

NURSERY PAPERS

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ROADSHOW UNVEILS NEW TREE STOCK STANDARD

A new benchmark to assess the quality of Australian trees has been unveiled by Western Sydney University's Hawkesbury Institute for the Environment (HIE) at a series of capital city workshops last month.

The new standard, AS 2303:2018 *Tree Stock for Landscape Use*, follows two years of research funded by Hort Innovation using nursery industry levies and funds from the Australian Government.

In this Nursery Paper, we revisit the research findings that led to a broader, more applicable tree standard, as well as the national roadshow, which brought together 450 growers and landscape professionals to learn about the updated criteria.

Summary

The newly updated AS 2303:2018 *Tree Stock for Landscape Use* better reflects the variability of tree stock grown across the nation's diverse climatic and production regions.

- The standard follows two years of research including a nationwide field survey of approximately 14,000 trees across 23 production nurseries.
- Rigorous data analysis concluded that the former size index in AS 2303:2015 captured only one third of otherwise conforming trees ready for dispatch.
- Some trees produced under AS 2303:2015 were being potentially

rejected when, in fact, they were of acceptable quality.

- This research, together with extensive public consultation, led to a modification of the standard and the development of AS 2303:2018.
- The roadshows are an extension of the research '*Evaluation of nursery tree stock parameters*' (NY15001) each offering a practical demonstration of the new standard.
- Held at leading production nurseries and Melbourne's Three Days of Trees event, the national roadshow attracted more than 450 people across the green life sector.

BACKGROUND

Led by Western Sydney University HIE, the Tree Stock Standard Project is a multi-year research program designed to assess the national tree standard AS 2303, an important metric for those involved in the production, planting and maintaining of trees in public spaces.

Commencing in 2015, the project team undertook a literature review investigating factors affecting the root to shoot balance in containerised trees, as well as collecting an extensive database of tree stock data from the diverse growing regions of Australia.

This database involved Western Sydney University HIE measuring approximately 14,000 trees across 23 production nurseries to see how well the former standard AS 2303:2015 *Tree Stock for Landscape Use* applied to a diverse range of species and climates around the country.

Following rigorous data analysis, the results found that the former standard (AS 2303:2015) imposed limits that were too narrow; meaning that trees were being potentially rejected when in fact, they were of acceptable quality.

Key findings from the tree stock research phase included:

- Size index at a given volume exhibits large natural variation among trees surveyed across Australia
- Only 32% of measured trees fell within the specified range across all container sizes (18 to 3000L)
- 23% of measured trees exceeded maximum limits
- 45% of measured trees fell below minimum limits.



Tree stock standard demonstration at Three Days of Trees in Melbourne, 2018.



THE ROADSHOW

After extensive public and industry consultation, a broader and more applicable standard was produced through Standards Australia in late 2018, with oversight from a committee made up of representatives from the following organisations:

Arboriculture Australia; Australian Institute of Horticulture; Australian Institute of Landscape Architects; Australian Local Government Association; Australian Pipelines and Gas Association; Institute of Australian Consulting Arboriculturists; Local Government Tree Resources Association; Nursery & Garden Industry Australia; Parks and Leisure Australia; TAFE NSW; The University of Melbourne and Western Sydney University.

The updated standard AS 2303:2018 *Tree Stock for Landscape Use* takes into account the nation's diverse climatic and growing regions, and reassures buyers that trees are grown to a high standard and can be successfully planted into the landscape once they leave the production nursery.

For more information including the testing process for AS 2303:2018, visit the Western Sydney HIE website: https://www.westernsydney.edu.au/hie/projects/tree_stock_standard.

To purchase the full text of AS 2303:2018, visit the official website: https://infostore.saiglobal.com/en-au/Standards/AS-2303-2018-111281_SAIG_AS_AS_2696067/.



Adelaide: Carl from Heyne's Wholesale Nursery.

After successfully completing the research phase of the Tree Stock Standard project, the team from Western Sydney University HIE held a number of capital city workshops to unveil the newly updated AS 2303:2018 *Tree Stock for Landscape Use* and educate stakeholders on the practicalities.

Funded by Hort Innovation using nursery industry levies and funds from the Australian Government, the roadshow attracted more than 450 attendees for workshops in Melbourne, Perth, Adelaide, Brisbane, Darwin and Sydney.

Aimed at production nurseries and tree stock purchasers including landscape architects and designers, councils, town planners and arborists, the workshops focused on the updated guidelines and provided a practical demonstration of AS 2303:2018.

