

SECTION 32 92 19 Seeding
The Vegetator® Cool Season Seed Mixture

GENERAL

1.01 SUMMARY

- A. This section specifies The Vegetator® Cool Season Seed Mixture. The Vegetator® Cool Season Seed Mixture is composed of Cover Species, Sustained Species, Pollinator Species and seed enhancement additives designed to ensure rapid and sustained vegetative cover.

- B. Related Sections: Other Specifications Sections, which directly relate to the work of this Section include, but are not limited to the following:
 - 1. *Section 01 57 00 – Temporary Erosion and Sediment Control*
 - 2. *Section 02 24 23 – Chemical Sampling and Analysis of Soils*
 - 3. *Section 31 00 00 – Earthwork*
 - 4. *Section 31 25 00 – Erosion and Sedimentation Controls*
 - 5. *Section 31 25 14.13 – Hydraulically-Applied Erosion Control*
 - 6. *Section 31 91 00 – Planting Preparation*
 - 7. *Section 32 01 90.16 – Amending Soils*
 - 8. *Section 32 92 00 – Turf and Grasses*
 - 9. *Section 32 92 19.16 – Hydraulic Seeding*

1.02 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions. Include required substrate preparation, list of materials, and application rate.

- B. Certifications: Manufacturer shall submit a letter of certification that the product meets or exceeds all technical and packaging requirements and is made in the USA.

1.03 DELIVERY STORAGE AND HANDLING

- A. Deliver materials and products in factory labeled packages. Store and handle in strict compliance with manufacturer's instructions and recommendations. Protect from weather damage, excessive temperatures, and construction operations.

PRODUCTS

2.01 ACCEPTABLE PRODUCTS & MANUFACTURER

- A. PROFILE Products LLC
750 Lake Cook Road – Suite 440
Buffalo Grove, IL 60089
Toll Free: 800-545-1755
Fax: 815-468-7450
www.profileproducts.com
info@hydrostraw.com

2.02 MATERIALS

- A. The Vegetator® Cool Season Mixture shall be a blend of Cover Species, Sustained Species, Pollinator Species and seed enhancement additives designed to ensure rapid and sustained vegetative cover produced by Profile Products LLC.

2.03 COMPOSITION

- A. All components of The Vegetator® Cool Season Seed Mixture shall be pre-packaged by the manufacturer to assure both material performance and compliance with the following values. No chemical additives with the exception of hydraulic mulch, fertilizer, soil neutralizers, biotic soil media, and bio stimulant materials should be added to this product.
- B. Seed shall be treated with Enhanced Seed Technology™. This treatment shall provide a biological inoculant food system, micronized natural fertilizer, seed booster, and an enhanced seed encapsulation.
- C. The Vegetator® Cool Season Seed Mixture shall consist of the following:
 - 1. Sustainable, Cover and Pollinator seed species, species and variety substitutions may be required based on availability. Seed specifications shall meet the following:
 - i. (SS) - Sustainable Species: 24% +/- 5%
 - ii. (CS) - Cover Species: 20% +/- 5%
 - iii. (PS) - Pollinator Species: 6% +/- 3%
 - iv. Inert Material: Less than 2% from Seed.
 - v. Inert Material: No greater than 50% from Enhanced Seed Technology
 - vi. Other Crop Seed: Less than 2%.
 - vii. Weed Seed: Less than 1%.

2. Species Category Key:

Category	Description
SS - Sustainable Species	A variety of perennial species that promote species diversity, deep root structure and vegetative resiliency to provide a low maintenance, permanent stand of dense vegetation.
CS – Cover Species	Rapid germinating species for accelerated ground cover and root establishment; critical for early erosion prevention. Fast establishment adds biomass to soils and may include nitrogen fixing species to aid the establishment of Sustainable Species.
PS – Pollinator Species	Designed to attract pollinators such as insects, birds and small mammals. Selected to improve the ecosystem by enhancing pollinator habitat.

3. Category – Variety / Species / Scientific Name Identification:

Category	Variety / Species	Scientific Name
SS	Elise Orchardgrass	<i>Dactylis glomerata</i>
CS	Buckwheat	<i>Fagopyrum esculentum</i>
SS	Fawn Tall Fescue	<i>Festuca arundinacea</i>
SS	Tetragain Perennial Ryegrass	<i>Lolium perenne</i>
CS	Triticale	<i>Triticosecale</i>
CS	Browntop Millet	<i>Urochloa ramosa</i>
PS	Crimson Clover	<i>Trifolium incarnatum</i>
CS	Hairy Vetch	<i>Vicia villosa</i>
CS	Diakon Radish	<i>Raphanus sativus var. Longipinnatus</i>
PS	Yellow Blossom Clover	<i>Melilotus officinalis</i>
CS	Trophy Rape Brassica	<i>Brassica napus</i>
PS	White Clover	<i>Trifolium repens</i>
SS	Climax Timothy	<i>Phleum pratense</i>
SS	Fults II Akaligrass	<i>Puccinellia distans</i>

