

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PLANTING GUIDE

'Emerald Sea' shore juniper

This planting guide is provided to assist in the establishment of demonstration plantings of 'Emerald Sea' shore juniper.

Description - Shore juniper, *Juniperus conferta*, is a semi-prostrate creeping shrub that spreads vigorously by above ground shoots. Single plants may attain a spread of eight feet across. This low-growing or trailing evergreen shrub is usually less than two feet tall and forms a mat. Mass plantings produce a uniform and dense ground cover.

Shore juniper, native to Japan, is more salt tolerant than other junipers. The small brown fruit matures in the fall. This juniper is propagated from stem cuttings taken in late winter and rooted in the greenhouse.

Emerald Sea shore juniper has pale greenish-blue evergreen needles that are softer than eastern red cedar and attain a length of one-half to one inch. Emerald Sea was selected because the needles retain their blue green color during the winter better than other cultivars. It has demonstrated excellent salt tolerance along the mid-Atlantic coast.

Adaptation - Emerald Sea has proven to be winter hardy as far north as Plant Growth Zone 6 (-10° to 0°F) and is climatically adapted along the east coast from Massachusetts to North Carolina. It grows in medium fertile, slightly acid, loamy or sandy soils and has good drought tolerance once the plants are established. This juniper requires well-drained soils, is well adapted to very sandy sites and grows best in full sun. Like other shore junipers, Emerald Sea will tolerate salty soils and salt spray.'

Establishment and Maintenance - Even though Emerald Sea is adapted to harsh sites, good planting stock and planting techniques are important. Use only hardened-off container-grown plants. When planting in poor sandy soils or on back dune areas, mix two quarts of organic material in the planting hole as it is filled. Fertilize each plant with one-teaspoon of commercial 10-10-10 or a soluble fertilizer such as 15-30-15. Apply mulch around the plants to conserve moisture and control weeds.

Container-grown plants can be planted anytime, but best results are obtained from late fall and early spring planting dates. Emerald Sea planted on the back dunes or other open areas should be protected from the effects of wind for the first two years. During the year of establishment, plants will benefit from frequent irrigation to thoroughly wet the soil mass. This is especially necessary in sand during periods of inadequate rainfall.

Maintenance of soil fertility is necessary to promote vigorous growth. Except in very fertile soils, apply one teaspoon of 10-10-10 fertilizer (or any equivalent) around each plant when growth begins in the spring, another in mid-summer and a third teaspoon in early fall. Mulch should be maintained around the plants until a dense cover is formed.

Uses:

Individual Plants - One use is to maintain them as individual plants. They can be restricted to a very small size by pruning or allowed to spread into specimen as large as 8 x 10 feet.

Dense Ground Cover - When planted on two foot centers, the plants should form a dense uniform mat in two years in most soils. Wider spacing will require more time to develop a complete ground cover but, also, will result in a solid mat. Little maintenance other than fertilizer and occasional weeding is required after a complete ground cover is established.

Foundation Planting - A row of Emerald Sea planted at the base of a building makes an excellent foundation planting. When planted on two-foot centers, the plants should make a continuous cover by the summer of the second year. The width can be controlled by pruning.

Trailing Effect - This plant can be draped over retaining walls or planter boxes to soften the effect of harsh, straight or massive lines. Establish the plants at the edge of the wall and train the branches to drape over the wall. When established in planters, the trailing branches can be trained to cover the sides of the box.

Cape May Plant Materials Center
May 26, 1978

PLANTS FOR CONSERVATION IN THE NORTHEAST

USDA - SOIL CONSERVATION SERVICE

CONSERVATION PLANT SHEET-59

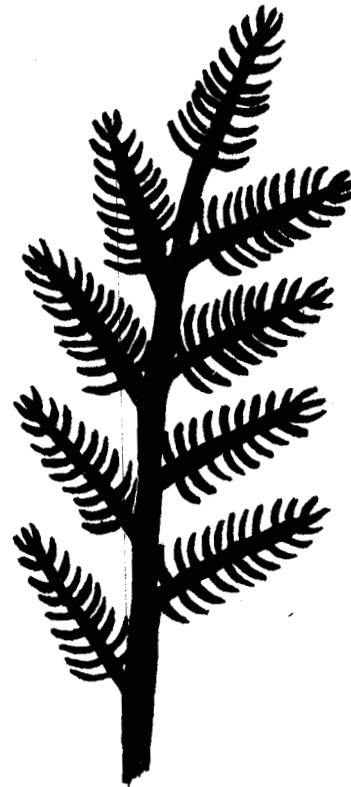
SHORE JUNIPER
(*Juniperus conferta*)

Uses: Shore juniper is especially adapted for planting on sand dunes in the vicinity of the seashore, where other junipers cannot be grown successfully. It has good salt tolerance and is well adapted to sandy areas.

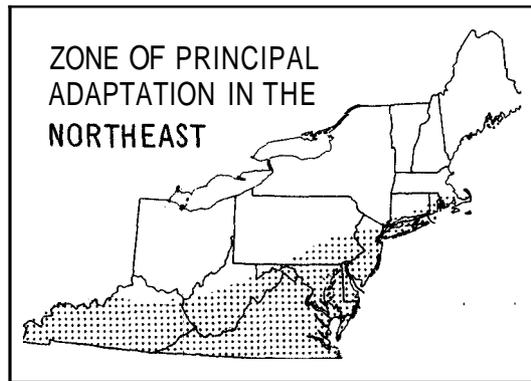
Around buildings) it is used for mass, bank, or border plantings and often as a foreground in front of taller plant groups. Draping over walls and planters, shore juniper creates a pleasing effect.

