

NORTH CAROLINA SUPPLEMENT - 484-II-1

U.S. DEPARTMENT OF AGRICULTURE
Soil Conservation Service

Technical Guide
Section IV
Rev. April 1991

MULCHING

(Temporary Protection of Critical Areas Without Seeding)

Specifications Guide

A. Site Preparation

1. Grade, slope or smooth the site to permit the use of equipment for applying and anchoring the mulch material to be used. Subsequent earth moving or seeding plans will determine if seedbed preparation is feasible at this stage.
2. If mulch anchoring tool or disk is to be used, loosen compacted soil to a depth of three inches.

B. Mulch

Select one of the following vegetative or other suitable materials.

1. Unweathered, unchopped small grain straw or hay at rate of 1.5 to 2 tons per acre. Spread uniformly by hand or mechanically to get complete soil coverage. For uniform distribution of hand spread mulch, divide area into approximately 1,000 square foot sections and place 2 to 3 bales or approximately 100 pounds of mulch for distribution within each section. Anchor mulch immediately after placement to minimize loss by wind or water.
2. Sericea Lespedeza at a rate of three tons per acre. This mulch may be applied green or dry. Liming, fertilizing, and land preparation should precede application of the sericea mulch.
3. Broomsedge grass mulch - Spread prior to seed head formation.
4. Pine brush - Completely cover ground with green pine boughs.
5. Wood chips and bark - Spread 2 to 3 inches deep on slopes up to 5 percent.

6. Adhesive soil stabilizer:
 - a. Asphalt emulsion - 600 - 1,000 gallons per acre or 11 to 27 gallons per 1,000 square feet.
 - b. Cursol - 270 to 540 per acre diluted by 0.025 - 0.5 gallons of water per square yard is suitable for temporary protection of plane surfaces. May be applied with conventional farm spray equipment.
7. Erosion control matting and netting - Excelsior, jute, textile and plastic matting and netting are available commercially. Follow manufacturer's specifications for their use.
8. Polyethylene film may be secured over banks or stockpiled soil material for temporary protection.

C. Anchoring Mulch

Anchor mulch immediately after placement to minimize loss by wind and water. Consider size of area, type of site, and cost and select one of the following:

1. Mulch anchoring tool with a series of flat notched disks that punch and anchor mulch material into the soil. A regular farm disk weighted and set nearly straight may be substituted but will not perform as well as a mulch anchoring tool. The disk should not be sharp enough to cut up the mulch.

For effective operation of the equipment, the soil should be moist, free of stones or roots, and loose enough to permit penetration to a depth of 3 inches. Operate on the contour, where practical.
2. Mulch nettings - Staple light weight paper, jute cotton, plastic, or wire nettings to the soil surface according to manufacturer's specifications.
3. Peg and twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 1 foot in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross within a square pattern. Secure twine around each peg with two or more round turns. Poles and stakes may also be used to secure brush in place.
4. Slit - With a square pointed spade, cut mulch into the surface soil in contour rows 18 inches apart.

5. Asphalt mulch tie-down - Asphalt sprayed uniformly on the mulch as it is ejected from the blower is more effective than applied as a separate operation. Apply so area has uniform appearance. Rates of application will vary with conditions. The higher the grade number assigned each type of asphalt, the higher the percentage of asphalt residue. Asphalt should not be used in freezing weather.

- a. Emulsified asphalt - Apply uniformly 0.01 to 0.08 gallons per square yard or 200 to 400 gallons per acre of rapid setting (RS-1, CRS-1, RS-2, or CRS-2); medium setting (MS-1, MS-2, or CMS-2); slow setting (SS-1 or CSS-1).

Rapid setting (RS or CRS) is formulated for curing in less than 24 hours even during periods of high humidity. Best for spring and fall.

Medium setting (MS or CMS) is formulated for curing within 24 to 48 hours.

Slow setting (SS or CSS) is formulated for use during hot, dry weather with 48 hours or more curing time.

Note - In areas of playing children or pedestrian traffic, asphalt application could cause problems of "tracking in" on rugs, damage shoes, clothing, etc. Use types RS or CRS to minimize problem.

6. Mulch can be anchored with rye for fall plantings or millet for summer plantings. Use 1/2 bushel of rye or 15 pounds of millet per acre broadcast ahead of application.