USDA United States Department of Agriculture

NRCS Natural Resources Conservation Service

Plant Materials Program Technology Update October 2003

# Beachgrass Planting Guide for Municipalities and Volunteers

## Cape May Plant Materials Center

Proudly Serving the Conservation Needs of the coastal Mid-Atlantic Region in Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Maryland, Delaware, Virginia and North Carolina.....since 1965 and still growing!

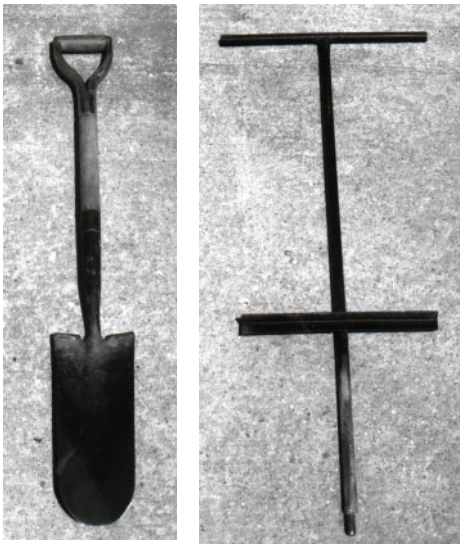
### Purpose:

The purpose of this technical note is to provide specific guidance on the installation of American beachgrass (*Ammophila breviligulata*). This information is appropriate for the planting of sand dunes as well as for the stabilization of wind transported sands on inland sites.

### Audience:

It is intended that this information will serve local units of government, citizen groups, volunteers, environmental commissioners and any other potential users of American beachgrass.

### Typical Installation Tools:



Pictured to the left are two tools that are considered common for the installation of American beachgrass in sand dune ecosystems. They are a straight blade shovel and a "pogo" style planter. During times of adequate rainfall and good soil moisture, the pogo planter is the tool of choice. During dry times, the small hole normally made by the pogo planter will instantly backfill with sand once the tool is pulled out. The shovel then becomes a necessity.

### Preparing for Volunteers; Site Visit:

Leaders of volunteer groups need to go out to the planting site the day before planting crews arrive to assess field moisture conditions. This site assessment will enable crew leaders to determine which type of tools will be needed. When planting sites are very dry, a larger hole will need to be made using a flat tipped shovel. This will require greater physical exertion and time. Group leaders will need to realize that volunteers will spend more time per planting unit which will result in a decrease of total planting units installed per work day.

Contributors:

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***Photos: W. Skaradek, NRCS*** *unless noted*

## Assessing Beachgrass Planting Stock Quality; Understanding American beachgrass:

The United States Department of Agriculture Natural Resources Conservation Service released a superior cultivar of American beachgrass named 'Cape'. 'Cape' is considered quintessential in stabilizing coastal shorelines throughout the mid-Atlantic region.

American beachgrass is grown in rows much like many crops. Growers are typically farmers that have decided to grow beachgrass to either augment or replace typical farm crops such as corn and soybeans.

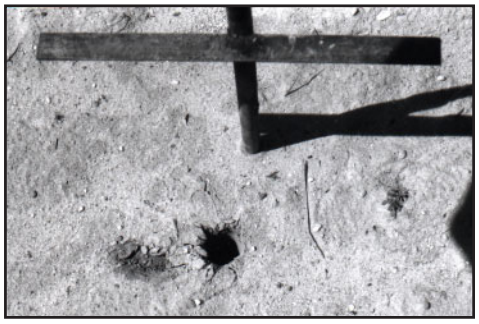
After being"lifted"or undercut by farm machinery, "hills"of plants are hauled in by truck or wagon to a processing building and broken down into individual stems or culms for sale.

The photo to the right depicts a variety of culm or stem thickness and straightness. This is due to the differences in growth from sunlight, nutrients and water availability as it differs between the outside edge of the hill and the center of the hill.

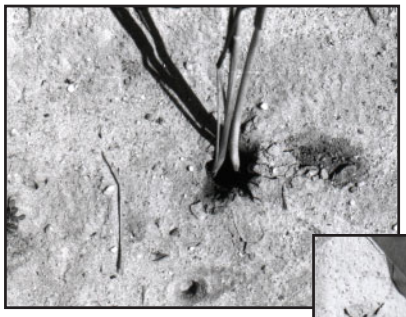
## Assessing the Stock Quality:

The photo to the right is a close up of a single culm of beachgrass. The growth of the plant is not dependent on the presence of roots, but rather the little "node" or growing point located at the bottom of the plant. When you squeeze the bottom end of the culm, it should be hard, not soft. A hard stem indicates sufficient energy stored to facilitate the growth of the plant. Spindly and soft stems should either be discarded or combined with a good stem in a common planting hole. Stock should be cut to 16-18" for installation in the dunes.

## Successful Planting Tips:



Good quality beachgrass stock will only grow well when planted properly. Using the pogo planter as an example, the planter is pushed into the dunes to form a hole. The hole should be 8”-10” deep, to allow the living node at the tip of the stem to reach deeply into the sand where more moisture for growth is present. This also places the growth node below the surface of the sand where day-time temperatures can get hot enough to kill plant roots. This planting depth helps to compensate for storm induced sand losses.



Two culms of beachgrass should be placed deep in each hole. When pushing them in, avoid the "snapping" off of tips and growing points. More than two stems per hole does not appear to be more beneficial and in some cases appears to be detrimental to the survival of planting.

Once the planting units are placed to an adequate depth, the soil will need to be firmly packed around the planting unit to improve soil/plant contact and reduce the amount of air voids that will wick away moisture from the plant.

## The NRCS Conservation Legacy

For generations across this nation, the USDA NRCS Plant Materials Program has been developing plants and commercial availability of plants for the conservation of natural resources at the local level.

The Cape May Plant Materials Center is proud to have developed many outstanding native plants for stabilizing and enhancing the sand dunes and the quality of life in the coastal mid-Atlantic region. These materials, when placed in to the loving hands of American citizens, ensure a better life for this nation and all who visit.

***Photos below: USDA-NRCS PMC Files***

‘Cape’ Production Field

Volunteers, making a difference.

‘Cape’ providing sand stabilization

## References

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Ocean City Dune Stabilization Committee. 1998. The Utility and Beauty of Coastal Dunes.

Miller, C.C. and W.B. Skaradek. 2001. Standard for Creating Sand Dunes. USDA Natural Resources Conservation Service.

Skaradek, W.B. 2001. Occurances of Die-Out of American Beachgrass. USDA Natural Resources Conservation Service.

## Acknowledgements:

Special thanks are extended to the talented USDA-NRCS Plant Materials Program scientists who went before us. Their dedicated efforts in developing “the sciences” associated with native plants for coastal ecosystems have served as a platform of excellence from which we grow and mature in knowledge today.

## Web Resources:

Cape May Plant Materials Center Homepage:
*http://plant-materials.nrcs.usda.gov/njpmc/index.html*

American Beachgrass Plant Information:
*http://plants.usda.gov/cgi_bin/plant_profile.cgi?symbol=AMBR*

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**To learn more** about the Plant Materials Program, visit our Web site at:
**http:// plant-materials.nrcs.usda.gov**