

# the Propagator

International Plant Propagators' Society <http://aus.ipps.org/>  
Australian Region - Newsletter Spring 2020 - No: 66

## Zoom ... Zoom

Zoom ... it sound like something my grandson says when playing with his toy cars. Who had heard that Zoom was available a year ago to easily videoconference with family, friends and for business? Yet this year has seen us become familiar with this and many other online tools such as live streaming as we adapt to meaningfully continue to communicate with others.

Back at the end of May the Australian region held its first online AGM online as we adapt. Certainly this year has reinforced the idea that we need to be flexible in the ways we think and operate. In keeping with the societies motto of to "seek and share" IPPS regions have also sought ways to do things differently.

Congratulations to those who have organised the online events held by international regions, especially those from the North American IPPS regions since annual conferences have been postponed. With about 15 hours time difference in advance for us it has meant tuning in early in the morning to something worthwhile (or watching a catch up YouTube video).

The July tour online of Knight Hollow Nursery, woody tissue culture lab was one such example. People from around the world tuned in. Liz Dunham, VP of the nursery provided a behind-the-scenes tour of her woody tissue culture laboratory in Wisconsin, USA as part of the Eastern Region micro-meeting on YouTube <https://www.youtube.com/watch?v=U9EKhhho7I3I>.

They have switched to

LED's with good energy savings (especially in cooling costs) without much effect on growth. The Q & A session at the end was really good.

### The North American IPPS Summit: October 27 to 29

You can register for a free 3-day showcase of IPPS members and their nurseries across the three regions of North America plus the emerging India region. Do not forget that we are 15 hours ahead in time of EDT on the East Coast of Australia with daylight saving (14 hours ahead in Qld., and 11 hours in W.A.).

Each day will be hosted by one region and will feature tours and speakers related to plant production. Only members will have access to the recordings of the North American Summit, there is still time to join.

[https://ksu.zoom.us/webinar/register/WN\\_eg\\_HewrgRX-r1-Ukzpqz0g](https://ksu.zoom.us/webinar/register/WN_eg_HewrgRX-r1-Ukzpqz0g)

Follow our Australian region's Facebook page to keep up to date with IPPS events in Australia and other regions around the world. It is great to remember we are part of a global community of passionate plants-people. Looking forward to when we can meet in person again at a site event.

+ Bruce Higgs



October  
27-29,  
2020



### THIS EDITION

Zoom ... Zoom  
How Much Shade?  
The New Zealand Scene  
Potential IPPS Name Change

Reports  
President's Report  
Executive Officer's Report  
Newsletter Editors Comment

## President's Report

Over the past few weeks most of the nursery industry have been very busy supplying ever increasing demand for plants, to such extent that some growers have literally shut the nursery to allow stock to grow. Meanwhile propagators are under the pump to get more plants to the growers, where there use to be surplus stock list available just about nonexistent, with the small exception of stock that really market doesn't want.



How long this will last will be an interesting question, I am hoping that a least a couple of years, though there is a feeling out there that once the government subsidies are turned off, things could come off the boil very quickly. Only time will tell.

The thorny question of re-badging the society name has come up again, and few members have sent in some very passionate responses. Broadly our older serving members feel we should leave things alone, and they put up some good argument as to why, yes we are very specialised group of people, we have some extraordinary talents, and experiences in propagating a very broad range of plants, and in the years of business we were seen to be the leaders in a particular range of plants. There were considerably more smaller growers in the market also, so as a society we attracted these proprietors. We were considered to be the production side of the nursery industry as against the commercial business of running a nursery. My late father Henry (snr) always considered the propagators as the producers and the nursery industry associations the political/business part of the industry, and as I have matured I also come away with the same logic.

The structure and subjects of our conferences over the past ten years, have changed considerably, yes we do have some propagation discussion, but a lot of our subjects have turned to production techniques, medias, equipment systems, streamlining productions systems, pest control etc etc. which really are production aids. With support from HIAL we are doing more on reporting of research pro-

grams, breeding programs, new plant varieties, so we are doing this because we try and give a broad spectrum of interest for our members.

The opportunity to network over a coffee or a meal is so important in keeping us in touch with each other, so the broader appeal to producers is important to maintain. The demise of the black book, is due to the fact that modern communications have surpassed it. The big issue is a lot of our papers are no longer written but given digitally, thus not producing a hard copy, and of course we have WWW. Allows people to search for information from the comfort of their own chair.

