

Descriptions of major dune plants

Sand spinifex grass (*Spinifex sericeus*)

Description

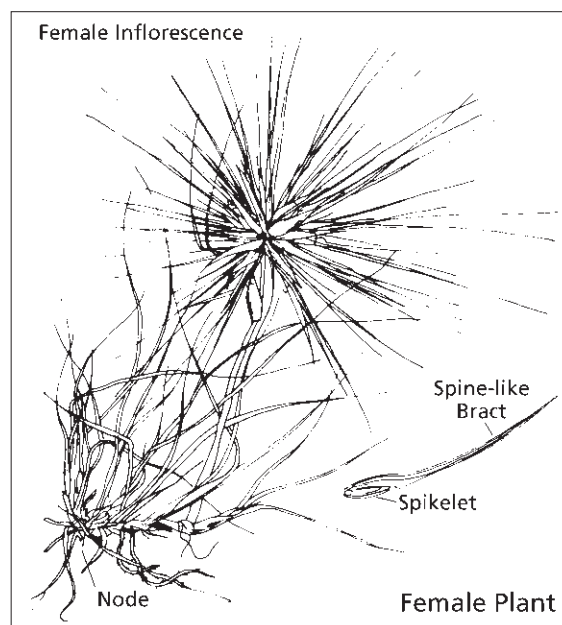
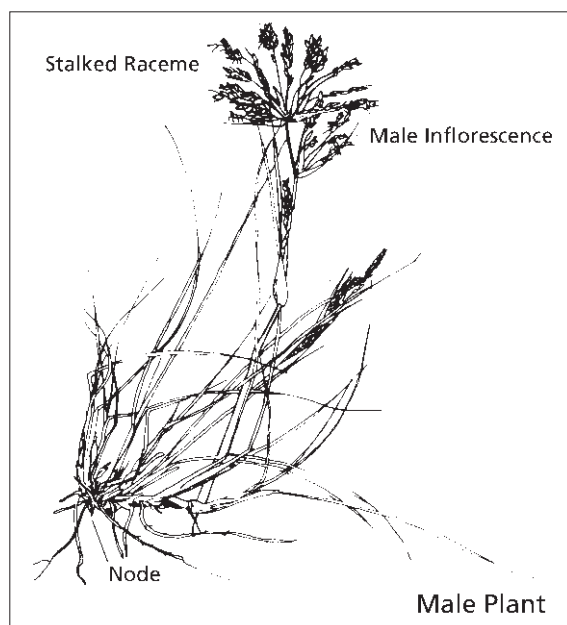
Spinifex is a stout perennial grass up to 30cm tall with strong creeping runners which produce roots and numerous upright leafy branches at the nodes. The nodes are the swollen structures on the stem from which the leaves and secondary branches originate. The leaves are clustered at the nodes, which are almost enclosed by the large overlapping leaf bases. The leaf blades are inrolled, 7-8mm wide when flattened, and are often 30-40cm long. The leaves are silvery on the upper surface, and the under surface has a dense covering of short silky hairs.

Inflorescences of different sex and appearance are borne on different plants. The inflorescence is the

flower head or seed head of grasses. The compact male inflorescence is pale brown, shortly branched, and about 5cm long. It consists of a terminal cluster of stalked racemes. A raceme is a single undivided axis bearing the flower units.

The female inflorescence consists of a large, spiny, spherical head of stalkless racemes, each of which is reduced to a single spikelet enclosed by a large spine-like bract 10-15cm long. The female inflorescence is commonly a terminal head 20-30cm in diameter and is straw-coloured when mature.

In some specimens, there is a second or third head below the terminal head.



Distribution

Spinifex grass is common on the sand dunes along the coasts of Australia, New Zealand and New Caledonia. Only one species is known to occur in south-east Queensland and its distribution extends from the New South Wales border north to Cape Bedford (north of Cooktown).

Function

Spinifex grass is the most important pioneer sand-stabilising plant occurring naturally on the coastal dunes of central and southern Queensland. Spinifex is salt-tolerant and has the ability to grow through accumulations of wind-blown sand. The upright leafy shoots reduce surface wind velocity, resulting in sand deposition with frequent burial of the leaves and stems. Cycles of sand deposition and vegetative growth (leaf and stem elongation) are an important feature of the dune-forming process.

Spinifex grows well on all parts of the frontal dune and is usually the dominant species colonising the seaward slope. It is the main species used in planting programs for the revegetation of frontal dunes.

Propagation

Spinifex grass is usually grown from seed, which can be collected in October–November from the beach and dune areas. To ensure maximum germination, the seed or whole inflorescence (the spiny spherical head from the female plant) should be adequately covered with sand at planting. Planting depth is largely dependent on sand moisture content and is usually in the range 2.5–15.0 cm.

Spinifex can be established using vegetative material and is usually successful when layers or tip cuttings 40–60cm long are planted to a depth of 20–30cm on 90cm centres. Planting depth depends on moisture conditions.



Sand spinifex colonising the frontal dune.