2.04 APPLICATION RATE

- A. The Vegetator® Cool Season Mixture by Profile Products LLC should be applied at a rate of 50 lb/ac (56 kg/ha) for drill seeding or 100 lb/ac (112 kg/ha) when applied through a hydroseeder.
- B. Seeding rates are based upon seed count. The Vegetator® Cool Season Mixture shall provide a seed count of no less than 130 seeds/ft² (1,400 seeds/m²)

2.05 PACKAGING

- A. Each bag shall contain a Seed Analysis Tag providing the following information:
 - 1. Mixture name
 - 2. Lot number
 - 3. Purity analysis for each variety / species by percent
 - 4. Origin for each variety / species
 - 5. Other crop seed percentage
 - 6. Inert from seed percentage
 - 7. Inert from Enhanced Seed Technology™ percentage
 - 8. Weed Seed percentage
 - 9. Noxious weed seed percentage
 - 10. Germination test date no more than 12 months old
 - 11. Net weight
 - 12. Manufacturer information including AMS Number
- B. Bags: Net Weight – 25 lb (11.3 kg)
- C. Pallet Quantity: 80 bags / pallet or 1 ton (907 kg) / pallet.

EXECUTION

3.01 SOIL TESTING

- A. Soil samples shall be taken and sent to a third-party, independent lab for analysis and in compliance with Section 02 24 23 – *Chemical Sampling and Analysis of Soils*, if applicable.
- B. The tests shall include analysis and interpretation of results.
- C. The soil testing methods used shall be compliant with recognized agronomic testing standards, as outlined in Section 02 24 23 – *Chemical Sampling and Analysis of Soils*, for revegetation of disturbed sites.
- D. Soil Analysis shall include results for:
 - 1. Soil pH
 - 2. Soluble Salts
 - 3. Excess Carbonate

4. Organic Matter
 - i. Nutrient Readings for:
 1. Nitrogen, Phosphorus, Potassium
 2. Magnesium, Calcium, Sodium, Manganese, Sulfur, Zinc, Copper, Iron, Boron
 - ii. Cation Exchange Capacity
 - iii. Percent Base Saturation Sodium
- E. ProGanics® BSM, HydroStraw® All In 1 BFM, BioPrime™, JumpStart™, Aqua-pHix™, NeutraLime™ Dry, DirtRX™ or other amendments shall be specified according to Section 32 01 90.16 – *Amending Soils* and applied with a hydroseeding slurry at Manufacturer recommended rates based on soil test results.

3.02 EROSION CONTROL SELECTION

- A. Use Profile Soil Solutions Software (PS³) or other relevant software program to facilitate design and selection of erosion control techniques.
- B. Separate analysis shall be conducted for slope and channel erosion protection criteria, if necessary.
- C. Selection of erosion and sediment control techniques shall be detailed and in compliance with Section 31 25 00 – *Erosion and Sedimentation Controls*, if applicable.

3.03 SUBSTRATE AND SEEDBED PREPERATION

- A. Examine substrates and conditions where materials will be applied. Apply product to geotechnically stable slopes that have been designed and constructed to divert runoff away from the face of the slope. Do not proceed with installation until satisfactory conditions are established.
- B. Depending upon project sequencing and intended application, prepare seedbed in compliance with other specifications under Section 1.01B.

3.04 INSTALLATION

- A. Strictly comply with manufacturer's installation instructions and recommendations. No chemical additives with the exception of hydraulic mulch, fertilizer, soil neutralizers, biotic soil media, and biostimulant materials should be added to this product. Install materials at the application rates based on seed counts.
- B. Application Rate: The Vegetator® Cool Season Mixture should be applied at a rate of 50 lb/ac (56 kg / ha) for Drill Seed or 100 lb/ac (112 kg/ha) for Hydroseeding.

3.05 INSPECTION AND MAINTENANCE

- A. All inspections and maintenance recommendations shall be conducted by qualified professionals consistent with the owner, engineer/specifier and regulatory entity(s) expectations.
- B. Initial inspections shall insure installations are in accordance with the project plans and specifications with material quantities and activities fully documented. Refer to Section 32 92 00 – *Turf and Grasses* for any additional details.
- C. Subsequent inspections shall be conducted at pre-determined time intervals and corrective maintenance activities directed after each significant precipitation or other potentially damaging weather or site event.

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