The situation in today's market is there are fewer small growers around, as the demand from retailers increases we are finding that growers are doing less variety but greater numbers, and that management is often more occupied with running the business than actually propagating the stock for the business; as a society we should be looking at convincing the business owners that sponsoring their production people to join the society. I know some members already do this, but we need to get the word out to the bigger players, and for them to realize that it is an asset to have better informed production staff.

So I feel that rebranding the society is a necessary step if we wish to convince nursery owners that we do matter and we can be beneficial. I wish to thank all those members that have replied to the email that Pam sent out.

Cheers

Tony Vander Staay

## Executive Officer's Report

### COVID-19

2020 has been a year like no other, and with COVID 19 (Coronavirus), we have shown we can pull together whilst staying apart. It has forced us to look at the very way in which we live, breathe and behave.



As the second wave of Coronavirus (COVID-19) starts to 'flatten', hopefully we can approach Spring in the knowledge that we have the relationships, systems, protocols, practices and plans in place to anticipate and manage any further challenges that COVID-19 may throw at you, your business and the industry in general.

We know that like us, you are all doing your best to protect your business, your loved ones and yourselves.

### IPPS Office

Even though the IPPS Office slows down at this time of the year, I have still been tending to administration side of things, as well as the 'day to day' running of the Office.

### Subscriptions

Maintaining membership is still a challenge as membership continues to decline. If your dues are still outstanding I would really appreciate it if you could contact me to finalise this as soon as possible.

### Conference 2021 – Geelong , VIC

#### ***'Propagation in Action – Coast to Country' – Wednesday 26<sup>th</sup> to Saturday 29<sup>th</sup> May 2021***

I am hoping that by May next year we will be able to meet up 'face to face' for the 2021 conference planned in Geelong, VIC. Naturally this will all depend on how COVID 19 pans out over the next 9 months.

### STAY SAFE AND WELL!!!!

Pam Berryman

### 48<sup>th</sup> ANNUAL GENERAL MEETING

This was a first for us, our AGM was held via ZOOM, due to COVID19 pandemic restrictions, on Saturday 30<sup>th</sup> May. Of note was the acceptance of the 2019 minutes from our conference at Twin Waters of the Honorary membership of John Teulon and Ian Tolley.

International news focussed on the ramifications of Covid 19 on the operation of the various regions. The revision of the International website is proceeding, and support through corporate sponsorship has been very welcome. The ongoing board for Australia areas follows.

### IPPS Australian Region Board for 2020 - 2021

**Tony Vander Staay** [mtvanders@westlandnurseries.com.au](mailto:mtvanders@westlandnurseries.com.au) *President & International Director*

**David Daly** [david@conifer.com.au](mailto:david@conifer.com.au) *1<sup>st</sup> Vice President*

**Bruce Higgs** [bruce.higgs@bigpond.com](mailto:bruce.higgs@bigpond.com) *2<sup>nd</sup> Vice Pres.*

**James Burnett** [mjab342000@gmail.com](mailto:mjab342000@gmail.com) *Treasurer*

**Ray Doherty** [ray@azaleagroove.com.au](mailto:ray@azaleagroove.com.au) *Awards Committee*

**Puthiyarambil Josekutty** [josekutty964@gmail.com](mailto:josekutty964@gmail.com) *Area Meetings*

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### How Much Shade?

We all know that plants need light and heat to grow, and each variety has specific requirements. Screens are often used throughout the year for regulating the amount of light and heat, mainly in summer and winter to optimise plant growth.

In photosynthesis light interacts with chlorophyll, and converts water and carbon dioxide to produce the sugar glucose. In this process there is an optimum temperature at which the enzymes involved carry out the chemical reactions. If the temperature is too cold then conversion to sugars is slow and if too high the enzymes may start to denature and become inactive. For plants from cold climates this optimum temperature may be 10 to 20 C but for plants from the tropics the optimum may be closer to 25 C.

There are broadly three different types of screens: thermal, shade and insect. Most growers will have a screened area, whether it be a propagation house, greenhouse or some other form of protected cropping.