The extension activity was a valuable channel to educate industry about the importance of healthy and quality trees produced under the standard. The roadshow is also a prime example of how levy funded research can result in real, practical outcomes for the benefit of the entire green life sector.

The team would like to acknowledge the contribution of production nurseries during the research phase and roadshow, as well as the interest generated from Australia's landscape industries and local councils in bringing AS 2303:2018 to life.



Adelaide: Dr Sebastian Pfautsch from Western Sydney University HIE.



Melbourne: Damien Choate of Mt William Advanced Tree Nursery demonstrating the standard at Three Days of Trees in 2018.

MELBOURNE

The first roadshow was held as part of the broader industry event, *Three Days of Trees*, on Thursday 1 November 2018 in Melbourne. Attracting around 150 attendees, the event was an opportunity to highlight the research and progress of AS 2303 to landscape professionals from around the world.



Perth: Practical demonstration of AS 2303:2018 at Ellenby Tree Farm.



Perth: The team from Ellenby Tree Farm and Dr Sebastian Pfautsch.

ADELAIDE

The Adelaide Tree Stock Roadshow was held on Tuesday 5 March 2019 in Adelaide. The event generated interest from more than 30 growers and landscape professionals across South Australia. Following an overview of the research, a practical demonstration was held at SA Grown Heyne's Wholesale Nursery.

PERTH

The second stop of the roadshow was at Perth's Ellenby Tree Farm on Thursday 7 March. With more than 80 attendees, the event had strong representation from local municipalities eager to learn about the broader AS 2303:2018 standard and how it can be utilised for the betterment of all green industries.

BRISBANE

Western Sydney University's project lead, Professor Mark Tjoelker, facilitated the Brisbane roadshow held on Tuesday 12 March. The event attracted broad interest from more than 80 landscape professionals, production nurseries and arborists located in Queensland.

Robert Percy from Rothpark Nursery hosted the group for the practical demonstration of AS 2303:2018 and on site tour, with a variety of questions from attendees about the technicalities of the standard right through to the process that led to its revision.



Brisbane: Prof Mark Tjoelker presenting research findings at Caboolture RSL, followed by a demonstration by Robert Percy at Rothpark Nursery.





Darwin: Examining AS 2303:2018 with trees provided by Paradise Nursery.

DARWIN

The roadshow visited the Top End on Thursday 14 March with 20 landscape architects, council and departmental representatives, as well as local nurseries in attendance. Western Sydney University HIE's Prof Mark Tjoelker explained how AS 2303:2018 encapsulates greater variability in Australian trees.

SYDNEY

The final Tree Stock roadshow was held on Tuesday 19 March at Alpine Nurseries in Dural, Sydney. The event attracted around 110 growers, landscape architects and designers, arborists and local government representatives to discuss AS 2303:2018 and broader tree production and greening issues.

In addition to the HIE presentation, attendees heard from Nick Holdsworth from Alpine Nurseries, who provided a practical demonstration of the standard as well as useful tips on tree production, and Dr Libby Gallagher from Gallagher studios, who spoke on 'nursery to neighbourhood'.



Sydney: Tree Stock Roadshow at Alpine Nurseries, Dural.



Sydney: (R-L) Prof Mark Tjoelker, Western Sydney University HIE and Ken Bevan, Alpine Nurseries.

IMPLICATIONS FOR THE NURSERY INDUSTRY

Key national initiatives are already on their way to increasing green space in urban areas. Yet these initiatives need to be backed up by the implementation of standards, which ensure trees have a successful and long life once they leave the nursery.

The AS 2303:2018 is a voluntary guide to help growers and buyers to produce and buy quality Australian tree stock. Following years of research and a successful educational roadshow, the industry is well placed to implement a standard that ensures good tree health and quality.

LINKS TO RESOURCES

Western Sydney University Tree Stock portal: https://www.westernsydney.edu.au/hie/projects/tree_stock_standard

Purchase AS 2303:2018 Tree Stock for Landscape Use: https://infostore.saiglobal.com/en-au/Standards/AS-2303-2018-111281_SAIG_AS_AS_2696067/

2017 'Testing the Tree Stock Standard' Nursery Paper: https://www.ngia.com.au/Attachment?Action=Download&Attachment_id=2012

PAST EDITIONS OF NURSERY PAPERS ARE AVAILABLE ONLINE on the Nursery & Garden Industry Australia website
http://www.ngia.com.au/Section?Action=View&Section_id=46