

Study day at Kew

Tony Kirkham

This was the second workshop to be held at Kew, following the success of previous study days at arboreta around the UK.

The day centred on tree planting techniques and general topical arboretum practices as we walked around the arboretum viewing some of the woody tree collections.

In the morning following coffee in the Stable Yard we walked through the woodland area to the planting site in the south end of the arboretum, a site marked ready for a new accession to the arboretum holdings amongst the young *Picea* collection.

The study days are practical hands on sessions in the garden with no class room exercises, but live situations and we were planting a wild collected *Sorbus meliosmifolia* SICH 2168 seed collection from a Kew expedition to Sichuan, China, in 2001, which was led by myself.

Tony Hall, the collections and Arboretum Manager in the Arboretum took us through the planting procedures referring at all times to the “Kew Tree Planting Specification” which has been drawn up to ensure that all the best criteria and standards are met when planting trees at Kew. It was produced using scientific based research, recent reference material from trends in Europe and the USA and personal findings from historical tree planting at Kew and other sites in the UK by the arboretum team.

There are basically nine fundamental principles to successful tree planting:

1. Protection of nursery stock between lifting and planting, especially of the roots. Root hairs can be killed within seconds if left exposed to the elements such as wind, sun and frost.
2. The planting pit should be shallow and wide; there are very few roots that penetrate below 500mm at Kew, as the shallow soil sits directly on Thames gravel which is very hard and compacted. The effort is put into the width of the pit where the roots begin to anchor and search for moisture. The Kew pits are dug square to allow for easier root breakout and reduce the possibility of circling roots.
3. No soil ameliorants or fertilizers are added to the backfill.
4. The addition of mycorrhiza at planting increases tree establishment rates.
5. The planting depth is critical and the root crown (hypocotyl) must not be planted too deep otherwise the tree will ultimately fail.
6. Tree staking damages trees; plant as young as possible to reduce the needs for supports and ties. Where staking is necessary use short stakes and appropriate tree ties and remove within 18 months.
7. Use guards for rodent protection.
8. Mulch the surface to reduce competition from weed growth and reduce the need for continual irrigation.

9. Irrigate during the first years to prevent the young trees from drying out and becoming stressed.

All the principles above were discussed at length by the IDS members during the actual planting operation of the *Sorbus* on a very warm late spring day with an exchange of ideas and practices from everyone who attended.

During the afternoon after a super lunch provided by Linda in the arboretum mess room we walked the south end of the arboretum looking at the collections and discussed arboretum management issues that we as growers face and share.

These study days are not only a way of exchanging information, but a means of networking and meeting fellow IDS members who all have one interest: growing trees!

This study day took place on 18 March 2005.

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