**Thermal screens** are designed to keep heat and radiation in a greenhouse during cold periods and prevent radiation and associated heat entering the greenhouse during hot periods, such as midday in the middle of summer. They are available in various forms and shade values suited to your crop. If installed some years ago





you may be growing something different now, so is your system best suited to you now? These screens trap warm air nearer the crop, and reduce the volume of air space to be heated and reflect radiation back to the crop, potentially reducing heating costs.

Fortunately thermal screens are moveable so that conditions can be adjusted and optimised throughout the day and night. Thermal screens can reduce incoming radiation and consequently temperatures during summer by as much as 10°C and maintain temperatures during the night by as much as 5°C. They can even out the heat load in the greenhouse and assists in maintaining humidity around the plants and reducing plant stress. Some of you may indeed have two layers of screen installed for more flexibility.

**Shade cloth** is used outside of the greenhouse or with shade (bush) houses to provide the right amount of light for optimum growth for the crop. A range of products offer shading from 30% up to almost total blackout (to control timing for flowering). Lighter coloured woven screens may diffuse the light and promote increased growth and crop density. Under extremely hot conditions shade house screens reduce the amount of incoming radiation and heat load by a few degrees and assist in maintaining humidity around the plants and reducing plant stress. Red and Blue coloured shade-cloths may also be used to promote flowering and control plant form.

*The use of screens needs to be managed carefully daily to make sure that plants are not stressed and remain actively growing. So back to the initial question ... how much shade?*

Using the Daily Light Integral charts on the next page and a table in a past edition (Spring 2015) of the newsletter can help you to select the appropriate shade material for different times of year for the plants you are growing now.



<http://aus.ipps.org/news-article/The-Propagator-Spring-2015-issue-47/43>

A simple tool that most of us carry with us is our smartphone. Just download a light meter “App” and you can measure the outside and undercover light levels in Lux. This will help you check if the plants you grow are getting enough light as well as help assess the effective shading of your structure. If the shade-cloth movement is controlled manually (retracting it when it is sunny and opening it when cloudy) then you should measure incident light, not by eyesight as your sight adjusts for low light conditions. As a rough guide to interpret results  $107.6 \text{ lux} = 1 \text{ W.m}^{-2} = 2 \mu\text{mol.m}^{-2}.\text{s}^{-1}$

On a typical summer day at noon in Southern Australia, outdoor sunlight may reach 108,000 lux ( $2,000 \mu\text{mol.m}^{-2}.\text{s}^{-1}$ ,  $438 \text{ W.m}^{-2}$  PAR or  $1,018 \text{ W.m}^{-2}$  total energy). That is a lot of energy. Many light meters designed for indoors use have a maximum display of 20,000 lux and so are useless for measuring light intensity on sunny days. Hooray for our mobiles!

You can also use the light maps on the next page in several ways. For example sunlight transmission into a double-poly greenhouse can drop to 50% in winter because of shading, severely restricting the variety of plants grown successfully. Optimum DLI values for a variety of plants can be found in the table reproduced from Ball in the above referenced Spring 2015 newsletter. So this helps you choose the best compromise of shade values for your location.

As an example if you want to grow Cyclamen, the best DLI is from 9 to 19  $\text{mol.m}^{-2}.\text{day}^{-1}$ , good growth from 5 to 9  $\text{mol.m}^{-2}.\text{day}^{-1}$  and minimum DLI is 3  $\text{mol.m}^{-2}.\text{day}^{-1}$ . Straight away you will see that for most areas of Australia they will need to be grown under shade, the amount depending on your location. In winter in Tasmania they would appear to be marginal without supplemental lighting.

From the same reference Tomatoes require a minimum DLI of 9  $\text{mol.m}^{-2}.\text{day}^{-1}$ , with good growth from 13 and best growth from 21  $\text{mol.m}^{-2}.\text{day}^{-1}$ . So if you want to start to grow plugs in a greenhouse that reduces the light by 20% then by adjusting the figures accordingly across Australia shows it may be difficult to get an early July start in Tasmania or the Dandenong area.

When looking at the charts don't forget potential shading of the crop around winter months when the angle of inclination of the sun is much lower. It is interesting to note the reduced light in Spring and Summer along the Great Dividing Range in Eastern states through presumably cloud cover. The Dandenongs also have lower light in winter than the surrounding region of Victoria.

