

WHATS THE MATTER WITH GINKGO?

A lot of the twitter feeds, about street trees, that I'm seeing at the moment are extolling the benefits of planting only native trees. So, for the purposes of this blog, I would like to talk just a little bit about the native trees we have in Ireland and their suitability to being planted as street trees within our urban environment.

The first thing to recognise is, what is it that we want from the trees we plant in urban environments. The benefits from trees are far and wide from reducing temperatures, offering shelter and shade to softening the built landscape and hard surfaces (Roberts et al, 2006). However, in order for trees to perform these tasks they must be in good health so planting the right tree in the right place is essential.

According to the Tree Council of Ireland we have twenty different species of native trees. Due to the presence of Ash Dieback (*Hymenoscyphus fraxineus*) it is not advisable to plant our native Ash tree presently. Our two native Oak trees, pioneer trees, have the potential to become large canopy trees that would require open space and therefore not suitable to planting as street trees.

In a recently released publication by Hiron & Sjöman (2019) they suggest that a tree's natural habitat can be mimicked within the built environment. They go on to suggest, for example, that pioneer trees should be planted in paved urban environments where improved structural soils are used. These planting sites should be fully exposed to the sun and have moderate water and nutrient retention to compare with the natural conditions for pioneer species.

Of our twenty native species, half can be considered pioneer species. We have ruled out our Oak trees and for the purposes of this blog if we were to concentrate solely on water supply and water demand of our remaining eight trees it would leave us with scant choices. The urban environment is full of impervious surfaces and drains and if the planting sites are not well designed, the majority of water will be taken away from the planting pits. Again, unless well designed the soil itself can also be heavily compacted which affects the ability of tree roots to access vital water and nutrients and leads to poor soil aeration.

So, back to our remaining native tree selection, we have, Alder, Bird and Wild Cherry, Willow, Rowan and two species of Birch which are all either sensitive or moderately sensitive to drought (Hiron & Sjöman, 2019). So how will they perform in drought conditions or in compacted soils? Will they have the long-term ability to perform the services required of them?

This leaves us with Whitebeam, Arbutus and Hawthorn of which whitebeam is extremely sensitive to poor soil aeration which is associated with compaction.

So should we not be looking at other species that can offer the services required, that are drought tolerant and have the ability to grow in hostile urban environments. Non-native species such as Hornbeam (fastigiate), Elm trees resistant to Dutch Elm Disease. Trees that offer colour variation such as North American Redbud or the Judas Tree. Or what about the hardy resilient Ginkgo.

I mean what's the matter with Ginkgo?

Urban Streets & Confined Spaces

Native Trees:

Birch (*Betula pendula*), Cherry (*Prunus padus* 'Fastigiata'), Rowan (*Sorbus aucuparia* varieties)

Non-native and Ornamental Trees:

Field Maple (*Acer campestre* 'Elsrijk'), Hornbeam (*Carpinus betulus* 'Fastigiata'), Turkish hazel (*Corylus colurna*),
Lime (*Tilia cordata* 'Green Spire'), Chanticleer pear (*Pyrus calleryana* 'Chanticleer'), Beech (*Fagus sylvatica* 'Dawyck'), Oak (*Quercus robur* 'Fastigiata'), Elm (*Ulmus* 'Lobel' and U.'Dodoens'), Ash (*Fraxinus ornus* 'Obelisk')



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