DUNE PLANTING

WHEN: SATURDAY NOV.12, 2011
11:00 AM
WHERE: POINT PLEASANT BEACH MUNICIPAL BEACH AT MARYLAND AVE.

(THIS IS A RAIN 0R SHINE ACTIVITY. IN CASE OF **EXTREME** SEVERE WEATHER WE WILL RESCHEDULE FOR FOLLOWING DAY)

SPONSORED BY C.R.A.B.

CITIZENS RIGHT TO ACCESS BEACHES

IN CONJUCTION WITH THE BOROUGH OF POINT PLEASANT BEACH, POINT PLEASANT BEACH ENVIRONMENTAL COMMISSION and the POINT PLEASANT BEACH GREEN TEAM

FOR MORE INFORMATION CONTACT:

crabnj@yahoo.com

C.R.A.B.

Citizens' Right to Access Beaches

732-361-CRAB (2722) • www.crabnj.org

P.O. Box 1064 • Point Pleasant Beach, NJ 08742

MARYLAND AVE MUNICIPAL BEACH DUNE PLANTING PROJECT
November 12, 2011

PROJECT OVERVIEW:
Hurricane Irene this past August caused extensive damage to the dune area along the Maryland Ave. Beach. We were only able to obtain **500** dune grass plugs and we also have **1** roll of fencing available. We will concentrate on the area just south of the beach entrance as our area of remediation. A large amount of old dune fencing came down during the storm some of which we were able to remove at the Clean Ocean Action Beach Sweep a few weeks ago. Hopefully we can clean up the remainder on project day.

This year's project will restore a portion of the dune area along the southern dune line of the Maryland Ave. Municipal Beach in Point Pleasant Beach. Project will include replacement of dune fencing and planting of dune grass supplied by the County of Ocean and the Borough of Point Pleasant Beach along the 25ft. Environmental Buffer area. Planting in accordance with local and State DEP regulations using the guidelines from the *Coastal Research Center* (attached).

PROJECT TIME/ DATE INFORMATION:
DATE: NOVEMBER 12, 2011 RAIN OR SHINE
(In the event of ***severe*** **inclement weather** we will postpone until the following day)
TIME: 11AM.

PROJECT PARTICIPANTS:
Project sponsored by Citizens' Right to Access Beaches C.R.A.B. as a community project in conjunction with the Borough of Point Pleasant Beach, The Point Pleasant Beach Environmental Commission, and the Green Team, Point Pleasant Beach High School Environmental Club, and Point Pleasant Borough High School Environmental Club. All interested members of the public are invited to participate.

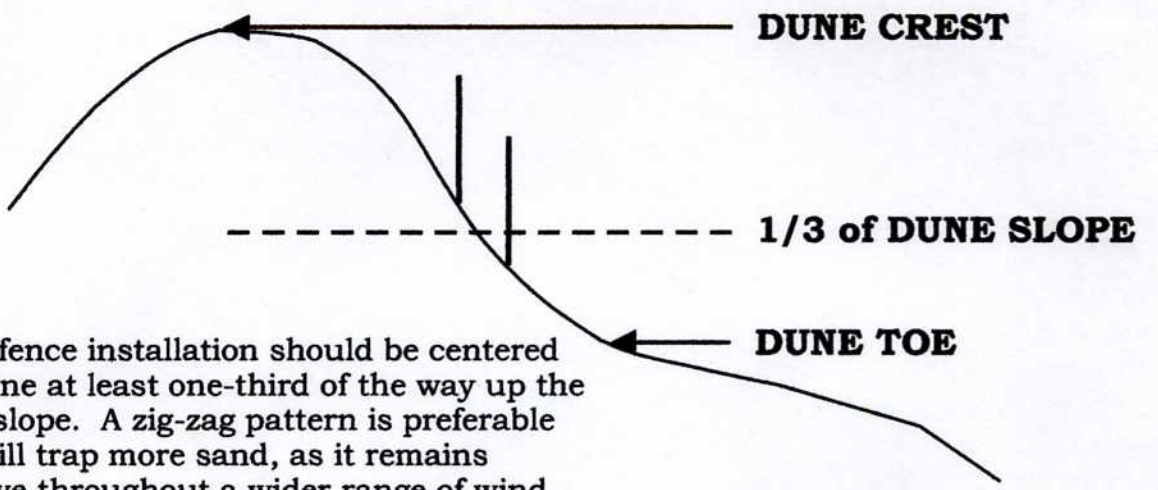
EQUIPMENT:
C.R.A.B. will provide work gloves, some broom handles with measurement markings for planting depths and spacing. Fencing staples/nails and some rakes, shovels, posthole diggers, hammers. Participants are encouraged to bring their own broom handles or equivalent items to assist in planting.