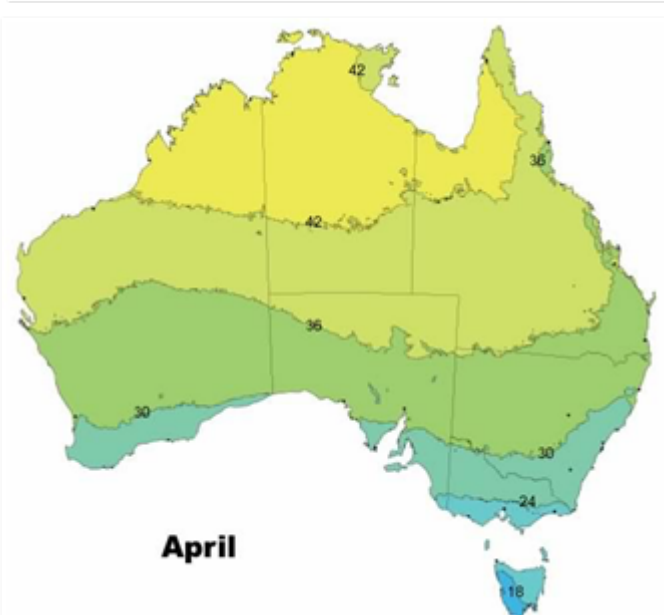
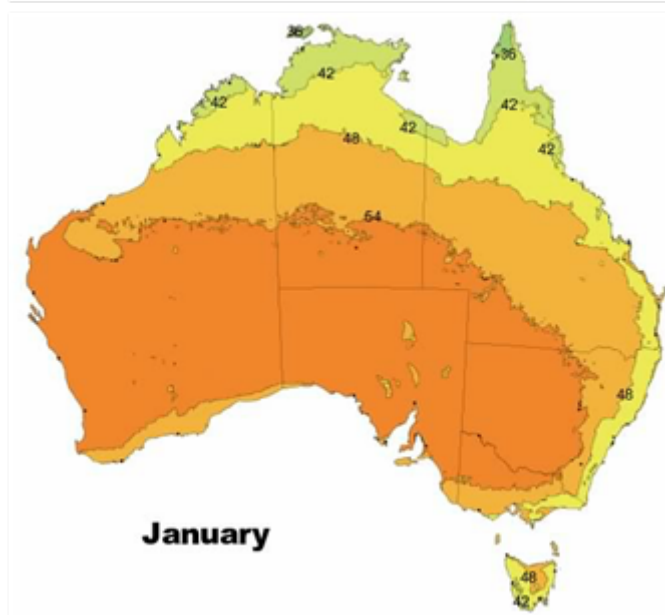
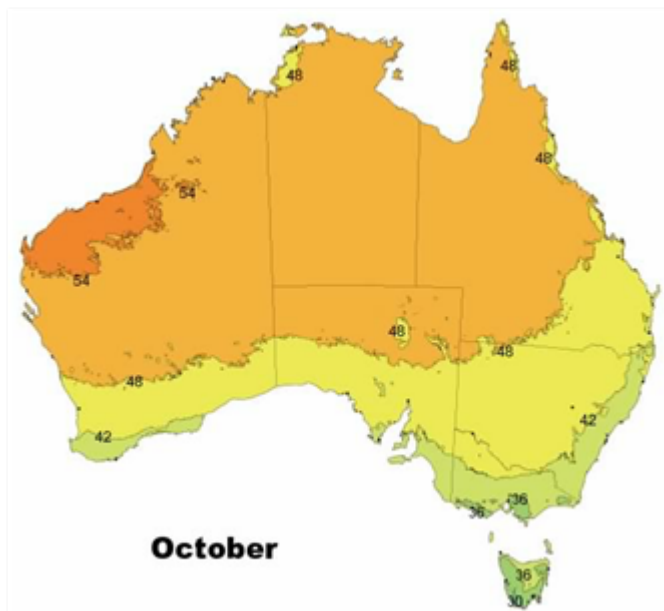
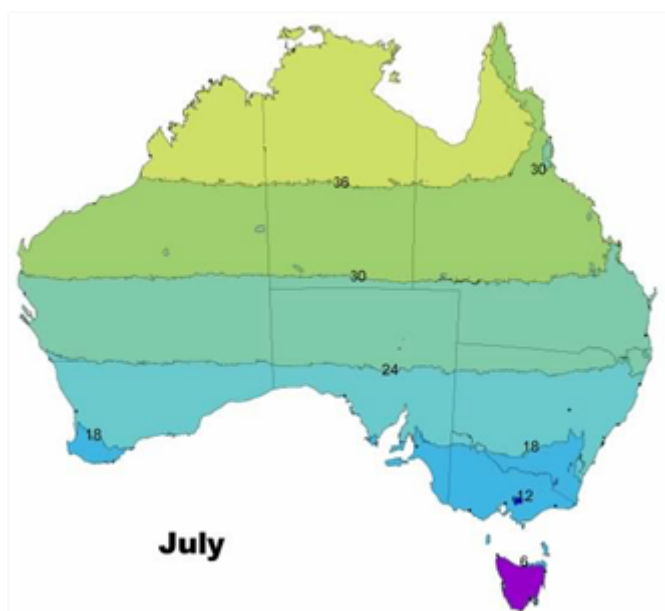
## Australia Seasonal Quarterly Daily Light Integral - DLI

