

Argusia gnaphalodes

Family: Boraginaceae

Sea Lavender, Bay Lavender, Beach Heliotrope, Sea Rosemary



Sea lavender leaves in late April

Sea Lavender

Synonyms (Discard Names): *Mallotonia gnaphalodes*, *Messerschmidia gnaphalodes*, *Tournefortia gnaphalodes*

Origin: South Florida; Bahamas; Caribbean; Mexico

USDA Zones: 10a through 11 (Minimum 32°F)

Growth Rate: Slow

Salt Tolerance: High

Drought Tolerance: Extremely high when established

Soils: Acidic; alkaline; sand; loam

Nutritional Requirements: Low

Potential Major Pests: Root rot in excessively moist soils

Typical Dimensions: Height, 2-5 feet; spread, 6-20 feet

Propagation: Seeds, cuttings and ground layering

Motility: Slowly spreading, forming large mounds from limbs that root when touching the ground or covered by sand

Human Hazards: None

Uses: Beach reclamation; border; hedges; mass planting; ground cover; large planters

Availability: Somewhat available in native nurseries.



Sea lavender used as beach erosion control ground cover. See Table 1 for the soil analysis of this beach sand.

Geographic Distribution

Sea lavender is native to Southeast Florida, the Bahamas, Mexico, Puerto Rico, Virgin Islands, and other islands of the Caribbean. It has been introduced to and now naturalized in Hawaii, extreme Southern California, and other regions throughout the tropical world.

Ecological Function

Sea lavender is a shoreline erosion control plant. It helps to trap sand and stabilize the dunes on which other plants can become established.

Growth Habit, Morphology and Reproduction

Sea lavender is an evergreen shrub that normally grows to 5 feet tall by forming handsome multi-branched clumps. Many are smaller when exposed to direct salt spray, but they often grow very wide. In southern-most Florida, sea lavender may form a small tree. Its foliage and blossoms are purportedly aromatic but no odor could be detected from broken leaves and flowers distributed to a small group of Master Gardeners. The leaves are simple, entire, thick, linear to spatulate, whitish to silvery gray, and densely-silky tomentose (matted hairs). Fully elongated leaves are typically 3 3/4 inches long, but may be up to 5 inches long, and 1/4 inch wide. Lower on the stem the leaves are discernable alternate but towards the stem tip they squeeze together to form a terminal tuft. The flowers are small, with five white petals. The flowers are part of an inflorescence made up of 2 to 4 densely-flowered cymes. The inflorescence is often spiraled. Despite the small size, there are many inflorescence which provide a nice showy display. The fruit is a small, ovoid drupe up to 1/4 inches wide. It is yellowish or white and matures black. In South Florida, this evergreen plant may flower and fruit intermittently throughout the year. Propagation is by seed or ground-layering.



Old growth on Sanibel Island. This clump is approximately 4.5 feet tall and 20 feet wide. Sanibel Island has typical high salt content, sandy and limestone soil conditions. Sea lavender thrives in this environment. See Table 1 for the analysis of this Sanibel soil in which the sea lavender is growing.

Planting and Maintenance Guidelines

This is one of the finest ornamental plants with resistance to salt spray. It prefers full sun. Plant it from 4 to 6 feet apart in a well-drained, sandy or light loam soil. In one study, optimum transplant success on non-irrigated beach sites was achieved using organic top dressing composed of municipal solid waste compost. Keep the soil slightly moist until it is established. Once established, it is extremely drought tolerant. Sea lavender may be used as a tall ground cover or shaped into a short hedge. It requires little or no maintenance. The plant does not respond well to woody tissue pruning and when pruned some of these stems may not releaf. However, the plant is not likely to grow above 5 feet as its stems are not wholly self-supporting. They drop to the ground for extra support and motility. Large clumps may exhibit bare spots in the canopy as the plant continues to spread. This can be easily remedied by replanting in those areas. Root rot is probably the biggest problem in irrigated landscapes. Keeping the foliage dry will help to maintain it in good condition. Sea lavender is listed as an endangered species by the Florida Department of Agriculture and Consumer Services. It is an underused plant and is sure to stand out in any landscape. Availability is limited.



New growth of sea lavender in April. The plant measures 34"x36"



The same plant in August, 16 months later. The plant now measures 46"x68" and was not pruned.

The plant grows partially shaded by a live oak that supplies an ample amount of litter. See the Table 1 for the soil analysis of this site.



Branching Habit of sea lavender. Foliage is concentrated at the branch tips.



