

## Euonymus japonicus

Thunb.

Celastraceae

### LOCAL NAMES

English (Japanese spindle tree, Japanese euonymus); Filipino (malasangka); French (bonnet de prêtre); Indonesian (ki keuyeup, jeruk, awa kudang-kudang); Malay (kemuning ayer, belungkas, belimbing hutan); Mandarin (diào jing cao); Thai (kraduuk kai, khao kwang)

### BOTANIC DESCRIPTION

*Euonymus japonicus* is a much branched, evergreen shrub or small tree up to 7 m tall; twigs green, smooth, often wrinkled when dry.

Leaves lightly serrated, thick, dark green, opposite, 2.5-7 mm long, very waxy.

Flowers inconspicuous, white clusters, each with 4 green petals 6-10 mm.

Fruit capsule 4 celled, deep pink, exposing bright orange pulp on opening.

*E. japonicus* can be distinguished from the spindle tree (*E. europaeus*) by its rounded, unlobed capsule. Aureus is a cultivar of *E. japonicus* whose leaves are yellow in the middle with green margins; the leaves of cultivar Albomarginatus are green in the middle and yellow on the margins.

The generic name translates into 'good name' from the Greek 'eu'-good and 'onoma'-name, ironically referring to its poisonous properties.

The specific epithet means of Japan.

### BIOLOGY

Birds disperse the seeds of *E. japonicus*.



Leaves Aureo marginatus. Home Depot Nursery Kahului, Maui Hawaii (Forest & Kim Starr)



Leaves Aureo marginatus. Home Depot Nursery Kahului, Maui Hawaii (Forest & Kim Starr)

**ECOLOGY**

*E. japonicus* is found in wastelands and shrubland, but is sometimes seen as a garden escape on forest margins and in disturbed forests. It tolerates salt sprays. The plant prefers night temperatures of 4-12 deg. C and day temperatures of 19 deg. C or lower.

**BIOPHYSICAL LIMITS**

Mean annual temperature: 2-24 deg. C, Mean annual rainfall: 500-1500 mm, Altitude: 1000-1500 m

Soil type: A medium-textured soil with plenty of organic matter, medium drainage and medium fertility.

**DOCUMENTED SPECIES DISTRIBUTION**

Native: China, Japan, Korea, Republic of

Exotic: Australia, Indonesia, Malaysia, Philippines, Thailand



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

**PRODUCTS**

Poison: *E. japonicus* is considered a poisonous plant in the Pacific.

Medicine: The bark is considered to be tonic, an anti-rheumatic, an anhidrotic and a diuretic. Chinese women use the leaves to aid difficult delivery. Amerindians use the occidental vicariads in gynaecological applications.

**SERVICES**

Ornamental: Widely cultivated in gardens for its attractive, brightly coloured fruit and variegated foliage.

**TREE MANAGEMENT**

*E. japonicus* is a fast-growing, light-demanding species. Established plants should be fed every 3-4 months, and newly purchased or potted plants after 4-6 months. Overcrowded plants may be repotted any season, except in spring when the light-coloured new growth is tender. Overgrown plants should be pruned in spring, cutting just above a leaf joint, where a new branch will grow. Both these cultivars are highly susceptible to scales, but they can be cut back for the winter to eliminate scale for a while.

**PESTS AND DISEASES**

*E. japonicus* is susceptible to scale insects.

**FURTHER READNG**

Sosef MSM, Hong LT, Prawirohatmodjo S, eds. 1998. Plant Resources of South-East Asia. No. 5(3). Timber trees: lesser-known timbers. Backhuys Publishers, Leiden.

Whitmore T.C. 1972. Tree Flora of Malaya. Vol one. Forest Department, West Malaysia.

**SUGGESTED CITATION**

Orwa C, A Mutua, Kindt R, Jamnadass R, S Anthony. 2009 Agroforestry Database: a tree reference and selection guide version 4.0 (<http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp>)