The Plantsman's Choice

Presenting promising urban trees

Eucommia ulmoides

A tree for future challenges

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A leaf of Eucommia ulmoides, gently divided with the portions attached by thin strands of latex.

Analysing which tree species have good prospects in a future characterised by new pest and pathogen introductions is sometimes a rather depressing undertaking, but the Chinese (or hardy) rubber tree, *Eucommia ulmoides*, offers a ray of metaphorical sunshine in a somewhat cloudy sky. Its general resilience to biotic threats means that the Chinese rubber tree has to be categorised as a promising tree for the future. Its tolerance for challenging site conditions makes it even more desirable.

Eucommia is a monotypic genera comprising only one species – *E. ulmoides*. Today this Chinese species is thought to be extinct in the wild as it has historically been highly sought after for traditional medicine in China. According to literature, extracts from *E. ulmoides* are good for preventing ageing, strengthening the skeleton and being valuable for muscle ache. In addition to its prominence in traditional medicine, the species produces latex that has the potential to supply rubber and complement the supply of latex from the tropical rubber tree, *Hevea brasiliensis*. Indeed the prospect of a supply of rubber from a cold-hardy species led to the Soviet Union creating huge plantations of Chinese rubber trees in the early 20th century. However, challenges in the extraction and subsequent processing of the

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latex, combined with a hard, ridged rubber, led to commercial ambitions diminishing over time.

However, the apparent limitations to its rubber-producing potential should in no way detract from its potential to serve as an important amenity tree. In the UK, the experience of the species outside tree collections is very limited but in central and north-eastern China it can be frequently found in paved street environments where it demonstrates an impressive ability to tolerate challenging sites. In the north-east of the USA the species has been confirmed as a promising urban tree with several successful plantations in inner-city environments. Even in Stockholm, Sweden, there are a few examples of Chinese rubber trees doing remarkably well on poor-quality planting sites.

In cultivation the species is described as growing up to 20m high, but more typically the tree gets to around 10m in height. As a young tree it develops a distinctly conical to ovoid habit, while older trees often develop a slightly more globular, rounded crown, particularly when they are grown in the open. The leaves are glossy and appear healthy throughout the summer before yellow hues indicate the arrival of autumn. They may also be a source of intrigue as you can gently divide a leaf into two, leaving the portions attached by thin strands of latex. As party tricks go, it's not in the top ten, but it can provide a source of amusement during botanical forays as well as an unusual characteristic to aid identification. The Chinese rubber tree is not a species that will win people's hearts with flowering or spectacular autumn colours. Instead, its low susceptibility to pests and pathogens combined with its tolerance to warm and periodically dry conditions make it potentially very useful.

Today, its availability in UK is limited and it is usually found as smaller plants at specialist nurseries. However, it would be very interesting to see more tests of this species in the UK. *Eucommia ulmoides* is of great interest in our own research and to date has performed very well in trait evaluations focused on characterising drought tolerance. However, it is moderately sensitive to wet and poorly aerated soils.

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