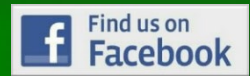


# the Propagator



International Plant Propagators' Society <http://aus.ipps.org/>

Australian Region - Newsletter Autumn 2023 - No: 74



## VARIETY IS THE SPICE OF LIFE

*"Society is unity in diversity"*

**George Herbert Mead**

The summer season has been a busy one for many in the International Plant Propagators' Society, however, in the case of Tony VanderStaa and Westland Nurseries, not so busy that they couldn't fit in a regional open day to celebrate 50 years of IPPS. A well-attended success, the event followed a previous meeting hosted by David Hancock at the Natural Area Nursery in W.A and as this issue of the Propagator makes its way through the post, a further regional meeting is taking place in South Australia. The South Australian event is unique, in that it involves several tours with capacity limits. As a result, the 50 delegates fortunate enough to secure spots have had to formally book in to attend.

Watching the list of attendees grow, and seeing the names come in, I have been reminded again of one of the most valuable benefits of IPPS membership – the Society's diversity. At the South Australian event alone, a specialist caper grower, botanic gardens curators, gardening presenters, authors, and lecturers are among the attendees. The nursery operators are just as diverse in their specialisations. One attendee comes from the fast-paced world of mass production of seedlings and potted colour, while another operates the growing arm of a major landscape company responsible for the planting works seen on many of South Australia's major roadways. Others specialise in research and the preservation of species, and the list goes on.

This is just a small gathering in South Australia. Look at the larger picture, a national event like this year's annual conference in Geelong, and you see the coming together

of a truly eclectic mixture of minds, leaders in their fields, and united by the field of propagation. As a member of IPPS for the past 15 years, it is the knowledge presented (and opportunities created) through this diversity that have ensured I have chosen to renew my membership each year. Look around at the various industry bodies out there and there is nothing like IPPS; it's an organisation with the sole purpose of increasing the knowledge and success of its members.

For all its merit, the Australian region of IPPS is still only a small part of the bigger IPPS picture and the diversity of membership grows exponentially when you consider our international networks. With IPPS regions including North America, Europe, China, India, Japan, South Africa, and New Zealand and each area contributing content to the international combined proceedings every year - for members of IPPS, variety, really is the spice of life.



***Wheat trials at the Plant Accelerator greenhouse (toured as part of the S.A IPPS event).***

**Image: Dan Austin**

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## President's Report

Autumn has arrived, another busy time for growers. Looking back on our strategic planning meeting last year, we identified several key points for the future growth of our IPPS region, namely reinvigorated regional meetings and renewal of our committee and board structures. All that in an environment of talk of economic slowdown and reduction in consumer confidence affecting us all one way or another.



Following on from a very successful area meeting in Perth coordinated by David Hancock, Tony VanderStaay appears to have outdone this in Hobart at Westland Nurseries with over a hundred people attending, even David and Dermot attended to support our members there. There is a real buzz with fellow growers being able to meet and share. Dan Austin has another meeting planned for the end of March starting at TAFESA's Urrbrae Campus. I trust that these will increase the awareness of IPPS in our industry. We can look forward to many more of these this year and into the future.

From all reports, our Geelong conference at the end of May is coming together. I believe that our pre-conference tour is fully subscribed but there is still room for extras. There are also already a good number of registrations for the conference proper. The speaker line-up and Saturday tours should attract many more delegates as we get closer to May. Well done Clive and Dermot.

We have had some changes with our awards committee membership recently, and this year we had an exceptional number of applicants for our awards. Stephanie Hastie from TAFESA was chosen as the Australian SA Exchangee and flew out to Johannesburg on 18.02.23. Plans are also in hand for the South African exchange participant, Sizwe Ndabeni, from the Cape Peninsula University of Technology in Bellville South Africa, who will spend some time with growers in Australia leading up to our conference. We have now also selected recipients to complete the IPPS GCP 6 pack and Rod Tallis awards, as well as others.

Your board has been working on the proposal for a social media leader, so watch that space (Instagram, etc.). I am sure you will have noticed the change in our newsletter as we agreed that Dan would produce one or two hard copy editions each year with the support of Norwood for printing these leading up to the conference. Thank you all for your support and effort.

