shall consist of a machine produced mat of extruded nylon with a minimum content of 0.5 percent by weight of carbon black. The mat shall be three-dimensional with nylon-interwoven monofilaments fused at their intersections.

For concentrated water flow areas, the material shall have a minimum filament diameter of 0.40 mm (.015 inches) with a minimum thickness of 18 mm (.70 inches) weighing a minimum of 377 grams per square meter (.077 pounds per square foot). The material shall be in a roll of a width and length conducive to easy installations

For steep slopes where water flow is not concentrated, the material shall have a minimum thickness of 9 mm (.35 inches) with a minimum filament diameter of .35 mm (0.013 inches) weighing a minimum of 245 grams per square meter (0.05 pounds per square foot). The material shall be in a roll of a width and length conducive to easy installation.

a. Site Preparation

The finished area, where the soil reinforcement mat is to be applied, should be shaped and free from stones, clods, or trash. The area covered should be prepared as a fine seedbed, fertilized and sprigged, if applicable, prior to installation. Areas to be seeded may be planted before or after installation.

Cut a trench across the slope at the entry at least 6 inches wide and 12 inches deep. For water flow areas, cut a terminal trench, and check slot trenches at 25-foot intervals. Cut all trenches 6 inches wide and 12 inches deep.

b. Applying the Soil Reinforcement Mat

When the mat is unrolled, the peak side shall be down. The mat shall be applied in the direction of the flow of water, staked into the entry trench, check slots, and terminal trench. The trenches should be back-filled and the soil tamped down in all trenches and slots.

When two or more lengths are needed end-to-end, each new roll shall be overlapped at least 6 inches. If installed in concentrated water flow direction, new rolls shall be started with a transverse ditch.

When two or more widths are needed to be installed side-by-side, overlap the center strip by three inches.

c. Ground Fastening

Ground fasteners shall be wedge-shaped wood survey stakes with a minimum length of 12 inches or equivalent.

Use stakes at approximately 12-inch spacing across the start of each roll in the entry trench prior to backfilling.

Stake at 4-foot intervals on all overlaps and throughout the length of the roll