Bottled water and refreshments will be available for all volunteers.

If you have any questions please contact C.R.A.B. at 732- 361-2722 or email at crabnj@yahoo.com

Thank you for your interest and support.

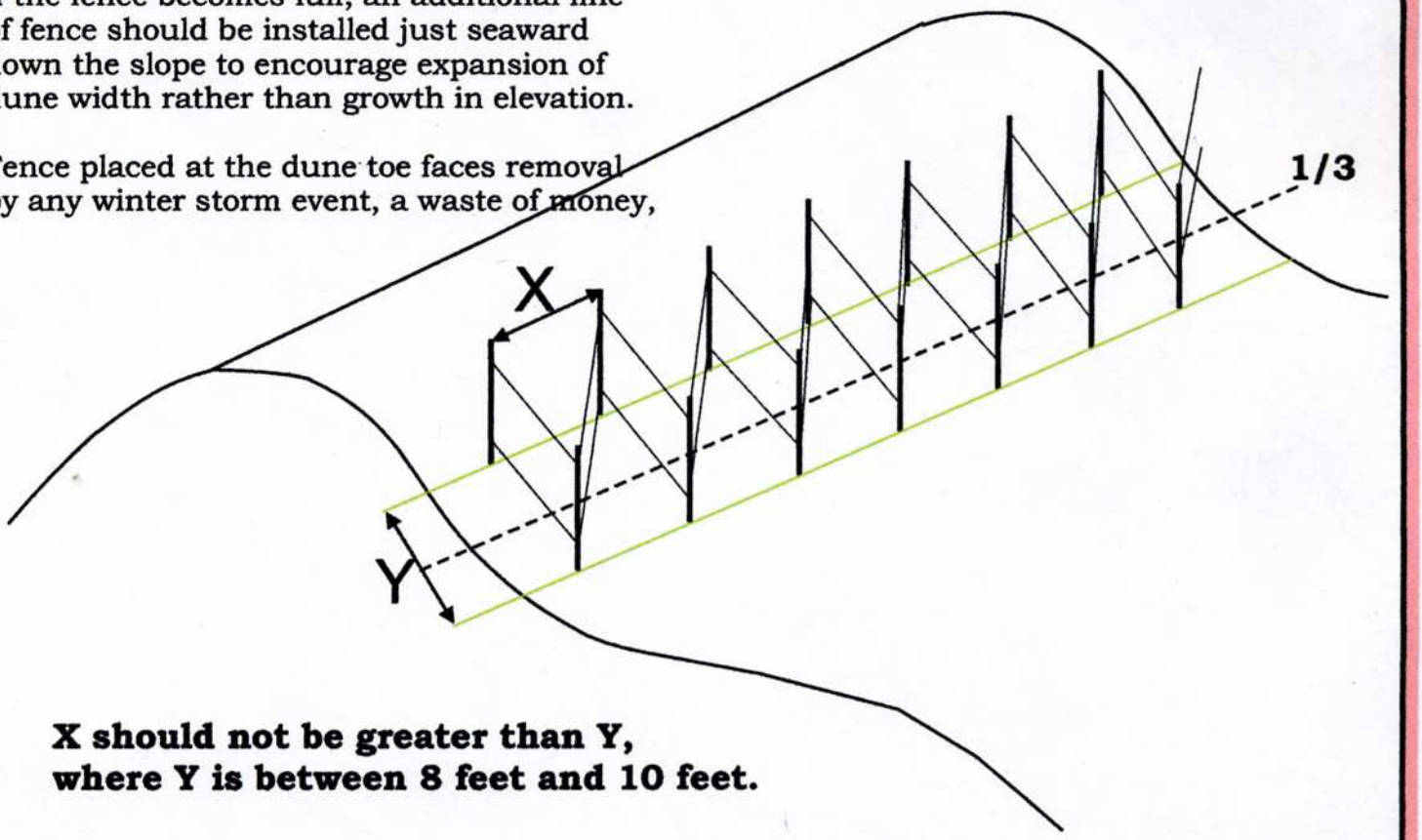
Optimal Dune Fence Placement
(Initial Fence Placement)



Dune fence installation should be centered on a line at least one-third of the way up the dune slope. A zig-zag pattern is preferable and will trap more sand, as it remains effective throughout a wider range of wind directions. The zig-zag pattern should be implemented as shown below.