As we draw nearer to the conference and AGM, I would also like to draw your attention to the need for nomination for executive positions and the replacement of retiring board members. Do not wait for that tap on the shoulder, if you feel you can contribute, contact me or Pam Berryman. We need to renew our board who have served us well over the pandemic years and I am reminded that many of our past presidents and board members were under 30 when they took on those positions.

Wishing you all a great Autumn season.

Bruce Higgs

## Achieving Success with Difficult Species

With Western Australia boasting one of the most hyper-diverse floral regions on the planet, it's not all that surprising that many species native to the state are challenging to propagate. The Queen of Sheba orchid (*Thelymitra* spp.) is amongst the best known of these and at Perth's Kings Park and Botanic Garden, researchers have been working to crack the orchid's propagation code.

One of the key reasons propagating the Queen of Sheba orchid has posed such a challenge, is because, like many orchids, the plant's seeds are minuscule. The seeds of many orchids are so small they lack sufficient energy stores to germinate alone. Instead, species like the Queen of Sheba have evolved an ingenious relationship with beneficial mycorrhizal fungi, which, upon coming into contact with seed, unite and provide a much-needed boost in resources to fuel the germination of the seed. Later in life, having moved on from such a precarious stage of development, the plants can return the favour in the form of sugars and energy produced through photosynthesis.



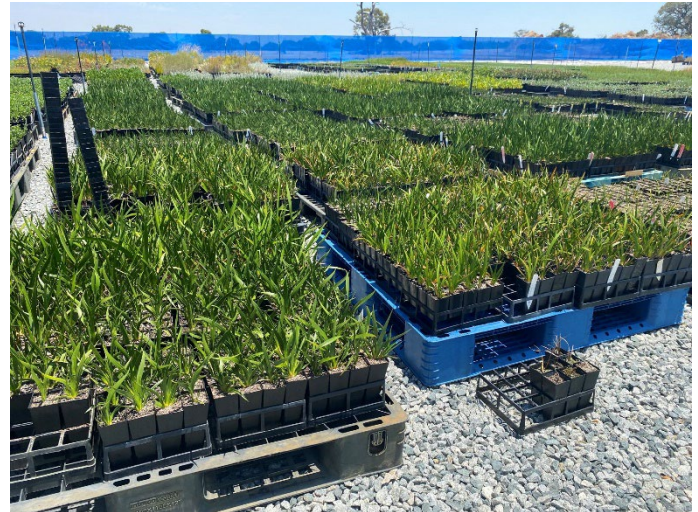
***Eastern Queen of Sheba (Thelymitra speciosa) Borden, Western Australia.***

**Image: Terry Dunham**

While many beneficial mycorrhizal fungi are known to form mutually beneficial associations with several species of plants and are somewhat indiscriminate in their relationships, others are highly specialised and exclusive between plant and fungi species. This is the case for the mycorrhizal fungi associated with the Queen of Sheba. The plants in the Kings Park Queen of Sheba research project were propagated from seed collected near Albany and Bunbury. Quite a feat given the rarity of the species but sourcing the correct mycorrhizal fungi to assist in the seeds' germination posed even more of a challenge.

After periods of limited germination and disappointment, the researchers of Kings Park were able to extract the symbiotic fungus from the roots of a wild Queen of Sheba plant and subsequently fostered the fungus under lab conditions. Curiously, even with the correct fungi in hand, adding orchid seeds to Petri dishes rich in mycorrhizae, continued to produce limited success. That was until a recent breakthrough changed things forever. It came when researchers were able to determine the nutritional requirements of the fungus for the first time. Fertilising the fungi prior to use ensured their optimum health and, in turn, the germination and survival of the associated orchids. In the months since, Kings Park staff have been able to propagate Queen of Sheba seedlings in their hundreds.

Kings Park is not alone in taking up the challenge of propagating difficult local species and IPPS's own David Hancock and his staff at the Natural Area Nursery in W.A are



constantly attempting to propagate difficult to germinate endemic species. Achieving success with approximately 450 species, which contribute to the nursery's current production of about 1.2 million plants, it's fair to say these propagators are among the best in the field. The fiendishly difficult species dealt with include *Lepidosperma glabra*, *Acanthocarpus preissii*, *Scholtzia involucrata*, *Lomandra maritima*, and *Hibbertia hypericoides* to name a few.

