

## A Conservation Plant Released by the Natural Resources Conservation Service Cape May Plant Materials Center, Cape May, NJ

# 'Cape' American Beachgrass

Ammophila breviligulata Fern.



'Cape' American beachgrass (Ammophila breviligulata) is a cultivar released from the Cape May Plant Materials Center (PMC) in Cape May, NJ in 1970. Photo by, USDA NRCS Plant Materials Center, Cape May, NJ.

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### **Description**

'Cape' American beachgrass (*Ammophila breviligulata*) is a native, cool-season, perennial bunch grass that grows 2–3 ft tall most frequently on beach foredunes. The seed heads are a 10 in long, spike-like panicle appearing from late July to August. It grows vigorously from rhizomes and can withstand heavy deposits of sand. It has smaller ligules, longer seed heads, and wider leaves than the similar-looking European beachgrass (*Ammophila arenaria*).

#### Source

This material originated from naturally occurring sand dune systems in Cape Cod, Massachusetts. PMC staff developed and released this geno-type under the cultivar name 'Cape' in recognition of its place of origin, Cape Cod.

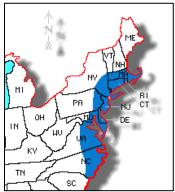
### **Conservation Uses**

'Cape' American beachgrass is well suited to trap sand and prevent beach dune erosion due to its wide leaf surface area and its stemmy habit. This ability to trap sand is important for stabilizing wind-blown sand, creating new dune systems, and initiating natural succession in critical areas, gravel mines, mining spoil, coal gob piles, and many sites with hot/dry/infertile soils.

In addition to supporting an industry vital to the region, these dunes protect land, property, and wildlife habitat during hurricanes and storms. American beachgrass is a seed-source and habitat for many migratory and overwintering birds along the Mid-Atlantic coast. The Ipswich sparrow, an overwintering bird of special concern in New Jersey, uses beachgrass as a seed-source, along with snow buntings. Short-eared owls, piping plovers, herring and laughing gulls, and vesper sparrows use beachgrass stands for habitat (Eastman, 2003).

### Area of Adaptation and Use

The NJ PMC developed 'Cape' American beachgrass for use specifically in the Northeast and Mid-Atlantic coasts from Massachusetts south to North Carolina.



Map of 'Cape' American beachgrass area of adaption and recommended area of use.

For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Web site.

### **Establishment and Management for Conservation Plantings**

Growers plant vegetative divisions with a vegetable planter when establishing American beachgrass production fields. Use a spade or dibble bar for beach planting. Planting units should consist of two stems (culms), per 8-inch deep planting hole. Space each planting unit (two stems) 18 inches apart within and between rows. Each culm should be dormant, firm, and have at least one healthy growing node. Trimming the leaves and roots facilitates the process of planting with a

transplanter. Plant in full-sun, on a well-drained soil, from October 1 to March 30 in the Mid-Atlantic region. A slow-release fertilizer (10-10-10) can be used split in 2–3 applications starting no earlier than 1 month after planting to encourage more vigorous growth. Fertilization should only occur in the establishment year. Keep production fields weed-free for best results.

For more information, see *Beachgrass Planting Guide for Volunteers and Municipalities*, posted on our website provided below.

### **Ecological Considerations**

There are no known ecological concerns regarding use of this plant. Ergot (Claviceps purpurea) fungus can infest seed heads. Beachgrass scale and aphids can affect stems and leaves (Eastman, 2003). Circular areas of dead beachgrass "fairy rings" tend to develop in a planting installation site after approximately 4-7 years due to a variety of secondary disease vectors after the beachgrass stand has first lost vigor. This loss of vigor occurs naturally over time as beachgrass becomes thatchy, and sand can no longer accumulate around the base of the plant. This weakens the plant, making it susceptible to a Marasmius spp. fungus in the roots and basal stems of the plant (Warren and Lucas, 1972) and/or a root-knot nematode (Meloidogyne sasseri). Beachgrass tends to be less successful in stable stands further inland, and requires intermittent sand burial to encourage rhizome growth and plant survival, vigor, and spread. Beachgrass tends to be more invasive on the West Coast of the United States.

### **Seed and Plant Production**

Seed production is poor and seed is not viable. Growers increase the plant by splitting vegetative material. The only appropriate time to plant is during the cool, dormant period from October to March. Summer plantings will lack vigor or fail altogether. One culm planted properly in a well-prepared production field can yield up to fifty stems in one growing season. Rhizomes can extend 5–8 ft a year underground (Eastman, 2003). In natural stands, these rhizomes can grow towards the surf where wave action breaks them apart and disperses them for colonization elsewhere.

### **Availability**

For conservation use: For sources of supply for 'Cape' American beachgrass or for more information on the availability, planting and use, contact your local NRCS office or Soil and Water Conservation District.

For seed or plant increase: 'Cape' American beachgrass is an eastern US cultivar release. Contact the Cape May Plant Materials Center to obtain foundation material for the purpose of large-scale increase.

### **Literature Cited**

Eastman, J.A. 2003. The book of field and roadside: open-country weeds, trees, and wildflowers of Eastern North America. Stackpole Books. Mechanicsburg, PA. p. 27–30.

Warren, T. B. and L. T. Lucas. 1972. Histopathology of Marasmius Blight of American Beachgrass. Phytopathology 63:725–728.

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For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <a href="http://www.nrcs.usda.gov/">http://www.nrcs.usda.gov/</a>, and visit the PLANTS Web site <a href="http://plants.usda.gov">http://plants.usda.gov</a> or the Plant Materials Program Web site <a href="http://www.plant-materials.nrcs.usda.gov">http://www.plant-materials.nrcs.usda.gov</a>

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