Propagation & Establishment

Pelican black mangrove can be established successfully from container grown plants propagated by seed, vegetative cuttings, or air layering. Stands can be established by direct seeding but survival has generally been poor. Seeds are harvested November through December. Seeds of black mangrove are desiccant sensitive and should not be allowed to dry out. Seeds should be soaked in water for 24 hours to remove the fleshy pericarp. If planting is delayed, seeds should be floated in water (fresh or saline) in layers no greater than 3 inches. If storage is necessary, seeds should be placed in a well aerated cool environment of moist peat or moist burlap bags at 45-50° F (7-10° C). Germination declines in relation to the duration of storage. Highest germination is obtained by planting freshly harvested seed. Seeds can be planted to most any plant container size. Seeds will germinate in fresh or saline water at temperatures above 65° F (18° C). Seeds are placed flat on top of the growing medium. Burying the seed unit in the growing medium has resulted in poor germination. Greenhouses or other warm sheltered environments are needed for seedling production. Pelican black mangrove can be successfully established in protected environments where they are not exposed to heavy wave action. The best time to transplant Pelican is early spring. Only salt hardened plants should be used for planting.

Availability

For more information on availability and use of Pelican black mangrove, contact the Natural Resources Conservation Service, Golden Meadow Plant Materials Center at the address, phone number, or web sites provided below.

Golden Meadow Plant Materials Center
438 Airport Rd
Galliano, LA 70354
(ph) 985-475-5280
(fax) 985-475-6545

Visit our web sites at:
http://www.la.nrcs.usda.gov
http://plant-materials.nrcs.usda.gov

February 2000

Pelican
Black Mangrove
(Avicennia germinans)

USDA NRCS
Natural Resources Conservation Service

Golden Meadow
Plant Materials Center
Galliano, Louisiana

Pelican
Black Mangrove

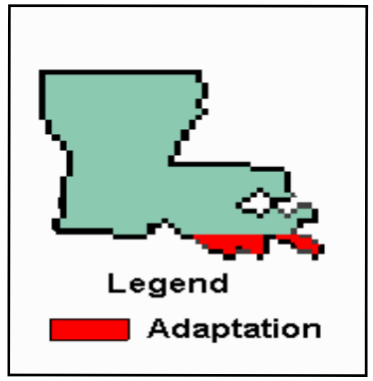
Pelican black mangrove (*Avicennia germinans* (L.) L.) is a subtropical shrub that grows in salt marshes near high tide elevation. It is often found growing in association with smooth cordgrass (*Spartina alterniflora*). Pelican black mangrove serves as sediment stabilizers, contributes leaf biomass to the marine food chain and detridal cycle, and provides habitat for numerous biological organisms. It is an important vegetative component for pelican nesting habitat found on Louisiana's barrier islands. Pelican is recommended for planting on intertidal flats and shorelines of Louisiana's saline marshes, shorelines of protected shallow bays, and marshy barrier islands east of the Atchafalaya River.

Description

Pelican black mangrove is an evergreen shrub growing 4 to 9 feet tall. Its leaves are opposite, simple, leathery, dark green and glabrous (smooth) above, and grayish with a tight felt like pubescence beneath. Clusters of small sessile flowers with white petals are borne on the leaf axils or terminally on the twigs. The fruit is a flat, asymmetric, velvety 1-seeded pod. The fruit is dark green and glabrous beneath the velvety pericarp. The pneumatophores are important in trapping debris and sediment. The leaves are important to the detritus cycle.

Adaptation

Pelican black mangrove is a woody shrub adapted to intertidal salt marsh and marshy barrier islands. It can only persist where there is adequate protection from wave action. It is adapted to sandy, silty clay loam, and muck soils. It is sensitive to cold weather which limits its use to the more southerly coastal areas and barrier islands. Optimum salinity that it can grow is 25 ppt. (parts per thousand) but it can tolerate a wide range of salinities.



Known range of adaptation of Pelican