



ROYAL OAK FARM BLUEBLOOD™ CONTAINER MIX  
Section 02\_\_\_\_\_

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings, General Provisions of the Contract and Division-1 Specifications sections, apply to this section.

1.2 WORK IN THIS SECTION

- A. Section includes:
  - 1. Preparation and use of container mix for woody ornamentals.
- B. Substitutions: Substitute products will be considered only under the terms and conditions of Section \_\_\_\_\_.

1.3 DEFINITIONS

- A. Compost: Shall be a mature and stable humic soil amendment produced through the aerobic controlled decomposition of organic materials, shall have been produced at a facility permitted by the Virginia Department of Environmental Quality, and shall be tested in accordance with the U.S. Composting Council's (USCC) Seal of Testing Assurance (STA) Program.
- B. Container Mix: Plant growth media produced by homogeneously blending organic bulking agent and/or sand with stable, mature compost tested in accordance with the USCC STA Program to produce a soil-less growth media suitable for the growth of transplanted woody ornamentals vegetation.

1.4 RELATED WORK IN OTHER SECTIONS

- A. The following Sections contain requirements that may relate to this Section:
  - 1. Section 02\_\_\_\_\_ - Trees, Plants, Groundcovers
  - 2. Section 02\_\_\_\_\_ - Seeding

1.5 REFERENCES

- A. United States Department of Agriculture (USDA) Soil Texture System of Classification
- B. U.S. Composting Council, Test Methods for the Examination of Compost and Composting (TMECC)
- C. ATTRA - National Sustainable Agriculture Information Service, "Potting Mixes for Certified Organic Production", Horticulture Technical Note, September 2004, ATTRA Publication #IP112
- D. Fitzpatrick, G., "Compost Utilization in Ornamental and Nursery Crop Production Systems", in *Compost Utilization in Horticultural Cropping Systems*, edited by P.J. Stofella and B.A. Kahn, Lewis Publishers, 2001
- E. Robbins, J. A., "Growing Media for Container Production in a Greenhouse or Nursery", University of Arkansas, Division of Agriculture, 2005

1.6 SUBMITTALS



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- A. Comply with requirements of this Section, Project Manual requirements and Conditions of the Contract.
- B. The following submittals are required for portions of the Work specified in this section.
  - 1. Compost Technical Data Sheet: Submittal prepared by an independent laboratory certified by the USCC to analyze the compost used to create a manufactured soil or a planting soil in accordance with the USCC's Test Methods for the Examination of Compost and Composting (TMECC); such analysis must be dated no earlier than six (6) months from the date of submittal
  - 2. Materials Qualification Test: Submittal prepared by an independent soils testing laboratory to indicate the proposed materials comply with contract document requirements.
  - 3. Samples: Submit samples of all topsoil products proposed to be used. Include a list of sources. Samples shall be submitted in one-gallon containers.

PART 2 - PRODUCTS

2.1 COMPOST

- A. Composted material shall be Royal Oak Farm Blueblood™ Garden Compost or equivalent, and must be in compliance with VA Department of Environmental Quality's specifications, which appear in 9 VAC 20-80-330; plus the following additional requirements.
- B. Additional Requirements
  - 1. The compost must be registered with the USCC STA program.
  - 2. The carbon to nitrogen ratio of the compost shall be below 25:1.
  - 3. The compost shall have an organic matter content of 35% to 65%% as determined by "loss on ignition" test method.
  - 4. Submit one-gallon sample, source, and Compost Technical Data Sheet from the supplier to the Owner's Representative for approval prior to installation.

2.2 SAND

- A. Coarsely graded sand meeting the specifications for ASTM C-33 Fine Aggregate with a Fineness Modulus greater than 2.75 shall be selected.
  - 1. Sands shall be clean, sharp natural sands. High limestone sands should not be used in container mix formulations intended for use with ericaceous plants.
  - 2. Sand used should meet the following particle size distribution:

Category	Particle Size	Units	Specifications
Very coarse sand – fine gravel	1.0-3.4 mm	%	< 10
Medium – coarse sand	0.25-1.0 mm	%	≥ 60
Fine sand	0.15-0.25 mm	%	< 20



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Very fine sand	0.05-0.15 mm	%	< 5
Silt	0.002-0.05 mm	%	< 5
Clay	< 0.002 mm	%	< 3
Total fines	0.002-0.15 mm	%	< 10

2.3 PINE BARK FINES

- A. Bark fines used in Blueblood™ Container Mix shall be derived from pine bark and composted for at least four (4) weeks. Bark fines shall be sized so that between 70% and 80% will have a particle size between 0.024” and 0.375” (0.58mm – 9.5 mm), and the remainder of the volume shall have a particle size less than 0.024” (0.58 mm).

2.4 CONTAINER MIX

- A. A mixture of compost, meeting requirements of Section 2.1 above, an organic bulking agent and sand per USDA soil texture classification. The mixture shall consist of 55% - 60% compost, 30% - 35% pine bark fines and 5% - 15% sand, and shall contain between 20% and 25% organic matter. The mix shall be free of weeds, herbicides, petroleum-based materials, any other deleterious materials, rocks, and debris, and shall be Royal Oak Farm Blueblood™ Container Mix, or equivalent.
- B. The container mix shall have a pH of between 5.5 and 8.0, a carbon:nitrogen ratio less than 20:1, a bulk density of between 0.30 and 0.35 g/cm<sup>3</sup> (dry basis) or 0.60 and 1.20 g/cm<sup>3</sup> (wet basis), pore space between 5% and 30%, water-holding capacity between 20% and 60%, soluble salts less than 3.0 dS/m, and a cation exchange capacity between 10 and 100 meq/100 cm<sup>3</sup>.
- C. Submit one-gallon sample, source, and letter of certification from the supplier to the Owner and/or Owner’s Representative for approval prior to installation.

PART 3 – EXECUTION

- 3.1 Containers used for transplant production should be free of soil and organic plant debris from previous usage. The containers should be thoroughly pressure washed (e.g. water stream from hose) prior to sanitizing them. Do not wash the containers near any area involved with planting, production of plants, or storage of equipment or soil media used for plant production.
- 3.2 Do not use pond, ditch or recycled water for watering transplants. Avoid excess irrigations and fertilizer amounts.
- 3.3 Harden the plants slightly, prior to transplanting time by reducing the amount of irrigation.
- 3.4 To transplant, carefully dig up the small plants with a knife or wooden plant label. Let the group of seedlings fall apart and pick out individual plants. Gently ease them apart in small groups which will make it easier to separate individual plants. Avoid tearing roots in the process. Handle small seedlings by their leaves, not their stems. Punch a hole in the Royal Oak Farm Blueblood™ Container Mix into which the seedling will be planted. Make it deep enough so the seedling can be put at the same depth it was growing in the



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seed flat. Small plants or slow growers should be placed 1 inch apart and rapid-growing, large seedlings about 2 inches apart. After planting, firm the soil and water gently. Keep newly transplanted seedlings in the shade for a few days, or place them under fluorescent lights. Keep them away from direct heat sources.

- 3.5 Do not establish cull piles and trash areas in the vicinity of the plant production areas.

END OF SECTION