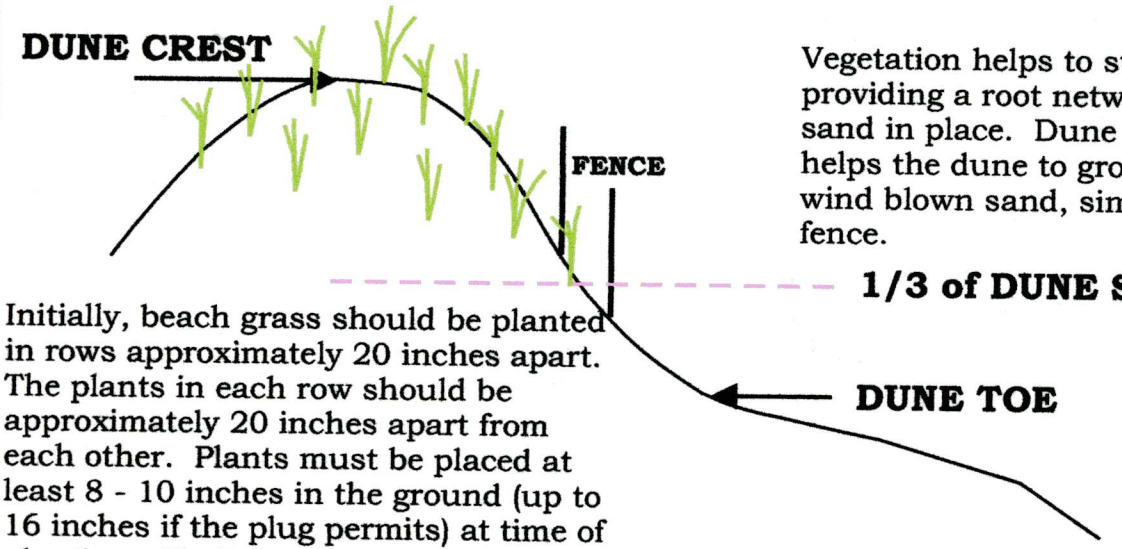
If the fence becomes full, an additional line of fence should be installed just seaward down the slope to encourage expansion of dune width rather than growth in elevation.

Fence placed at the dune toe faces removal by any winter storm event, a waste of money,



