

**SECTION 724
SEED**

724-2.01 DESCRIPTION. Grass seed to provide a living vegetative cover.

724-2.02 MATERIALS. Provide seed mix as specified in the Special Provisions. Provide seed collected or harvested within 2 years of the targeted seeding date. Provide all seed in pure live seed (PLS) unless otherwise directed.

Furnish seed true of genus and species. Meet applicable requirements of the State of Alaska *Seed Regulations*, 11 AAC 34, Article 1 and Article 4, and the Federal Seed Act, 7 CFR Part 201.

The Engineer will review requests for species or cultivar substitution(s); genus substitution is not allowed. Substitution requests need to be submitted a minimum of 60 calendar days in advance of purchase.

1. **Prohibited and Restricted Noxious Weeds and Quarantined Pests.** Furnish seed and appliances certified to be free of prohibited noxious weeds or quarantined pests, and certified to contain no more than the maximum allowable tolerances for restricted noxious weeds, according to Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34).
 - a. Seed or appliances found to contain prohibited noxious weeds or quarantined pests will be rejected, according to 11 AAC 34.020(a) and 11 AAC 105-180, respectively.
 - b. Seed or appliances found to contain restricted noxious weed seed in excess of the maximum allowable tolerance per pound will be rejected, according to 11 AAC 34.020(b).

Prohibited and restricted noxious weeds are listed in 11 AAC 34.020, and can be viewed at the following URL: <http://plants.alaska.gov/invasives/noxious-weeds.htm>.

2. **Labeling.** Ensure each bag or container of individual seed species is labeled to meet requirements of 11 AAC 34.010. Do not remove labels from bags or containers.
3. **Certification.** Certify seed is free of prohibited noxious weeds and restricted noxious weeds are within allowable tolerances. Furnish to the Engineer a statement signed by the vendor identifying the lot number or lot numbers, certifying each lot of seed has been tested within the preceding nine months, by a recognized seed testing laboratory, a member of the Association of Official Seed Certifying Agency (AOSCA), or the Alaska Plant Materials Center.

Seed will be rejected if:

- a. Contains prohibited noxious weeds;
- b. Contains restricted noxious weeds above maximum allowable tolerances;
- c. Not certified as tested within the preceding nine months;
- d. Wet, moldy, or otherwise damaged in transit or storage; or
- e. Containers do not have labels or the labels have been removed.

Seed may be rejected for:

- f. Discrepancies in the lot numbers listed on the statement to the lot numbers indicated on the labels of the seed containers.

The Contractor shall immediately remove rejected seed from the project premises. If seed is rejected for containing prohibited noxious weeds or for exceeding maximum allowable tolerances of restricted noxious weeds, dispose of rejected seed according to 11 AAC 34.075(g).

**SECTION 725
FERTILIZER**

725-2.01 DESCRIPTION. Standard commercial fertilizer supplied separately or in mixtures, and furnished in moisture proof containers. Mark each container with the weight and with the manufacturer's guaranteed analysis of the contents showing the percentage for each ingredient contained therein.

725-2.02 MATERIALS. Furnish a mixture of chemical ingredients providing the total available nitrogen, phosphoric acid, and potassium required by the soil analysis or as specified in the Special Provisions. Tolerances of the chemical ingredients are plus or minus 2 percent.

No Cyanamid compounds or hydrated lime are permitted in mixed fertilizers.

**SECTION 726
TOPSOIL**

726-2.01 TOPSOIL. Furnish a natural friable surface soil without admixtures of undesirable subsoil, refuse, or foreign materials. Meet the following:

1. Reasonably free of litter and free from roots, clods, hard clay, prohibited noxious weeds, tall grass, brush, sticks, stubble, and be free-draining and non-toxic. Prohibited and Restricted Noxious Weeds are listed in 11AAC 34.020 is located at the following URL: <http://plants.alaska.gov/invasives/noxious-weeds.htm>.
2. Contain between 3 percent and 20 percent organic matter as determined by loss-on-ignition of oven dried samples according to ATM 203.
3. Grading requirements:

Sieve	Percent Passing
2 in.	100
No. 4	75-100
No. 10	60-100
No. 200	10-70

Notify the Engineer of the source of topsoil at least 30 days prior to delivery of topsoil to the project from that location. The Engineer will inspect and test the topsoil and its source before approval will be granted for its use.

