

**1. BACKGROUND:** Seed mixture composition was determined by a seed selection committee composed of representatives from the Minnesota Sod Producers Association, Minnesota Department of Transportation (Mn/DOT), University of Minnesota, and the Minnesota Crop Improvement Association. Selection criteria include University turf grass salt tolerance research, varietal performance tests, shade and drought tolerance, sod color, and other qualities as deemed relevant by the committee. MNST-12™ Sod was approved on December 13, 2011 for use on Mn/DOT projects requiring salt tolerant sod. Requirements are subject to change.

**2. SEED REQUIREMENTS:**

- 2.1. Only approved seed vendors shall mix MNST-12™ Sod seed.
- 2.2. Seed used in this mix may not contain: Ryegrass, Orchardgrass, Timothy, Bentgrass, Big bluegrass, Rough bluegrass, Smooth brome grass, Reed canarygrass, Bermudagrass, Clover, Dock, Chickweed, Crabgrass, Plantain, Black medic, Annual bluegrass, Velvet-grass and MN noxious weed seeds.
- 2.3. Seed mixtures shall be labeled by seed vendors with special tags issued by MCIA to identify conformant MNST-12™ Sod seed mixes.
- 2.4. Seed vendors must utilize the following approved seed varieties for MNST-12™ Sod seed mixtures:

MNST-12™ Sod Seed Mixture		
Common name	Approved Varieties (use of certified seed is preferred)	% in mix
Creeping red fescue (slender)	Seabreeze GT <sup>1,2</sup> , Shoreline <sup>1</sup> , Sealink <sup>1</sup>	20
Creeping red fescue (strong)	Cardinal <sup>1</sup> , Celestial, Epic, McAlpin <sup>1</sup> , Navigator <sup>1</sup>	20
Kentucky bluegrass	Bedazzled, Diva <sup>1</sup> , Moonlight SLT <sup>1</sup> , Shiraz	20
Hard, Sheeps and/or Chewings fescue (minimum of two species, each making up at least 10% of the total mix)	Hard fescue: Beacon <sup>1</sup> , Bighorn GT <sup>1,2</sup> , Little Bighorn <sup>1</sup> Sheeps fescue: Marco Polo <sup>1</sup> Chewings fescue: Radar, SR5130 <sup>1</sup>	40

<sup>1</sup> Certified seed produced in U.S. or Canada in 2010. Availability of approved varieties may be limited.

<sup>2</sup> GT indicates glyphosate tolerance.

**3. SOD PRODUCTION REQUIREMENTS:**

- 3.1. All production shall meet the Standards – Sod Quality Assurance.
- 3.2. Seeding rate - Field shall be seeded at a minimum rate of 200 lbs/acre.
- 3.3. Field shall not contain the following undesirable species in excess of 1 plant/100 sq. feet (field average):
  - 3.3.1. Other crop species - Bermudagrass, Bentgrass – *Agrostis spp.*, Clover, Orchardgrass, Redtop – *Agrostis gigantea*, Reed canarygrass, Rough bluegrass – *Poa trivialis*, Ryegrass, Smooth brome grass and Timothy.
  - 3.3.2. Weed species - Annual bluegrass – *Poa annua*, Big bluegrass – *Poa secunda*, Black medic – *Medicago lupulina*, Chickweed – *Cerastium spp.* and *Stellaria media*, Crabgrass - *Digitaria spp.*, Dock – *Rumex spp.*, Plantain – *Plantago spp.*, Velvet-grass – *Holcus spp.*
- 3.4. Re-inspection may be required to confirm completion of corrective actions necessary for the field to meet requirements.

**4. SOD QUALITY REQUIREMENTS:**

- 4.1. All sod production shall meet the Standards – Sod Quality Assurance and the Production Requirements – MNST-12™ Sod.
- 4.2. All MNST-12™ Sod sales shall be accompanied by a Certificate – Sod Quality Assurance.
- 4.3. MNST-12™ Sod shall not be sold or represented as MNST-12™ Sod unless accompanied by a Certificate – Sod Quality Assurance.

**5. FEES:** A research and promotion fee of \$.0025/square foot shall be assessed to all sod sales.