

SILK OAK

Silver Oak, Meresi, Mgrivea, Grevillea

Grevillea robusta

Proteaceae

ECHO® PLANT INFORMATION SHEET

Description

Grevillea robusta is native to the forest areas of southern and eastern Australia. It has been grown extensively in India, Eastern Africa, and now in Niger and other Sahel countries of West Africa. In its natural range, the species is semi-deciduous, shedding most of its leaves in the dry season, and can stand up to 6 months of drought. *Grevillea robusta* is a medium-sized to large tree 12-40 m (40-130 ft) tall, with dense branches projecting upwards.

Uses

Silk Oak was introduced to India as a shade tree in coffee and tea plantations. In coffee plantations it is grown as a second tier shade tree. It is an ideal tree for windbreaks or shelterbelts, and it makes an effective barrier around fruit orchards against high velocity winds. A deep rooting system causes little interference with shallow-rooted crops, and it can be successfully intercropped with banana, tomato, maize, beans, black pepper, banana, potatoes and cotton in agroforestry systems. This species also is used in landscaping, and as a source of fodder, fuel, timber, poles and rafters. The golden flowers are attractive to bees, making it an important honey plant. *G. robusta* is a pioneering colonizer of disturbed sites and provides abundant quantities of leaf mulch, which may accumulate to a depth of 30-40 cm (12-16 in). This thick layer protects the soil and maintains soil temperature.

Cultivation

- Elevation: 0-1600 m (5,000 ft)
- Rainfall: 1000-2000 mm (40-80 in)
- Temperature: 14-31° C (55-90° F) In temperate areas, it can survive moderate winter frosts.
- Soil: alluvial soils that are free of waterlogging and mildly acid to neutral. Loam soil is preferred. It also occurs on clay loam and sand. In soil that has too little available phosphorus for most trees, *Grevillea robusta* is able to obtain this element, converting it to a soluble form for absorption.

Harvesting and Seed Production

The species is a prolific seeder but the seed is difficult to collect. There are only two to three days between seed maturity and wind dispersal. The seed mass is low. If seed moisture content is kept below 10% and stored at room temperature (20° C/68° F), the seed can be kept for at least two years without loss of viability. *G. robusta* can be propagated through seed and cuttings. No pretreatment of seed is required, and it germinates readily in a moist environment. The optimum temperature for germination is about 25° C at a rate of 60-80% in 20-28 days. Cuttings can be easily established using shoots from seedlings or saplings, which can also be air-layered. It responds well to pollarding, lopping and pruning.

Pests and Diseases

The species has few pests in its natural environment. In humid regions, *G. robusta* is vulnerable to attack by fungal diseases such as *Corticium salmoniclor*.