What makes Natural Area's production figures even more impressive is that a significant 95% of the plants are propagated by seed. One of the main reasons for this success is that staff have not settled for poor germination rates and simply decided a species is difficult. Instead, there is an ethos of continuous improvement in propagation



**From top to bottom: *Difficult to propagate Lepidosperma glabra*, *Santalum acuminatum* germination trials at the Natural Area Nursery.**

**Images: David Hancock**

techniques. This is well illustrated in a recent communication from David explaining his experience with the influence of temperature in the germination of *Santalum acuminatum* (quandong).

David writes: “The Natural Area Nursery has achieved reasonable success in past propagation of the quandong by using both natural processes (bury and wait) and utilising moist vermiculite in zip lock bags deprived of light. We recently experimented with temperature and split the seeds equally into a refrigerated group and others were kept at our Perth summer temperatures. The vermiculite treatment and denial of light were the same in all specimens. The temperature was set the same as a regular refrigerator (Engel on low setting) for 1 week on, then 1 week off, repeated 3 times. Only the refrigerated seeds began germination. As always, more testing is necessary to prove and improve results, but it is encouraging.”

With Western Australian species so unique in their diversity, it is encouraging to hear about the work being done to ensure their preservation and with the propagators involved being open to sharing their methods for success, these preservation techniques will

no doubt be adopted beyond Western Australia and contribute to conservation nationally.



**From top to bottom: Another difficult species *Acanthocarpus preissii*, aerial photograph of the recently built Natural Area Nursery.**

**Images: David Hancock**

## Open Day at Westlands Nurseries

On Wednesday the 22<sup>nd</sup> of February Westland Nurseries opened its doors to host an IPPS 50th anniversary networking day at Seven Mile Beach in Tasmania.

The weather turned out to be fantastic when over 130 people converged at the nursery for this inaugural open day. The event attracted over 50 students from TasTAFE, 6 instructors, 9 IPPS members (including 3 from interstate), and 10 industry support people, while wholesale & trade customers made up the remaining balance.

The session started around 10.30 with an introduction from Tony VanderStaay with a quick history of the site.

Groups then split into three and started the tour, for which we allowed 2 hours. Greg Carrick took the opportunity during the tour to talk to each group about the move to start recycling used plastic pots and how far down the track the movement is. Lunch was served around 1 p.m. After lunch, guest speaker David Hancock gave a pep talk on the Society outlining the benefits of seeking and sharing.

David was followed by Angus Stewart who gave a run-down on the breeding of natives to suit home gardeners, with some spectacular samples of *Anigozanthos* spp.



The third speaker was Chris Sargent from PMA, who talked about his business in promoting plants developed by breeders around the world and then finding markets to suit. Chris gave an outline of where he started and where the future was heading.

We were very fortunate to have some of our suppliers come forth with some sponsorship to help offset some of our costs, I would like to thank GCP, Croft Ags, Reece, Evergreen Connect, and Powerplants.



**From top to bottom: Open day participants enjoying lunch while hearing from guest speakers, visitors touring Westland Nurseries' facilities.**

**Images: Tony VanderStaay**

## International Director's Report

The international board has had two Zoom get-togethers over the past three months.

These meetings are a great opportunity to see face-to-face some of our fellow directors and there have been several changes to the group this year, as the position is rotated every two years. John Messina has been your past international director, a position which he filled for four years, and I thank him for doing a great job. The society unfortunately has been losing members worldwide, but in recent months, new members are coming on board, so onward and upwards. The international board consists of a voting director and an alternative director from each region, the idea being to give some consistency to decisions made. In our case, Bruce Higgs is our alternative director, a position that he will hold until my term is completed.



Financially, the society is well positioned, and we have a fantastic international secretary in Katie McDavid, helping to keep the society heading in the right direction. Tim Lawrence-Owen is our international president, which is a three-year term, elected from the current board members. Tim is a retired nurseryman and is based in England.

Through the efforts of Tom Saunders from the southern region, sponsors have been found for the international society, which helps offset running costs. So, when you go on to the web page you will now find these sponsors. Over the past few years, we have had several issues with our web page, and a decision was made at the last meeting to change our server. I understand will happen very shortly, and this should result in easier access for members to past papers and a clearer way for people to join.

Coming up later in the year is the international tour, which this year is being held in the southern region of the U.S. This is in October, and ongoing early reports suggest that they have a full contingent of members. So, looking forward to meeting one and all. The next international tour will be in 2024 and is in South Africa, however, this is in Feb/March which brings the interesting situation where we have two meets within 6 months. The full details of this tour have yet not come to the surface.