These graphs are based on data from the Australian Bureau of Meteorology for solar exposure (available for any locations across Australia for each month of the year) from the period 1990 to 2011. Please have a look at these in colour at <http://aus.ipps.org/news>. Data in MJoules.m-2.day-1 have been converted to DLI units for PAR light in the 400 to 700 nm part of the light spectrum for months in the middle of each season (approximately 1 MJm-2d-1 = 2 mol.m-2d-1 of PAR light). As these are only daily average figures variation will occur through more or less cloud cover and inclination of the sun. The further south you go in winter the shallower the angle of the sun and shorter the day length. In Summer the sun is higher in the sky and there is more solar exposure and longer days the further south you go. Total daily Solar Exposure Data for each month across Australia in MJm-2d-1 can be found at :

[http://www.bom.gov.au/jsp/ncc/climate\\_averages/solar-exposure/index.jsp?period=apr#maps](http://www.bom.gov.au/jsp/ncc/climate_averages/solar-exposure/index.jsp?period=apr#maps)

mol.m<sup>-2</sup>.d<sup>-1</sup>

60-66  
54-60  
48-54  
42-48  
36-42  
30-36  
24-30  
18-24  
12-18  
6-12  
0-6





## The New Zealand Scene

By Hayden Foulds

Well, what a few interesting months it has been for both sides of the Tasman! While we watched in horror at the summer bushfires in Australia, New Zealand was not immune to mother nature's fury with first the White Island eruption and then one of the driest summers on record, even in areas that usually have some rainfall were dry. Even now, there are places still suffering – Auckland at one point was down to 50% of its water supply. Fortunately the situation is now improving.

But nothing prepared us for what was around the corner. I believe the first case of Covid-19 was reported in Australia in late January, New Zealand's first case a month later. The next few weeks saw border restrictions and then total closure to all but returning New Zealand residents. But life went on, although IPPS New Zealand was forced to cancel its conference scheduled for Invercargill in late April.

Nothing prepared us for the news on Monday 23<sup>rd</sup> March that the whole country would be put into Level 4 lockdown for a month in 48 hours. Everything bar essential services had to close. Certainly we went into a lot harder lockdown than Australia. Those 48 hours saw very brisk trade at garden cen-

tre and hardware retailers as people stocked up on plants and supplies to keep them busy at home. Vegetable seedlings especially were in high demand. One news report said that potting mix was the new toilet paper with demand so high.

Level 4 meant all garden centres, box stores had to close and nurseries could not operate. However within a few days, lobbying by the industry body New Zealand Plant Producers Incorporated (NZPPI) to the government allowed for very limited activities to be allowed in nurseries and garden centres. These were things deemed essential to keep plants alive like irrigation, pest, disease and weed control. Not allowed were propagation and production among other things, unless you were connected to food supply such as producing vegetable seedlings for market gardeners. There were also rules on things like sanitising work areas and tools, physical distancing, keeping vulnerable people away from the workplace and so on. Documentation had to be kept in your vehicle when travelling if you were stopped by the police so you could prove you were an essential worker.

