

AMERICAN BEACHGRASS

Ammophila breviligulata Fern.

Plant Symbol = AMBR

Contributed by: USDA NRCS Plant Materials
Program



USDA NRCS National Plant Materials Center
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Uses

American beachgrass is the predominant plant species utilized along the Atlantic and Great Lakes coastlines for initial stabilization of frontal sand dunes. It has also been utilized on extreme, non-dune sites, some having high salinity levels and droughty conditions, for erosion control and initial cover.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description

American beachgrass is a leafy, spreading, strongly rhizomatous grass, producing up to of 100 stems per clump annually. This cool season perennial grass species will spread up to 6-10 feet annually by subsurface rhizomes. It will grow to 2 or 3 feet tall, tolerating annual over-topping accumulations of sand up to a foot. The leaves have deeply furrowed upper surfaces and smooth undersides. The long narrow leaves may become rolled or folded when exposed to intense heat, excessive sunlight, or drying winds.

Another moisture conservation attribute of American beachgrass is that the rough upper leaf surface, containing gas exchange openings (stomata), will orient itself away from winds. The seedhead emerges in late July or August as a spike-like cluster at the tips of long stalks. This multi-flowered panicle extends about ten inches above the leaves. Seed production is usually poor.

Adaptation and Distribution

This grass is a native of the mid-Atlantic coastal region from Maine to North Carolina and the Great Lakes. It will grow on sandy or other coarse textured soils on inland sites with or without high salinity, given that supplemental fertilizers are applied. This grass does not tolerate much soil moisture before it begins showing signs of stress.

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

Establishment

Vegetative establishment of American beachgrass, with dormant stem divisions, from October 15 to April 1, is effective. Seed production is sparse so it is not normally considered as an establishment option. Beachgrass culms must be planted at least 8 inches deep. This prevents plants from drying out, as well as being blown out by the wind. A tiling or ditching spade is an excellent tool for opening the planting hole.

For erosion control and cover applications, two or more 18 to 24 inch long stems are mechanically or hand placed, 18 to 24 inches apart, per planting hole. If the site is exposed to severe wind erosion, spacing needs to be reduced to 12 inches and rows staggered. Utilizing an 18" spacing will require 38,720 culms per acre.

For nursery production, the soil should be well worked prior to planting. Single stems (12" to 18" long) should be planted one foot apart in rows, spaced wider than 30 inches to match cultivation equipment. Mechanical planting equipment is most productive under these site conditions for areas greater than 1/2 acre.

Management

Properly applied fertilizer is the key to good vigorous initial growth of newly established stands of American beachgrass. Applications providing

between 30 and 60 lbs. of nitrogen per acre annually are adequate. These annual fertilizer amounts are more effective if split into a spring and early summer application. The spring application should be applied at least 30 days after establishment, but no earlier than April 1. Once the stand is established, the rate of fertilizer applied can be reduced by half, or applied only when the stand appears to be weakening.

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Pedestrian or vehicular traffic that bends or breaks the culms will seriously damage or kill the plants. On frontal dunes, areas devoid or with declining communities pose the threat of blowout. Replanting stands of beachgrass where openings or voids have developed should be an annual maintenance procedure, and exclusion of traffic with fencing is strongly advised.

Cultivars, Improved, and Selected Materials (and area of origin)

There are two named varieties available for conservation purposes: 'Cape' (Massachusetts), and 'Hatteras.' 'Cape' was selected and developed by the Cape May PMC then released to the commercial market in 1971. 'Hatteras' is an older variety, released by the North Carolina Agricultural Experiment Station in the early 1960's. It is better adapted for southern climates. 'Cape' is considered the industry's standard, and has been proven to outperform all other varieties for conservation applications from Maine to North Carolina. Foundation stock of 'Cape' is available to commercial nurseries from the Cape May PMC in New Jersey. Certified material is available to the public from numerous commercial nurseries.

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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