Description: Shore juniper is a low-growing or trailing shrub, up to one foot tall, and mat forming. Its pale greenish-blue leaves are evergreen; the needles, to 1 inch in length, are softer than red cedar. It maintains good winter color.

Varieties: The only variety recommended for use in the Northeast is 'Emerald Sea'. Most plants on the market are not identified by variety name. Reliability of quality plants is increased by buying 'Emerald Sea'.



Adaptation: Shore juniper grows well on a variety of soils from loams to very sandy soil. It is well adapted to seashore plantings. It performs best in a full sun. For poor sandy soils in exposed situations, shore juniper may be the best juniper to consider. Plantings benefit from partial wind protection and at least some topsoil around their roots.



Establishment: Shore juniper is propagated by cuttings taken in the fall or winter and treated with a root-inducing substance. Even though shore juniper is well adapted to harsh sites such as seashore plantings, care must be taken when it is established. Only container-grown plants should be used. Each planting hole should have about one gallon of peat moss mixed into it before planting. Water well the first year. Fertilize with a small handful of 10-10-10 fertilizer or the equivalent, a month or so after transplanting. Mulching with bark or woodchips will help conserve moisture and restrict weed invasion.

Plant spacing should be about 18-24 inches. If planted correctly, well fertilized, and mulched, it will make a full ground cover in two years.

Emerald Sea juniper displays diverse landscape qualities

By Cluster R. Belcher

EMERALD SEA shore juniper, *Juniperus conferta* 'Emerald Sea', is a low-growing or trailing evergreen shrub, one to two feet tall and mat forming. Its pale greenish-blue needles are evergreen, softer than red cedar and attain a length of a half to one inch. The needles of Emerald Sea retain the blue-green color during the winter better than other cultivars. Mass plantings produce a uniform and dense ground cover. It has demonstrated excellent tolerance to salt spray along the midAtlantic coast.

Conservation Plantings

The collection, which led to the release of Emerald Sea, was made by the US Department of Agriculture's Agricultural Research Service on low coastal sand dunes near Honshu, Japan, in 1967. Subsequently, propagating material was provided to the USDA Soil Conservation Service Plant Materials Center, Beltsville, Md. Since 1968, this collection has been evaluated in numerous conservation plantings along the midAtlantic coast. It was cooperatively released to commercial producers by the Soil Conservation Service and Agricultural Research Service in 1972.

Emerald Sea has proved to be winter hardy in plant growth zone 6 (-5° to 5°) and is climatically adapted along the coast from Massachusetts to North Carolina. Additional plantings are being made to determine more precisely its exact range of adaptation.

Drought Tolerance

Emerald Sea grows in medium fertile, slightly acid, loamy or sandy soils and has good to excellent drought tolerance. It requires well-drained soils. It has excellent adaptation to very sandy areas and grows best in

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full sun. For poor sandy soils in exposed locations, Emerald Sea is a highly desirable plant. Because of this characteristic, it is well adapted to sea-shore plantings.

The soft texture and pale green color make Emerald Sea useful for a host of landscaping situations. It can be used for bank or border plantings and often as a border in front of taller plant groups. Emerald Sea creates a pleasing effect when allowed to drape over walls and planters.

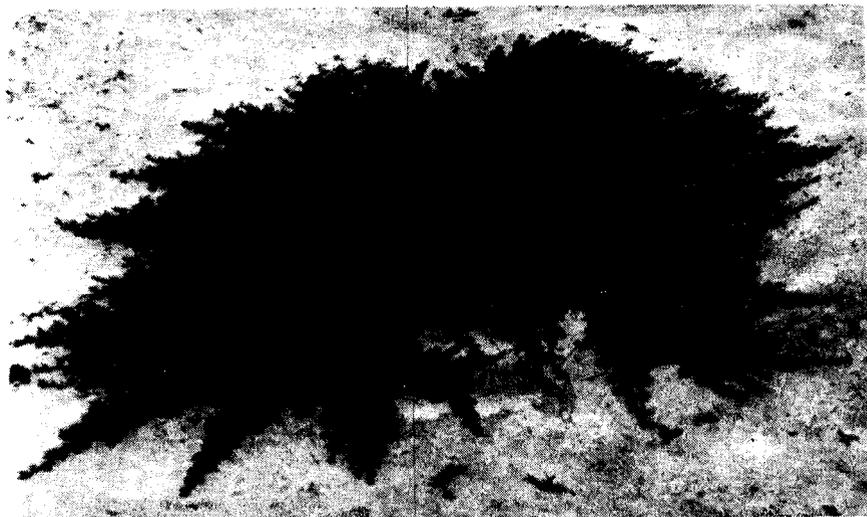
Full Ground Cover

Even though shore juniper is well adapted to harsh sites, such as sea-shore plantings, care must be taken when it is established. Only container-grown plants should be used. If well planted, fertilized and mulched, it will make full ground cover in two years. On sand dunes, some protection from wind during the first and second year is recommended. Adding organic matter to the planting hole is also recommended when Emerald Sea is used on sand dunes.

Shore juniper is propagated by cuttings taken in the winter or early spring and treated with a root-inducing substance. Containerized plants that are one or two years old are desirable for transplanting. Survival is usually better with one-year-old stock.

Parent Plants

The SCS Cape May Plant Materials Center, Cape May Court House, N.J., is now responsible for maintaining the parent plants. Limited quantities of unrooted cuttings will be made available to nurserymen through their local Soil and Water Conservation Districts for commercial production of planting stock and further testing. Additional information can be obtained by contacting local offices of the USDA Soil Conservation Service. They are listed under US Government in the telephone directory.



Juniperus conferta 'Emerald Sea'