

# *Koelreuteria paniculata*

## Golden rain tree, Varnish tree



*Koelreuteria paniculata* (golden rain tree) is a beautiful deciduous tree native to northeastern China and Korea. The species was introduced to Europe in 1747 by the Jesuit missionary Pierre d'Incarville and was named after the German botanist Joseph Gottlieb Kölreuter. This medium sized tree grows eight to thirteen meters tall and reaches a mature width of eight to ten meters. The crown is broad and irregularly rounded with semi open branching that creates an airy appearance and pleasant shade. In natural forests it behaves as a pioneer species, colonizing open areas and reaching heights of up to eighteen meters.

The foliage of the golden rain tree is pinnate or bipinnate, with egg shaped to lanceolate leaflets and a coarsely serrated margin. In spring the leaves emerge with a pink bronze tint, turn medium green in summer and end in a mix of yellow, orange and red in autumn. In mid to late summer the long panicles of bright yellow flowers appear at a time when few other trees are in bloom, which makes them valuable for insects. After flowering, decorative lantern shaped seed capsules develop, first yellow green and later shifting through orange to brown. These capsules often remain on the tree well into winter. The species has grooved, rough gray brown bark, while the twigs are slender and angular with small lenticels.

*Koelreuteria paniculata* is widely used in parks and gardens because of its attractive form, flowers and foliage colors. Despite its delicate appearance, it is a very tough tree that also performs well as a street or avenue tree and in squares and parking areas. It is tolerant of pollution, drought and a wide range of soil conditions. The tree grows best in full sun and prefers well drained soil, although it is not very demanding. In Korea the golden rain tree is used as a coastal windbreak. Research also shows that the tree is capable of absorbing heavy metals from the soil. It requires little maintenance and has a moderate growth rate. In some warmer climates *Koelreuteria paniculata* can self seed a bit too enthusiastically.

### TYPES OF PLANTING

**Tree types:** standard trees, half-stem trees, multi-stemmed trees, characteristic trees, solitary shrubs | **Topiary on stem:** multi-stem umbrella

### USE

**Location:** street, avenue, square, car park / parking lot, park, central reservation, in containers, large garden, cemetery, traffic areas, industrial zones, coastal area | **Pavement:** none, open, sealed | **Planting concepts:** urban planting

### CHARACTERISTICS

**Crown shape:** rounded | **Crown structure:** open | **Height:** 8 - 13 m | **Width:** 8 - 10 m | **Winter hardiness zone:** 6B - 9B

### ASPECTS

**Wind:** slightly tolerant to wind, slightly tolerant to coastal wind | **Soil:** loess, sabulous clay, light clay, sand, loamy soil | **Nutrient level:** low in nutrients, moderately rich in nutrients, rich in nutrients | **Soil moisture level:** dry, moist | **Light requirements:** sun | **pH range:** acidic, neutral, alkaline | **Host plant/forage plant:** bees, nectar value 4, pollen value 4 | **Extreme environments:** tolerant to dryness, tolerates air pollution, tolerates heat

### PLANTKENMERKEN

**Flowers:** panicle, striking, big | **Flower colour:** yellow | **Flowering period:** July - August | **Leaf colour:** buds orange, buds bronze, pale green | **Leaves:** deciduous, ovate, ovoid, serrate, pinnate, bipinnate | **Autumn colour:** yellow-orange, orange, orange-red | **Fruits:** striking, large, capsules | **Fruit colour:** yellow-green, yellow-orange | **Bark colour:** grey-brown | **Bark:** furrowed | **Twig colour:** grey-brown | **Twigs:** bare, with lenticels, thickly branched | **Root system:** shallow, coarse roots, fleshy roots