The Plantsman's Choice

Amur cork tree

A beautiful solitary tree for park environments

Henrik Sjöman and Andrew Hirons

The distinctive and characteristic habit of a free-standing amur cork tree means there are few other species that can create such a strong impression.

Several species of cork trees have shown very good hardiness in UK and belong to the group of park trees that should definitely be planted more widely than is the case today. The species we currently have the most experience with is the amur cork (*Phellodendron amurense*), which is available from larger tree nurseries – even in larger stock sizes.

The cork trees' genus comprises about 10 species and belongs to the Rutaceae family. All species in this plant family are rich in essential oils within their stem, leaves and fruits. So a distinct characteristic of cork trees grown in the UK is that crushed leaves and fruits have a very clear and strong scent. In China, cork trees have long been used in traditional medicine, where, among other things, the yellow fleshy roots are used to cure various ailments.

The amur cork originates from northern and north-eastern China, southern and south-eastern Russia and northern Japan. In north-eastern China, the species is found in rocky terrain and on steep slopes where it grows with species of oak. In the Kuril Islands of eastern Russia, scattered individual amur cork trees occur in mixed deciduous forests alongside *Betula ermanii, Magnolia obovata, Taxus cuspidata* and *Quercus crispula.* In natural forest environments, the species can develop into a straight-stemmed tree of 20m, while in cultivation it usually reaches 6–12m (exceptionally 15m) high. As an open-grown specimen, the amur cork develops a broad crown, almost like that of a savannah tree, with more or less distinct branch layers.

The paired leaves are about 15–30cm long and consist of 5–11 opposite small leaves, which are about 7cm long. The leaves have a glossy green top and a bright green underside. The tree's autumn colours are usually beautiful yellow and the leaves fall off relatively early. The flowers are visually rather subtle, coming in green-yellow clusters of around 7cm, but they are rich in nectar, and thus attract large numbers of nectar-collecting insects in May and June. The fruits are much more obvious: centimetre-sized black stone fruits are held in clusters and remain on the tree well into the autumn. Another very nice detail of the amur cork tree is the bark which, with age, becomes clearly coarse and cork-like, with a light brown to grey colour. This characteristic feature is reflected in the name of the species and its genus.

In Sweden, the amur cork tree is considered to be difficult to establish, and this is mainly due to the fact that in the summer-cool climate the tree takes longer to establish its root system. In warmer climates, however, the genus is considered to establish rapidly. Therefore, to be successful in the establishment of cork trees, it is important to choose a high quality plant with a well-developed root system.

Cork trees should be purchased as field- or container-grown trees; field-grown trees should preferably be repeatedly transplanted to get a well-branched root system. When handling a cork tree before planting, be aware that the species' roots are susceptible to wear, drought and too low temperatures. However, if you plan properly before planting, you will get a very beautiful specimen tree that, in

SCIENCE & OPINION 81

The canopy of the amur cork tree has light-permeable foliage and thus provides a pleasant shade

contrast with other species, will give a location or planting a distinctive sense of place. For successful establishment, the post-planting irrigation schedule must be robust and closely adhered to. One tip is to purchase larger tree sizes because young individuals can be underwhelming and have a sparse and irregular crown structure. Because of this sparse branch structure and broad crown in its youth, the tree is best planted as a larger, solitary specimen.



Dr Henrik Sjöman is a Lecturer at the Swedish University of Agriculture Sciences and a Scientific Curator at Gothenburg Botanic Garden.



Dr Andrew Hirons is a Senior Lecturer in Arboriculture and Urban Forestry at University Centre Myerscough.



Autumn colours are generally bright yellow.



out from others

As a solitary tree, the amur cork develops a broad shape, like a tree on the savannah, and thus stands

As the tree ages, the bark will become coarse and cork-like with a light brown to grey colour.