I look forward to catching up with you all in Geelong in May.

Regards  
Tony VanderStaay

## Steph Hastie: South African Exchangee

I'm happy to be able to introduce the IPPS membership to Steph Hastie, this year's South African Exchange participant. After earning her Certificate III in Horticulture from TAFESA, she entered the horticultural world to explore a passion for all things plants. Just years after graduating, her career has taken her across the world from Jerusalem to Greece and now, South Africa.

She has worked as a horticulturist in several private gardens, as well as at Ecodynamics Nursery working in the large-scale propagation of native Australian plants. Currently, Steph works as a lecturer in horticulture for TAFESA, where her predominant focus is teaching an introductory course on plant botany, physiology, and plant cultural requirements. Steph says teaching keeps her on her toes and her mind fresh. She thoroughly enjoys encouraging others' knowledge of – and passion for – plants.

You can read all about Steph's experiences in South Africa in the pages ahead.



## Reflections on South Africa

I've landed back on Australian soil, after a whirlwind three-week trip around South Africa – from Gauteng to KwaZulu-Natal and the Western Cape. Now, I'm faced with the task of summarising the adventure and some of the things I learned from the skilled and passionate plantspeople I had the fortune to meet along the way. One of the things that stood out to me the most was just how welcoming, generous, and hospitable everyone I met in South Africa was. The only caveat to their hospitality was their continuing indignation in relation to the genus *Acacia* – an enduring thorn in their side that is unlikely to be alleviated by distasteful puns. Taxonomic

controversies aside, I couldn't recommend the experience more highly to any plucky young propagators out there who have the desire to get out of their comfort zone and to see and learn a new thing or two.

My heartfelt thanks go to the members of the Australian branch of the IPPS for allowing me the opportunity to better myself and for trusting me to be a suitable representative in South Africa. I would also like to express my deep gratitude to the people who hosted me in South Africa; Hans & Carol-Ann Sittig of Sittig's Nursery, Dr. Miranda Deutschlander (Senior Lecturer in Ornamental Horticulture at the University of South Africa) and her husband Günter, and Karen Eichholz of Shadowlands nursery. All these people welcomed me into their homes, treated me like I was part of the family, and put in every effort to make my stay interesting and enjoyable.

My thanks must also go to the many plantspeople who generously agreed to take time to show me around their gardens and/or nurseries and share their knowledge along the way. Thanks to Jason Sampson, Curator of the Manie van der Schijff Botanical Garden, a division of the Plant and Soil Sciences Department at the University of Pretoria, for taking me on a botanical tour of the campus. Whilst I was there, I had the privilege to see the resident *Encephalartos woodii*, one of the rarest plants in the world. Jason didn't commit himself to an exact value in

terms of a dollar amount, but he offered the following fact "it is worth more than the rest of the university's cycad collection combined" and posed the following question "how much do you think it would need to be worth to justify the cost of the expensive security fence?" Also referred to as the world's loneliest tree, *E. woodii* is a confirmed bachelor – the last of his kind unless a female cycad can be found in the wild. At this stage, *E. woodii* is listed as extinct in the wild. However, according to the South Africa National Biodiversity Institute (SANBI), as many as 500 specimens exist, all of them derived from basal suckers or offsets from the original plant discovered by John Medley Wood in 1895. Unfortunately, the specimen at the university is yet to produce any suckers.

A nursery that I was particularly impressed by, also the last nursery I happened to visit in South Africa, was Arnelia. Arnelia is a wholesale potted plant nursery that specialises in growing many different species and cultivars of plants in the family Proteaceae. They also have a hand in the Proteaceae cut flower industry. The nursery is located in the Western Cape, about 120km north of Cape Town. As I was guided through, I had the strong impression that Arnelia was the brainchild of a person (or persons) with significant vision, tenacity, and high standards. I was told the nursery had suffered a tremendous loss of stock after a freak hailstorm in 2018 but looking at it today



**One of the rarest plants in the world, *Encephalartos woodii*, at the University of Pretoria.**

Image: Steph Hastie



you wouldn't be able to tell. I was particularly impressed with their level of nursery hygiene (including a well-structured quarantine area, and well-maintained foot and wheel baths), clear propagation protocols posted in their cuttings facility for the benefit of staff, and the overall meticulous arrangement of the nursery.

