

UNITED STATES DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE  
APPALACHIAN PLANT MATERIALS CENTER  
ALDERSON, WEST VIRGINIA

NOTICE OF RELEASE OF THE CULTIVAR  
'AUGUSTA' ORCHARDGRASS

The Natural Resources Conservation Service (NRCS), United States Department of Agriculture (USDA) announces the release of the cultivar 'Augusta' orchardgrass (*Dactylis glomerata* L.) for the eastern United States. It has been assigned accession number 9007238 by NRCS and also evaluated as KY-2086 as designated by the Quicksand, Kentucky Plant Materials Center.

**Collection Site Information:** 'Augusta' orchardgrass was collected on June 1, 1979 by Wayne Hypes in Augusta County, Virginia. The collection site was a naturalized stand of orchardgrass growing on a Sequoia-Berks soil; a well-drained, shallow, low fertility, acid soil with medium to low water holding capacity that occurs on hillsides and ridgetops. The collection site is located in USDA Major Land Resource Area (MLRA) 147 (Northern Appalachian Ridges and Valleys) and USDA Plant Hardiness Zone 6b.

**Description:** Orchardgrass is a perennial cool season grass that exhibits a bunch or clump growth habit that produces in an open sod. It is native to Europe, but is widely distributed and has become naturalized across the United States and is an important cultivated grass for pasture and hay production. Culms typically occur in large clumps that range from two to four feet in height. Orchardgrass leaf blades are typically long and narrow and may be up to three feet long and one-eighth to three-eighths of an inch wide. The root system is typically densely fibrous. Orchardgrass is typically more drought tolerant than other cool season forage grasses of equal forage quality; e.g. timothy and Kentucky bluegrass. The drought tolerance of orchardgrass is due to its extensive root system. It will persist on shallow, moderately fertile soils and be moderately productive.

**Method of Selection:** In 1979, 67 accessions were assembled: 24 naturalized collections from Virginia, West Virginia, and western Maryland; 38 foreign introductions; and 5 cultivars. Two plantings were established for initial evaluation: one at the plant materials center in Quicksand, Kentucky on a moist, well-drained soil and another in Grant County, West Virginia on a droughty soil in a low rainfall area (an average of 30 inches precipitation annually). Both plantings were evaluated for traditional criteria and all plantings were clipped to evaluate forage production and recovery from clipping. The accession 9007238 was selected based on its superior disease resistance, drought tolerance, forage production, seed yield, and stand persistence. A seed production field was established at Quicksand, Kentucky in 1988. The field was culled in 1989 to remove plants that were prostrate and diseased and plants that exhibited little top growth or tillering. The University of Kentucky evaluated 9007238 in five forage variety trials at

four different locations between 1994 and 2000. Accession 9007238 had forage yields equal to the best cultivars in each trial.

**Ecological Considerations and Evaluation:** This release is from a species native to Europe but in widespread agricultural use in the United States. There are many orchardgrass cultivars in the commercial seed market, but none are well adapted to droughty sites in the humid East. Eastern pastures and meadows are frequently sown to tall fescue. Tall fescue is drought tolerant, but its forage quality is less than orchardgrass and stands tend to be monocultures due to its growth habit. The majority of Eastern pastures and meadows have been sown to 'Kentucky 31' tall fescue, a cultivar highly susceptible to infection by an endophytic fungus that produces a toxin harmful to livestock and wildlife. 'Augusta' orchardgrass is an excellent replacement for tall fescue since it is endophyte free and develops an open stand compatible with legumes and forbs.

The test plots supporting this release were in close proximity to natural and introduced plant ecosystems. There was no evidence of negative impacts or invasion into those ecosystems. 'Augusta' orchardgrass was documented as 'OK to Release' when evaluated through the "Worksheet for Conducting an Environmental Evaluation of NRCS Plant Releases".


**Anticipated Use:** The anticipated uses of 'Augusta' orchardgrass are: cool season forage for pasture and hay, cool season grass component in cool season grass and legume mixtures for wildlife habitat, and critical area stabilization on areas where seed mixtures are used or succession to woody species is desired. Its extensive fibrous root system is an excellent adaptation for drought tolerance. Its open growth habit allows establishment with legumes and forbs and allows succession to occur.

**Area of Adaptation:** 'Augusta' orchardgrass is adapted to the eastern United State (MLRA L, M, N, P, R, and S) and USDA plant hardiness zones 4 through 7. It is tolerant of droughty and well-drained soils, but does not tolerate poorly-drained soils. 'Augusta' tolerates moderately acid soils, but does not tolerate alkaline, saline, or extremely acid soils.

**Availability of Plant Materials:** The Appalachian Plant Materials Center in Alderson, West Virginia will maintain fields to produce breeders and foundation seed and will distribute foundation seed to commercial growers. Growers may produce certified seed from the foundation seed.

**Prepared by:** This notice of release of the cultivar 'Augusta' orchardgrass was prepared by John Vandevender, Manager, Appalachian Plant Materials Center in Alderson, West Virginia and Robert Glennon, Natural Resource Specialist, USDA, Natural Resources Conservation Service, Washington, DC.

Approvals for the Notice of Release of 'Augusta' Orchardgrass



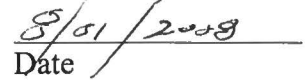
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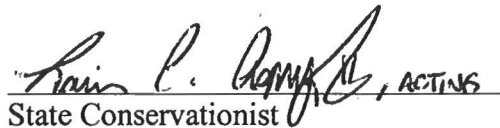
Ecological Sciences Division

United States Department of Agriculture

Natural Resources Conservation Service

Washington, DC

  
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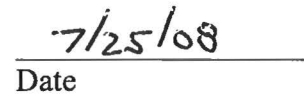
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State Conservationist

United States Department of Agriculture

Natural Resources Conservation Service

Morgantown, West Virginia

  
Date