

**KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, EDITION 2015**

See 15-09006 (latest revision) for SECTION 905

Delete SECTION 2110 and replace with the following:

SECTION 2110

MULCH

2110.1 DESCRIPTION

This specification covers material suitable for use as mulch.

2110.2 REQUIREMENTS

a. General Mulch Materials. Prairie hay is the preferred mulch material. Use prairie hay containing primarily Bluestem grasses, switchgrass, indiagrass and other desirable perennial grasses, normally found in Bluestem pastures. Additional materials acceptable for mulching include sudan grass hay or excelsior mulch.

Provide written evidence to the Engineer if none of the preferred/additional mulching materials are available. The Engineer may permit the use of wheat straw, oat straw, sawdust, shredded wood, peat moss or pulverized corn cobs.

Do not provide mulching material containing Sericea Lespedeza, Multiflora Rose or any noxious weed identified by the Kansas Department of Agriculture.

b. Shredded or Chipped Wood Mulch. Provide shredded or chipped hardwood, cypress or cedar wood mulch for use around trees, shrubs and other plants as designated in the Contract Documents. Chipped wood mulch is to be substantially free of mineral, organic or vegetative matter other than wood. The mulch is to have no more than one calendar year between the time of cutting and shredding or chipping and the time of application to the current project. Do not use this chipped wood mulch around small perennials and vines.

c. Composted Mulch. Use only composted wood mulch around small perennials and vines.

d. Hydraulic Erosion Control Products. Provide a Hydraulic Erosion Control Product (HECP) manufactured from non-toxic, degradable fibers combined with an organic or synthetic tackifier that contains no growth or germination inhibiting factors. The HECP shall contain a visible dye to facilitate placement and inspection of the application. The dye shall be non-toxic to plants, animals and aquatic life and shall not stain concrete or painted surfaces. All HECPs shall comply with **TABLE 2110-2**:

Property	Requirement
Organic matter	90% minimum
“Dry” Moisture Content	15% maximum
pH	5.5 – 7.5
Water holding capacity	800% minimum

HECPs will be designated by Type according to **TABLE 2110-3:**

TABLE 2110-3: HECP Types		
Type	Maximum Cover Factor (ASTM D6459) at R=162	Minimum Germination Enhancement (ASTM D7322)
A	0.20	200%
B	0.10	400%
C	0.01	400%

Other products not meeting the requirements of this subsection may be approved provided they meet the following criteria:

- (1) Contain non-toxic tackifiers that, upon drying, become insoluble and non-dispersible to eliminate direct raindrop impact on soil according to ASTM D7101 and EPA 2021.0-1.
- (2) Contain no germination or growth inhibiting factors and do not form a water-resistant crust that can inhibit plant growth.
- (3) Contain a minimum 90% organic material (ASTM D2974).
- (4) Have a rainfall event (R-factor) greater than 140 (ASTM D6459).
- (5) Have a cover factor no greater than 0.03 (ASTM D6459).
- (6) Have a minimum Vegetation Establishment of 400% (ASTM D7322).
- (7) Have a minimum Water Holding Capacity of 600% (ASTM D7367).

2110.3 PREQUALIFICATION

Hydro-mulches must be prequalified. Submit a written request to be evaluated for prequalification to the Bureau of Right of Way, Environmental Services Section. Provide the following for each brand and type of material to be evaluated:

- (1) Name, address, and telephone number of the manufacturer and the preferred contact person.
- (2) Name of product and manufacturers application recommendations.
- (3) Material Safety Data Sheets.
- (4) Results of tests from the AASHTO National Transportation Product Evaluation Program (NTPEP) or other independent testing laboratory demonstrating compliance with the above criteria.

2110.4 BASIS OF ACCEPTANCE

a. The Engineer will accept straw or hay bales based on the following:

- North American Weed Management Association (NAWMA) Standards.
- Receipt of a statement that this material “meets the North American Weed Free Forage Standards” on a Transit certificate with the vehicle tag number, the type and number of bales being transported or a Forage tag on each bale.

Contact the Kansas Department of Agriculture to request inspection or for certifications. For a Certified Weed-Free Forage/Mulch Growers Listing contact the Kansas Department of Agriculture.

b. Hydraulic Erosion Control Products will be accepted based on visual inspection of the container label to verify compliance with this specification and receipt and approval of a Type C certification as specified in **DIVISION 2600**.

c. All other mulch materials are accepted based on a visual inspection by the Engineer.