Casuarina cunninghamiana *Casuarinaceae*

Australia, Pacific Islands

Common names: **Eng:** beefwood, creek oak, river oak; **Swah:** mvinje.

Ecology: Widely introduced to sub-tropical areas such as the southern United States. In East Africa successful plantations have been established in highland areas such as Ethiopia and in Tanzania it is grown in several mountain areas. It prefers well-drained soils but grows satisfactorily in a variety of soils. Altitude range 1,500-2,000 m and rainfall 600-1,500 mm.

Uses: Firewood, charcoal, poles, posts, timber, shingles, tool handles, yokes, fodder (young branches), shade, ornamental, mulch, nitrogen fixation, soil conservation, soil improvement, windbreak.

Description: An evergreen tree up to 20 m, **pyramidal in shape when young,** a shady crown. The bole to 75 cm diameter and lowest branches less than 2 m above the ground. BARK: grey and smooth becoming grey-black, much cracked with age. LEAVES: thin **branchlets** have taken over the leaf function in this family—leaves remain as minute scales at each joint (7-9). **Grey-green branchlets 9-20 cm** long in upturned **bunches.** FLOWERS: male flowers are seen as yellow pollen-bearing tips to branchlets; female flowers are tiny heads with hairy red stigmas, on woody branches. FRUIT: In dense clusters, **prickly brown capsules, 1 cm long** (smaller than *C. ecjuisetifolia).* When ripe they release hundreds of tiny winged seeds, **pale in colour.**

Propagation: Seedlings, root suckers.

Seed info.: No. of seeds per kg: 1,400,000-1,600,000. Tree seeds prolifically. Good germination rate (55%-90%).

treatment: not necessary.

storage: seed can be stored for up to two years in a **dry** cool place.

Management: Fairly fast growing from seedlings. Root suckers from felled and standing trees can be developed and managed.

Remarks: Seedlings susceptible to termites. Aggressive growth—and may thus compete with crops. In Tanzania it is recommended for planting in the highlands as a source of timber and a means of soil improvement. The wood is very hard and difficult to saw and season. The special root association with a fungus enables Casuarina to fix nitrogen in the soil.

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