Most of their plants were produced from cuttings, although some species were grafted onto rootstock, and others (notably *Aloe* spp.) were produced from tissue

culture. Whilst they were growing many of their plants using the Ellepot propagation system, I was also interested to learn that they were transitioning to Growcoon plugs holders. They found when grown in the Growcoons, the plant's root system adjusts better after repotting. However, I was told it was important to be mindful of repotting as soon as the cutting had rooted in the Growcoon (a bit more than what is present in the picture of the *Chamaelaucium* cutting).



From top to bottom clockwise: *Leucospermum* 'Twister' grafted cuttings, *Chamaelaucium* 'Morning Delight' grown in Growcoon (Arnelia nursery), tissue culture display at tissue culture lab at Dube Trade Port (Durban).  
 Images: Steph Hastie





It was such a pleasure (minus the humidity at times, which did almost get the better of this dry climate Aussie) to attend the IPPS conference in Port Edward, to participate in the pre and post-conference tours and activities, and to celebrate at the Gala dinner. There is much more I would like to share, but it will have to wait for the Geelong conference. I will end by saying, again, that the exchange was a wonderful and valuable experience, and I wish for Sizwe – the exchange student who will be coming from South Africa in May – to enjoy his time in Australia as much as I did in South Africa.

Australia where he will be hosted by Matt Coulter - propagator extraordinaire at the Mount Lofty Botanic Gardens.

### Sizwe Ndabeni is Australia Bound

### Taking on the Challenges of Propagation

Meet Sizwe Ndabeni, this year's South African guest attending the Geelong conference on exchange. It has been a long wait for Sizwe who was selected for the exchange program back in 2020, just before the world locked down due to the pandemic. So, it is fantastic Sizwe was still able to take up the opportunity in 2023.

The Natural Area Nursery propagation team has been working on some new projects and is happily sharing these experiences for this edition and future editions of the Propagator.

Sizwe has studied horticulture at the Cape Peninsula University of Technology. In 2019 he also undertook an internship at the Kirstenbosch National Botanical Gardens and another at Shadowlands Wholesale Nursery in Cape Town.

*Spinifex hirsutus* is a plant that is considered highly desirable for coastal foredune restoration in southern Western Australia & Western South Australia. It is similar to *Spinifex sericeus* which inhabits the eastern coasts from Queensland to eastern South Australia.

We look forward to welcoming Siswe to Australia, where he will not only attend the conference in Geelong and spend time with a variety of Victorian propagators but will also have the opportunity to spend some time in South

Stem cuttings will typically produce strike at rates from 30 to 50 percent but propagation material is in short supply, of variable quality, and even after striking *S. hirsutus* plants do not survive well when constrained in tubes, particularly under overhead watering. Additionally, there is potential for the natural hybridisation of *S. hirsutus* with *Spinifex longifolia* and when the species is propagated using vegetative material, it is considered undesirable in coastal revegetation programs.

Natural Area saw a need for a more sustainable and consistent production method for this species. Realising the potential to exclude any hybridised specimens from production saw Natural Area begin investigations into seed-

**Top left: IPPS Conference Gala dinner – Miranda Deutschlander, Sizwe & Steph Hastie (T.O. Strand, Port Edward)**

**Top right: Sizwe Ndabeni**

**Images: Steph Hastie and IPPS South Africa**

based propagation. Previous seed-based propagation had been slow and resulted in erratic germination rates and seed viability could not be accurately predicted. Natural Area's revegetation and horticultural services business development manager, Matt Wood, led a team to assess

flowers most likely plays a crucial part in pollination and subsequent seed development. The correct selection of inflorescences in the field was critical for providing suitable seed for the trials.

The trials were guided by assessing natural germination conditions and from experience gained with Natural Area's successful production of *Spinifex longifolia*. After some initial Petri dish germination tests, Matt's team was able to achieve germination rates of up to 80% over 7 days with initial germination occurring in just 3 days by selecting the healthiest seeds and excluding the seed from light during germination.

The next stage of research will involve producing robust seedlings and examining watering regimes which suit this species - an exciting challenge for the team.

Article by Matt Wood & David Hancock.



viable production methods starting with obtaining suitable seed to start the process.

The seed (caryopsis) is contained deep within a spiked sheath, existing in a state of desiccation. An extraction requires breaking the inflorescence apart and removing the thin sheaths that further enclose the seed. The viability of each seed varies dramatically from 8% to 70% depending on the inflorescence. The proximity of male and female

### Member Profile: Dermot Molloy

Meet IPPS board member and one of the organisers of this year's annual conference in Geelong, Dermot Molloy.



