

Department of Agriculture.

Fertilizer may be dry or liquid in analysis specified or in the same ratio as specified. The standard application rate shall be 20 pounds per 1000 sq ft (0.1 kg/m<sup>2</sup>) of 10-20-10. Another analysis in the same ratio (1:2:1) may be used by varying the application rate. The soil test results will recommend corrective fertilizer application rates if needed above and beyond the standard. The Contractor shall submit the analysis to the Department. Fertilizer shall be applied in an even pattern over all areas.

**870.07 Topsoil.** Topsoil shall consist of fertile, loose, friable, loamy material that contains humus material. The topsoil may be stripped from the upper most layers of the excavation areas or imported from off the project site. The Contractor shall remove all heavy, grass, weeds and other vegetation prior to the stripping operation..

Acceptable topsoil shall contain not less than 3 percent or more than 20 percent organic matter as determined by loss on ignition of samples oven dried to constant weight at 212<sup>o</sup> F (100<sup>o</sup> C).

**870.08 Compost.** Acceptable compost shall include Ohio EPA rated Class IV compost, EQS biosolids compost or approved equal. Compost shall have a Nitrogen content of 1.4 percent or above. Compost shall be obtained from an Ohio EPA approved facility. Contractor shall provide the Engineer with the facility name and location prior to delivery.

**870.09 Seeds.** All grass seed shall be obtained by the Contractor from a dealer or grower who is registered or licensed by the State of Ohio, Department of Agriculture.

All grass seed specified shall meet the current specifications on file with the Department as to percentage purity, weed seed and germination. All grass seed to be used under this item shall be on an approved list kept on file at the Laboratory, and shall meet the requirements of these specifications. Minimum germination rates for cool season turfgrass species are listed in Table 1.

**GERMINATION RATES: TABLE 1**

Species	Minimum Percent	High Quality Percent
Kentucky Bluegrass	80	85
Fine Fescue	85	90
Perennial Ryegrass	85	90
Annual Ryegrass	85	90
Tall Fescue	85	90
Creeping Red Fescue	85	90

Seed shall be dated within the last 9 months of testing. No seed will be accepted with a date of test exceeding 9 months prior to the date of sowing. The Department reserves the right to test, reject or approve all seed after delivery. All seeds are to be furnished as separate species and cultivars, packaged or bagged separately, and labeled, tagged or marked in accordance with ORC 907.03.

Cool season turf Classes 1, 2, 3A and 3B as listed in Table 2 shall be composed of no less than two and no more than four cultivars of the same species. Newer improved cultivars should be used when possible.

**870.10 Legumes.** All leguminous seeds (crown vetch) shall be inoculated or treated with the proper amount of pure nitrogen-fixing bacteria selected for maximum vitality, not more than one year old, and mixed with sufficient water to thoroughly wet the seed. All culture shall be subject to approval.

If sown hydraulically, the inoculant shall be 4 times the rate specified by the inoculant manufacturer. Inoculant and sticking agent shall be placed directly into the slurry and thoroughly mixed immediately before seeding. Seed shall be sown as soon as possible after inoculation. Seed left standing more than 24 hours shall be re-inoculated before sowing. All seed shall be mixed on the project.

Preinoculated seed will be considered as inoculated at not more than one time the rate specified by the inoculant manufacturer. Additional inoculation will be required on preinoculated seed to comply with the above specifications.

**870.11 Native Grasses and Wildflowers.** The seed quantities indicated per 1000 square feet (m<sup>2</sup>) as listed in Table 2, Classes 4, 5 and 6 shall be the amounts of pure live seed (PLS) for each species listed. Seed which has actual pure live seed (PLS) yield according to tests less than the intended yield, will have the specified quantity adjusted to meet the intended PLS yields.

All seed supplied under Classes 4, 5 and 6 shall be seed specifically grown for the Ohio climate. Sixty days prior to seeding, the Contractor shall provide for approval, a written description for the Class 4, 5 and 6 mixtures showing the percentage by weight (mass) of each kind of seed. This description shall also include the following:

1. Name and location of the seed supplier.
2. Origin and date of harvest of each kind of seed.
3. A statement of the purity and germination of the seed.

**SEED MIXTURES: TABLE 2**

CLASS – TYPE	SEEDS	Lbs/1000 Sq Ft	Kg/1000 m <sup>2</sup>
1 Lawn Mixture(Use for areas in front of residences, commercial properties, etc. between curb and sidewalks)	Kentucky Bluegrass (Poa pratensis)	1.5	7.32
	Creeping Red Fescue (Festuca rubra)	1.5	7.32
	Annual Ryegrass (Lolium multiflorum)	1.0	4.88
	Perennial Ryegrass, turf type (Lolium perenne)	1.0	4.88
2 Roadside Mixture	Kentucky Bluegrass (Poa pratensis)	1.5	7.32
	Kentucky 31 Fescue (Festuca arundinacea var. KY 31)	2.0	9.76
	Perennial Ryegrass (Lolium perenne)	1.5	7.32
3A Slope Mixtures ( Use for flatter than or equal to 3:1	Use Mixtures 2, 3B, 3C or 4B.		