Unsuitable topsoil sources may be used if, prior to delivery to the project, sufficient organic matter in the form of pulverized peat moss or rich organic soil from other sources is thoroughly mixed with the topsoil to provide a product meeting the above requirements.

Use the application rates, determined by the Engineer, of fertilizer and limestone per acre of ground area of topsoil, based on soil analysis tests so that the total natural and applied chemical constituents are as follows:

Nitrogen	45 - 65 pounds per acre
Phosphoric Acid	45 - 90 pounds per acre
Potassium	45 - 90 pounds per acre

**TABLE 726-1
LIMESTONE REQUIREMENTS**

Soil pH	Limestone, tons/acre
Above 6.0	0
5.0-6.0	1.5
Below 5.0	3.0

SECTION 727
SOIL STABILIZATION MATERIAL

727-2.01 MULCH. Use one of the following:

1. Wood Cellulose Fiber or Natural Wood Fiber. Processed wood fiber with the following characteristics:
 - a. Contains no germination- or growth-inhibiting factors.
 - b. Will remain in uniform suspension in water under agitation and will blend with grass seed, fertilizer and other additives to form a homogeneous slurry.
 - c. Will form a blotter-like ground cover on application, having moisture absorption and percolation properties and the ability to cover and hold grass seed in contact with soil.
 - d. Dyed a suitable color to facilitate inspection of its placement.
2. Ship the mulch material in packages of uniform weight (plus or minus 5 percent) and bearing the name of the manufacturer and the air-dry weight content.
3. Use a commercial tackifier on all slopes steeper than 2:1. Use the amount recommended by the manufacturer.
4. Dried Peat Moss. Partially decomposed fibrous or cellular stems and leaves of any of several species of Sphagnum mosses with the following characteristics:
 - a. Chopped or shredded to allow distribution through normal hydraulic type seeding equipment and capable of being suspended in water to form part of a homogeneous slurry.
 - b. Free from woody substances and mineral matter such as sulfur or iron and with a pH value of between 4.0 and 6.5.
 - c. Furnished in an air dry condition and contain less than 35 percent moisture by weight. Have a water holding capacity of not less than 800 percent by weight on an oven dry basis.
 - d. Non-toxic.

727-2.02 MATTING. Use one of the following:

1. Burlap. Standard weave with a weight of 3.5 to 10 oz/ yd².
2. Jute Mesh Fabric. Cloth of a uniform, open, plain weave of undyed and unbleached single jute yarn. Use yarn that is loosely twisted and not varying in thickness more than one-half its normal diameter. Furnish jute mesh in rolled strips meeting the following requirements:
 - a. Width: 45 to 48 inches, \pm 1 inch
 - b. 78 warp-ends per width of cloth (minimum)
 - c. 41 weft-ends per yard (minimum)
 - d. Weight: 20 ounces per linear yard, \pm 5%
3. Woven Paper or Sisal Mesh Netting. Woven from twisted yarns available in rolls 45 to 48 inches wide. Mesh may vary from closed to open weave, ranging from 1/8 to 1/4 inch openings. Shrinkage after wetting may not exceed 20 percent of the surface area.

SECTION 727

4. Knitted Straw Mat. Commercially manufactured erosion control blanket. Use photodegradable netting and biodegradable thread. Use straw and straw products from oats, wheat, rye, or other approved grain crops that are certified weed free of prohibited and restricted noxious weed seed and quarantined pests, according to Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34), and free of mold, or other objectionable material. When straw or straw products certified according to 11 AAC 34 are not available, use non-certified products manufactured within Alaska before products manufactured in another state, country or territory. Grass, legumes, or any other herbaceous plants produced as hay, shall not be substituted for straw or straw products. May contain coconut or fiber to reinforce the straw. Follow the manufacturer's published recommendations.
5. Woven/Curled Wood Blanket. Machine produced mat of curled wood shavings with a minimum of 80 percent 6-inch or longer fibers, with consistent thickness and the fibers evenly distributed over the entire area of the blanket. Smolder resistant without the use of chemical additives. Cover the top side of the blanket with biodegradable extruded plastic mesh.

727-2.03 STAPLES. U-shaped staples for anchoring matting, approximately 6 inches long and 1 inch wide. Machine-made: No. 11 gage or heavier steel wire. Hand-made: 12-inch lengths of No. 9 gage or heavier steel wire.