Dermot's professional role outside his activities supporting IPPS is as the Senior Curator of Horticulture at the Royal Botanic Gardens of Victoria, where he has worked for over 22 years as a propagator. He has been a member of IPPS since 2005 and a board member since 2016. Dermot has been involved with horticulture his entire life, allowing him to see a lot of what the industry has to offer. He says he enjoys mixing horticulture and travel to discover the world's plants and people.

As a conference organiser, Dermot has the inside word on this year's event and has said that the conference committee is finalising a great speaker program for the IPPS conference in Geelong this year.

"We have a fantastic lineup of speakers including Andrew Laidlaw, Jane Edmanson, and many more talking on a diverse range of horticultural topics. The conference tours to Geelong Botanic Gardens, Roirama Nursery, and Vasilis's Garden are sure to be a hit."

The pre-conference tour has been very popular too and spots are filling fast so don't delay in registering your attendance at IPPS Geelong from the 25th to the 27th of May 2023.

**Top to bottom: *Spinifex hirsutus* seed before and after sheath removal, germination trials, successful germination based on careful seed selection.**

**Images: David Hancock and Matt Wood**



# Propagation - Essential to Life!

## Geelong 2023



### Pre-conference Tour: 22 & 23 May, 2 days/1 night

Visits to Rivers GC, Allowyn Gardens, Norwood Industries, Garden City Plastics, Ball, Diggers and Van Loons GC. Touring across Melbourne, Yarra Valley and Mornington Peninsula. Includes all food, drinks and accommodation.

Hear presentations from Andrew Laidlaw, Jane Edmanson, Clare Hart, Matt Mills, David Hancock, Matt Mansfield, and many others on the importance of plants and plant propagation in our lives. Subjects include mass propagation for commercial use to the importance of propagation for the community. Topics will also include propagation in breeding, how we can prepare our plant collections for changes in the environment, and future sustainability issues & solutions.

Saturday tour includes hands-on workshops at Gordon TAFE, a visit to Vassili's private gardens, and a tour of Roriama Succulent Nursery. Dinner at the Geelong Botanic Gardens will be a highlight along with the annual dinner dance. Of course, there will be the opportunity to meet with young and old, new and experienced passionate and professional propagators. Learn from the best and share in the amazing world of plant propagation.

Register now and we will invoice you in February. Contact: Pam Berryman ([pam@ipps.org.au](mailto:pam@ipps.org.au)) or Clive Larkman ([clive@larkmannurseries.com.au](mailto:clive@larkmannurseries.com.au)) **for more information or to register!**



## Novotel Geelong



Located right on the waterfront, a stay at Novotel Geelong places you in the heart of Geelong. Stay in one of 109 guestrooms featuring LCD televisions and private balconies. Enjoy a range of recreational amenities, including an indoor pool, a steam room, and a fitness centre. Book direct.

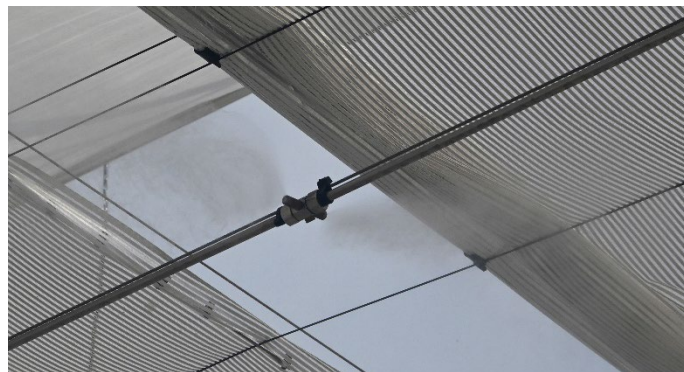


## Advancing Training in Propagation

No two nurseries are exactly the same. Whether it is a difference in location, topography, or even water quality, although one nursery may appear to have perfected production, duplicating the same design elsewhere may not deliver the same outcome. When looking at establishing educational nurseries, successfully adopting the positive aspects of existing nurseries requires even more consideration and forethought, as the area becomes a teaching space rather than producing profitable production. This is exactly what has been happening recently at TAFESA's Urrbrae campus.