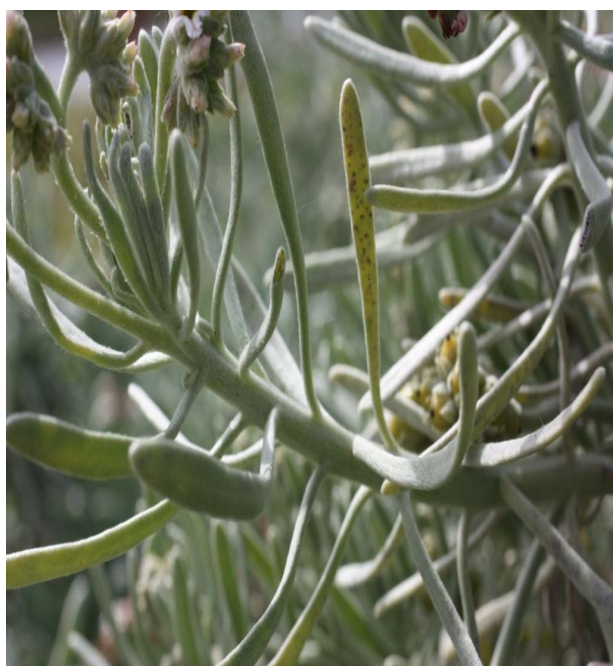
Old Wood: As a long-lived perennial shrub, sea lavender develops woody trunks and limbs.

Soil Types

Soil samples were taken from three sites in which sea lavender were successfully growing. The samples were sent to the soil analytical laboratory at the University of Florida for analysis. The results show that sea lavender is capable of growing in very high pH soils, soils low in phosphorus and potassium and soils with a wide organic matter content. The species also does well in most acidic garden soils. The high calcium content is reflective of the origin of most South Florida soils. The desired ranges for phosphorus, potassium and magnesium apply to vegetable crops growing in sandy, mineral soils.

Table 1. pH, Soil Nutrient Concentrations, Organic Matter, and Electrical Conductivity in three soils supporting *Argusia ganaphalodes* growth.

Soil Type	pH	Phosphorus ppm	Potassium ppm	Magnesium ppm	Calcium ppm	Organic Matter (%)	EC ds/m
Beach	9.3	10	15	75	> 6704	0.13	0.14
Old Growth	7.0	278	47	198	> 2472	1.80	0.18
New Growth	7.7	56	40	168	> 4492	4.20	0.08
Desired Range	6.0-7.0	16-30	36-60	20-30		< 2% found in most FL soils	< 2.0



Leaves: Simple, entire, alternate, narrow, velvety, whitish to silvery gray, densely tomentose.



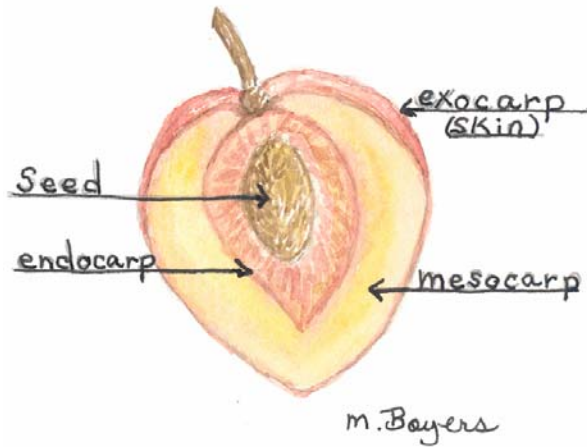
Leaves: At the stem tips the leaves squeeze together to form a terminal tuft.



Helicoid Cyme: An inflorescence in which the branches are on one side only of the rachis.



Flowers: Five-petals, white with dark red throats, borne on an inflorescence of 2 to 4 short densely-flowered helicoid (spiral) cymes.



Drupe: A fleshy or dry, usually 1-seeded fruit, the seed enclosed in a stony pit is known as the endocarp. The fleshy portion is generally referred to as the mesocarp and the "skin" constitutes the exocarp. Examples are almond, cherry, mango, olive, longan, peach, plum, apricot, palms.



Fruits: A small drupe, yellow, or white when immature, about 1/4 inches long, with a characteristic black dot.

This fact sheet was reviewed by Peggy Cruz, Lee County Extension; Cathy Feser, Collier County Extension and Jenny Evans, Sanibel-Captiva Conservation Foundation and Dr. Hector Pérez, Environmental Horticulture Department, UF Gainesville. Drawings by Marty Boyers, Master Gardener.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. U.S. Department of Agriculture, Cooperative Extension Service, University of Florida, IFAS, Florida A. & M. 9/2009.