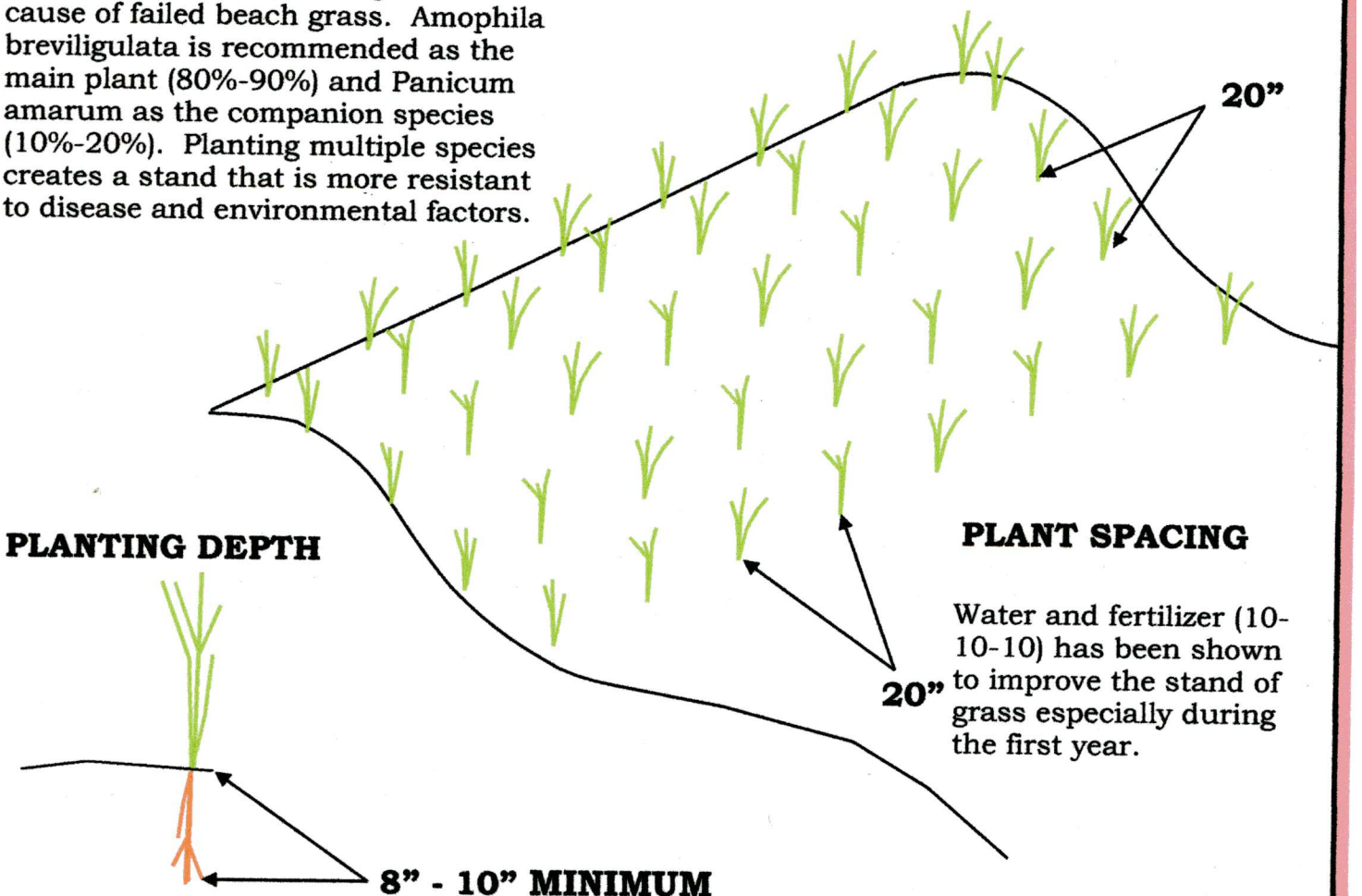
X should not be greater than Y, where Y is between 8 feet and 10 feet.

Optimal Beach Grass Planting
(Initial Planting)



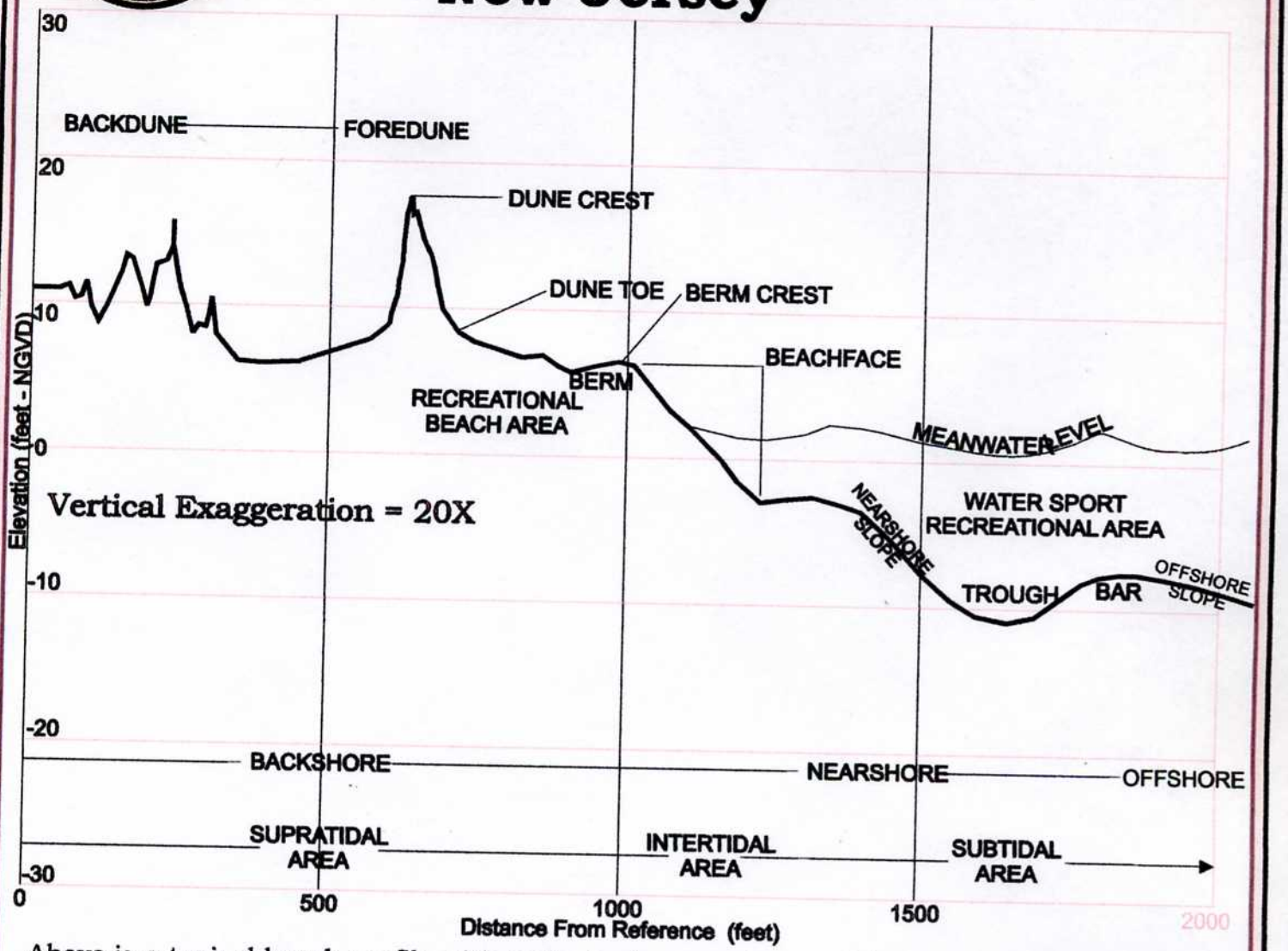
Vegetation helps to stabilize dunes by providing a root network to hold the sand in place. Dune vegetation also helps the dune to grow by trapping wind blown sand, similar to a dune fence.