In a rare opportunity, the campus was given funding to replace its aged and degraded propagation facility. So, staff set about visiting propagation nurseries across the state to see what was working and what wasn't. Ecodynamics Nursery at Penfield Gardens produces hundreds of thousands of native plants vegetatively using bottom heating foil mats with bench tops slightly angled downward to avoid water pooling on the mats – a top tip taken on at Urrbrae when replacing its dated sand propagation benches. On a visit to the Mount Lofty Botanic Gardens Nursery, staff observed the use of individual cloches over heat beds to allow for greater control for specific species or propagation techniques, as well as irrigation and heat having a minimal impact on the environmental conditions in the rest of the greenhouse; another tip adopted in the new facility.

The heat beds in the new house are thermostatically controlled and the irrigation scheduling for each one can be controlled independently based on either time or

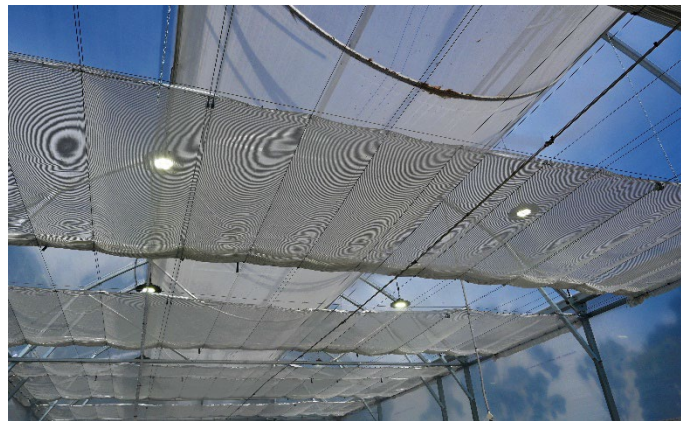


**Top to bottom: High pressure fogging used for cooling, propagation beds segregated in individual cloches, healthy propagation material, the new propagation facility is designed to maximise light.**

temperature. A great feature, allowing staff and students to tailor watering to the stage of individual plants and a significant step forward from the previous system that irrigated the entire propagation area using a single balance arm sensor.

Wet wall cooling was observed across several nurseries but rather than best practice, this appeared to be due to affordability, and the budget for this project allowed for the installation of a fogging cooling system along with automated energy screens and gull wing ventilation. Although the budget allowed for a fantastic facility, it didn't quite stretch to fitting the greenhouse out using twin-wall polycarbonate, which would have been the ideal option for appearance and longevity. Instead, an inflatable dual-skinned house was negotiated.

The structure was constructed on a lined gravel base with all water runoff able to be captured and processed through a wetland water purification system. Initially, it was thought that this project would also include the replacement of a neighbouring poly-tunnel used for hydroponic growing, and as a result, white Reflecta Mat was selected to surface the floor of the facility. This surface maximises light and is valuable in cropping situations, although the permeability of the product is less than other surfacing materials used in water capture systems, so time will tell how this performs.



The first cuttings were struck in late March, and it is still early days for the facility, but the plants are moving along well. The structure has also stood up to its first significant wind event. Wind speeds that brought several trees down in the area also led to a power cut and without power, the inflatable dual-skin hung loose and deflated as the wind wore on. Staff were gritting their teeth and preparing for the worst, but no damage occurred. Fortunately, the house's wind sensors had instructed the gullwing vents to close before the power went out.

Taking the best part of a year from the demolition of the old house to the completed construction of the new, it has been a long wait but given the potential benefits for the future of training in propagation, it has been well worth it.



**Top to bottom clockwise: The new facility features automated energy screens, an insect barrier and LED lighting to allow for night classes, climate control system supplied by Redpath, new facility from the front including hygiene vestibule and footbath.**

## Propagator or Grower - Topics for You

Those of you who have been members of IPPS for some years may have noticed a change in the Propagator newsletter recently, and certainly in this one, as it arrives in full-colour print. You'll also notice some great member contributions on specialist propagation, and this is something I encourage all members to build on. Please share your experiences in propagation for inclusion in the newsletter. After all, it is called 'the Propagator'.

Another new feature is the wrap-around section of news in propagation and horticulture in a snapshot form including links to larger articles when you have time. So, read on, enjoy and I look forward to hearing and seeing what you are all achieving in the world of propagation.

