



September
2023

Common Name: Macadamia, Rough-shelled Bush Nut

Scientific Name: *Macadamia tetraphylla*
L.A.S. Johnson

Family: Proteaceae

Genus: after John Macadam, 19th century Victorian chemist

Species epithet: *tetra* - four, *phylla* - leaf, refers to the four-whorled leaves



Distribution

From the Richmond river in north-east NSW to Mt Cotton in south-east Queensland, from 30 m to 800 m altitude. The habitat in which it occurs naturally has been nearly entirely cleared.

Native Habitat

A mid-layer tree in rainforests and moist areas of open forests often along stream banks. Trees also occur in areas previously cleared for agriculture. They were often planted amongst banana plantations, many now abandoned. This makes it difficult to assess whether trees found in regrowth plant communities in previously cleared areas are wild or planted.

Description

Evergreen tree with a broad canopy, growing 8 – 15 metres in height and 6–8 metres wide. Oblong to oblanceolate leaves are dark green and leathery, 6–30 cm long in whorls of 3-5 but usually four. Juvenile leaves pink, purplish or red, whilst mature leaves are green and coarsely toothed.

Flowers and Fruit

Flowers are produced in pairs on long racemes. Individual flowers are small, fragrant, pink to purple and pollinated by bees, most effectively by the native bee, *Tetragonula carbonaria*. Fruit is a woody follicle with a pointy apex. Within the hard rough shell are one or two edible seeds.

Location in Garden

Bed 30 Middle Garden, Beds 68 and 72 Palace Garden.

Information

Macadamia is a genus of four species that grow only in eastern Australia and all species are listed as vulnerable or endangered. Only two species, *M.integrifolia* and *M.tetraphylla* produce oil rich and nutritious edible seeds.

Both species were eaten and traded by Aboriginal cultural groups. As early as 1828, Macadamias were encountered by botanist and superintendent of these gardens, Alan Cunningham. The first commercial planting of Macadamias was in northern NSW in 1888. Due to insect pests and rats this initial commercial attempt failed but trees were planted on private property for domestic consumption. Plants sent to Hawaii in 1882 became the foundation of the commercial Macadamia industry in the early 20th century. Australia is now the largest producer of Macadamia nuts in the world, with *M.integrifolia* forms and hybrids of *M.integrifolia* and *M.tetraphylla* the most commonly grown varieties.

M.tetraphylla is threatened by habitat loss and the fragmentation of isolated small populations, invasive weeds, fire, climate change and genetic pollution by hybridising with planted varieties. Rainforest Conservation research is one of our chief science priorities. At our Australian Plantbank recent progress has been made in freezing Macadamia seed to minus 192 degrees celsius and germinating after a month.