Initially, beach grass should be planted in rows approximately 20 inches apart. The plants in each row should be approximately 20 inches apart from each other. Plants must be placed at least 8 - 10 inches in the ground (up to 16 inches if the plug permits) at time of planting. Shallow planting is the #1 cause of failed beach grass. Amophila breviligulata is recommended as the main plant (80%-90%) and Panicum amarum as the companion species (10%-20%). Planting multiple species creates a stand that is more resistant to disease and environmental factors.

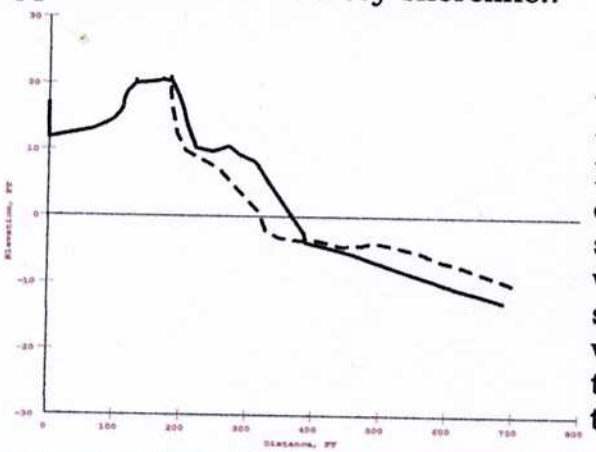


Water and fertilizer (10-10-10) has been shown to improve the stand of grass especially during the first year.

Typical Beach Profiles in New Jersey



Above is a typical beach profile with major features and zones labeled. No beach will show every aspect of this diagram at all times, but it illustrates all important features that appear on the New Jersey shoreline..



Seasonal Variations

The pair of profiles to the left show some of the typical seasonal beach profile changes. The dashed line profile is the result of a winter season, where ocean conditions moved material offshore. The solid line profile is the result of a summer season, where ocean conditions moved sand onshore. The summer profile has a well developed berm and wider beach and dune, while the winter profile has this beach material present in the offshore region of the profile.

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Plant Fact Sheet

AMERICAN BEACHGRASS

Ammophila breviligulata Fern.

Plant Symbol = AMBR

Contributed by: USDA NRCS Plant Materials Program

USDA NRCS National Plant Materials Center
Beltsville, MD

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 course 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.

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 exlusion 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 out perform 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.

Prepared By & Species Coordinator:
USDA NRCS Plant Materials Program

Edited: 31Jan2002 JLK; 30may06jsp

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>