Dan Austin - Editor

### ***RNA Vaccinations to be Used to Protect Trees***

For all the chaos that it caused, the COVID-19 pandemic did produce some positives. Certainly, there was a boom in the green life industry, but science also moved ahead in leaps and bounds in the field of RNA vaccines. So much so, they may go beyond use in humans and be useful in the world of plants.

Xylella and Huanglongbing (HLB) are two particularly nasty plant pathogens not yet present in Australia, but should they arrive, could be devastating to Australia's 15.2 billion-dollar horticulture industry.

Hort Innovation has announced an 8.2-million-dollar investment to trial the use of RNA vaccines that will work by causing the cells of vaccinated trees to produce chemicals targeting specific pathogens.

More can be found here: <https://www.horticulture.com.au/hort-innovation/news-events/media-releases/2022/Tree-immunisations-could-become-a-reality/>

### ***The Lesser-Known World of Graft Chimeras***

When budding and grafting, the traditional school of thought is that the genes of a rootstock will remain separate from the growth that develops from the scion or bud. And this is certainly most often the case. In fact, genetic testing of the rootstock and above-ground growth of ancient olives in Israel has found them to be genetically different. The olives are thought to be around a thousand years old and show just how long humans have utilised the practice of grafting.

***The Strawberries and Cream Tree in the UK is a graft chimera between Prunus avium and Prunus 'Kanzan'.***

Image: Mojo0306 Wikimedia Commons

However, not all budding and grafting results follow the rules and from time-to-time chimeras, sharing the DNA of both plants in a union are formed. Often adult plants display characteristics of both the rootstock and scion or bud. Some will even randomly shoot foliage resembling the rootstock in the plants canopy high above and union where you may expect suckering.



More on the fascinating world of chimeras can be found here: <https://resources.austplants.com.au/stories/graft-chimeras-on-eremophilas/>

### ***Keeping up With Nomenclature and New Releases***

There is often debate in the teaching world about what is more important for students to learn, common names or botanical names. In a new world of genetic mapping botanical names are being changed like never before and when working with the public common names are more widely known. The answer in an ideal world is of course to know both. Then there is the world of cultivars and not having a good knowledge of these and the associated laws around PBR can really bring students undone when they get out in to industry. Thankfully there are useful tools to keep up to date with both rapidly changing botanical names and newly released cultivars as well as all that are under PBR.

Valuable resources can be found by following the links below: <https://www.ipaustralia.gov.au/tools-and-research/professional-resources/journals/plant-varieties-journals>

<https://wfoplantlist.org/plant-list/>

## Executive Officer's Report



I have still been kept busy with the 'day-to-day' running of the IPPS office as well as following up on membership subscription renewals.

Membership renewals for 2023 are now OVERDUE. The Australian region is required to report to the international board the number of membership subscriptions for 2023 by JUNE of each year and send payments to cover the costs of international administration. If you have not received your Membership Renewal Notice, please contact me at [pam@ipps.org.au](mailto:pam@ipps.org.au)

If you are having difficulty paying your subscription, please contact me so that we can look at the various options available for split payments.



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To ensure Office records are kept 'up to date' I would appreciate it if Members could please notify me of any changed contact details. In particular, if you have changed telephone provider recently, please advise me of your new email address at [pam@ipps.org.au](mailto:pam@ipps.org.au) It is important that the Australian & International database records are kept 'up to date', otherwise you could be missing out on receiving information.

## IPPS Australian Region Board for 2022/2023

<b>President:</b>	Bruce Higgs	<a href="mailto:bruce.higgs@bigpond.com">bruce.higgs@bigpond.com</a>
<b>1<sup>st</sup> Vice President:</b>	Clive Larkman	<a href="mailto:larkman@larkmannurseries.com.au">larkman@larkmannurseries.com.au</a>
<b>2<sup>nd</sup> Vice President:</b>	Ray Parker	<a href="mailto:ray@parkersplace.com.au">ray@parkersplace.com.au</a>
<b>International Director</b>	John Messina	<a href="mailto:johnmessina30@gmail.com">johnmessina30@gmail.com</a>
<b>Alt. International Director:</b>	Tony VanderStaay	<a href="mailto:tvanders@westlandnurseries.com.au">tvanders@westlandnurseries.com.au</a>
<b>Treasurer</b>	James Burnett	<a href="mailto:jab342000@gmail.com">jab342000@gmail.com</a>
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