

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATIONS**

MULCHING

1. Scope

Work shall consist of applying natural and/or artificial materials that are environmentally safe such as plant residue, wood bark or chips, gravel, plastic, fabric, rice hulls, or other equivalent materials of sufficient dimension (depth or thickness) and durability to achieve the intended purpose for the required time period.

Documentation shall include:

- Purpose of the mulch
- Type of mulch material used
- The percent cover and/or thickness of mulch material
- Timing of application
- Site preparation
- Listing of netting, tackifiers, or method of anchoring
- Operation and maintenance

2. Mulching Material Requirements

Natural materials not anchored with asphalt (in order of preference):

Native grass hay with viable seed	4,000 lbs/ac
Native or introduced grass hay	4,000 lbs/ac
Legume hay	4,000 lbs/ac
Straw	4,000 lbs/ac
Wood chips	11-15 tons/ac
Corn cobs	10 tons/ac
Shredded sorghum/corn stalks	4 tons
Strawy manure	10 tons/ac

Natural materials anchored with asphalt emulsion:

Native or introduced grass hay	2,000 lbs/ac + 300 gal asphalt/ac
Straw or legume hay	2,000 lbs/ac + 300 gal asphalt/ac
Wood chips	6 tons/ac + 300 gal asphalt/ac
Wood shavings	2 tons/ac + 300 gal asphalt/ac
Corn cobs	5 tons/ac + 300 gal asphalt/ac

Commercial mulches: (Follow manufacturer's installation recommendations for specific type mulch used)

Fabric mulch	1 layer on soil surface (see Kansas Forestry Technical Note KS-9, Tree/Shrub Establishment and Maintenance Guidelines for additional information)
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Erosion control	1 layer on soil surface blankets: excelsior, curlex fiber, jute netting, other
Spun glass fibers	1,000 lbs/ac
Wood cellulose	1,500 to 2,000 lbs/ac
Hydro-Mulch fiber	1,500 to 2,000 lbs/ac
Synthetic resin	105 gal per ac

3. Installation Requirements

All areas to be mulched shall be reasonably smooth and free of rills and gullies. Mulch should be spread evenly over the surface and anchored to the soil. Natural mulch material should be free of any weed and/or grain seed to avoid competition with newly seeded areas. Mulching material shall be less than two years old.

Tackifiers, emulsions, pinning, netting, crimping, or other acceptable methods of anchoring will be used to hold the mulch in place for specified time periods.

Mulch may be applied to both seeded and unseeded areas. When applied to seeded areas, mulch shall be applied immediately after seeding. Mulch can also be applied to unseeded areas to reduce the erosion hazard if timing is not suited for seeding the area.

4. Anchoring Requirements

Mulch material must be anchored during or immediately after application. Heavy materials such as cornstalks or wood chips shall be disked in lightly. After disking, roll or cultipack to firm the mulched area. Manure with straw and heavy solids usually does not need anchoring.

For hay or straw, use a mulch crimper or similar tool with serrated straight disks that punch the mulch into the ground to a depth of approximately 2 inches. A farm disk, set straight, with a maximum spacing of 12 inches, may be used if a regular crimper is not available. Crimping operations will be done on the contour, if possible, or across the slope.

An asphalt emulsion or other type of tackifier or binder may be used to anchor mulch. The method and rate of application shall be according to manufacturer's recommendations.

Manufactured mulches such as netting, blankets, hydro-mulches, or fiberglass shall be installed according to manufacturer's recommendations. For information on weed fabric installation, see Kansas Forestry Technical Note KS-9.