Newly planted Russian olive trees in a paved environment in Malmo, Sweden. (Johan Slagstedt)

The Plantsman's Choice
Presenting promising urban trees

Russian olive, *Elaeagnus angustifolia*

Henrik Sjöman and **Andrew Hirons**

Elaeagnus angustifolia **growing in the steppe of north-eastern Romania which shows the species' tolerance for warm and dry habitats.**

This silver-leaved tree is one of the sturdiest plants found at northern latitudes. It is equipped with several very useful features (strategies) to help it develop in very challenging habitats – ideal for the most challenging sites in our urban environments.

On open sites, the Russian olive, or oleaster as it is sometimes called, will develop into a broad tree with a dense domed crown, typically 5–8m high and almost as wide. The plant material found in nurseries is all seed propagated, which means that there is variation in growth shape that can be quite conspicuous when several trees are planted close together, but this is a feature that affords a rather organic texture to mature stands. Indeed, this individual development can be a real asset as each tree expresses its own personality, something that can be enhanced by creative pruning if you are so inclined. Such maverick characters are particularly prone to behave in an unruly way in their early years, though, so a useful tip when ordering a Russian olive is to buy a big tree. Young plants of the species need a lot of work (pruning) in order to create a tree structure that works well in street environments – if you order larger trees the nurseries have already created a structure that will require minimal future maintenance.

The narrow lanceolate leaves are covered in scales that give them a beautiful silvery sheen. It is this feature that gives the species its common name, Russian olive, as it is superficially quite similar to the olive tree found across the Mediterranean. The yellowish flowers appear in early summer and are quite discreet amongst the silvery foliage. However, their honey scent draws

An old Russian olive growing at the botanical garden in Uppsala, Sweden.

in a wide variety of nectar-gathering insects. The olive-like yellow fruits are not toxic and will not cause a heavy litter.

To accurately describe the species' natural range is very difficult, because it has spread over much of temperate Asia and Eastern Europe. It can certainly be found in south-eastern Europe eastwards through Central Asia and all the way into the Himalaya mountain range. In the European steppe in eastern Romania Russian Olive is considered to be an invasive species as it successfully spreads within this challenging climate. However, it is unlikely that the species would behave invasively in Northern and Western Europe because it requires a very hot and long summer to successfully spread by seed.

The species' presence in the hot steppes of Eastern Europe demonstrates a very high tolerance for heat and periodically very dry conditions. This makes the Russian olive very interesting for use in paved urban environments, courtyards, roof gardens and other constrained sites. An additional feature that makes it even more valuable for paved environments is its ability, through symbiosis with nitrogen-fixing bacteria, to convert atmospheric nitrogen into a form that is available to the tree – a very useful strategy in environments where the addition of biological litter is limited. It is also very wind resistant and has demonstrated a good tolerance to air pollution and road salt.

Elaeagnus angustifolia should definitely be used much more than it is currently – because of its capacity to grow not only in tough sites but also in situations where its silvery leaves can create contrast with other summer-green trees and shrubs in parkland situations. Today it is possible to source relatively large trees of Russian olive from nurseries, something that was impossible just a few years ago.

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The leaves and flowers of *Elaeagnus angustifolia*.