In the last week of Level 4, permission was granted to do seed collection by a limited number of people. This was important for those growing New Zealand natives as some species only seed well every few years and others have seeds that don't store for very long. It came as a relief for many and meant that some certainty could go into their production planning for future years.

As an aside in New Zealand, under Level 4 there was no maintenance to be done on sport fields, golf courses and bowling greens which caused much angst. After lobbying, common sense prevailed and they were able to be maintained.

We were also fortunate to have a wage subsidy scheme put in place early in New Zealand where businesses could apply for up to \$585 per week for full time workers and \$350 for part time workers for up to 12 weeks. I know many nurseries and garden retailers applied for it and it was a big help to get them through the worst of it.

As restrictions eased under Level 3, garden retailers opened back up, although sales had to be done



contactless or by phone and the internet. Many retailers did adapt to this way of selling and many were kept very busy fulfilling orders from customers eager to stock up. I must also add we had very good weather during lockdown so people were able to get out into their gardens. This in turn meant nurseries were very busy replenishing garden centres and this has continued through winter and into spring with some reporting their best sales ever. Nurseries growing open ground lines like roses and deciduous trees were delayed in lifting plants and these appeared in retailers a little later than usual.

So what does the future hold? As I write this, Auckland has been placed back into Level 3 restrictions while the rest of the country is at Level 2. A bit of a shock to the system after life had pretty much returned to normal. Many of us had looked on in horror at what has happened in Victoria and our thoughts are with those nurseries in Victoria, as in any other part of Australia that are impacted by restrictions.

I feel the nursery industry will get through this as it has during other tough times. The nursery industry does seem very resilient to difficult times and we will get through this as Australia has with bushfires and New Zealand has with earthquakes. There will be some businesses that close; some may have been on shaky ground already financially while others may have owners close to retirement who will want to get out. With overseas travel off the radar for the foreseeable future, it remains to be seen if people get into their gardens. There are also numerous infrastructure and conservation projects being proposed as a means to create jobs, meaning more demand for plants for these, especially New Zealand natives. At the same time it seems more nurseries are starting up with an eye to supplying these so it will be interesting to see what happens in the coming years.

### **Potential IPPS Name Change**

By now you will have received an email advising that the International Board decided to hold a formal vote on the name rebrand for IPPS during the month of October. The voting will open on October 1, 2020 and close on October 30, 2020. As per our Constitution, it will be available for 30 days.

We would appreciate the return of your vote prior to 30.10.2020. If you have not received the email with the attachment detailing the voting options then please contact me.

Many thanks for your assistance in this matter.

Regards,

Pam Berryman

### **Challenge**

Most recognise that the industry is changing and that we need to adapt while remaining true to the reason for being expressed in the motto of “Seek and Share”. Ian Tolley as a well-respected member of the society has offered his thoughts on the need to change to fit current circumstances. This is a great response to the “challenge” posed in the last edition.

*I have the advantage of more than 50 years of active association with IPPS.*

*In the beginning there was a desperate need to learn much more broadly how we could grow plants better. There were limited opportunities to get help and to share ideas. It was why the IPPS grew and grew. It had resonance.*

*Today's communication environments provide a bewildering array of sources from which to draw from, but often without the need to share results. Many are “crack-pots” using the free opportunity to put their self-centred, distorted views, adding to the confusion of who to believe. Sorting out who to believe is increasingly difficult. The need for credible sources has never been more pressing and will continue to get more pressing.*

*IPPS needs to look more broadly on what matters in our world, increasingly threatened with extinction from global warming. It is the elephant in the room and the elephant is growing day by day.*

*Retaining, replacing and reconstructing the devastation to our plant world over the past two centuries is a vital core to our global existence but more important than our current generation, is what will or will not leave for our families and their children to rebuild in such a limited time. The carbon clock is ticking louder and louder.*

*IPPS can provide a platform to encompass an overall role of pushing for an understanding of the need for ever increasing replanting in every field within grasses to giant forest trees, and can mobilise people's understanding of how such an immediate focus on the WHY, and to show how to do it and IMMEDIATELY.*

*We have steadily failed to understand as IPPS members, what a key role we need to play as experts in plant multiplication in parallel with the world communities need to radically change attitudes for the survival of our future generations.*

*David Suzuki and a host of other respected world climate observers like David Attenborough, have been increasingly ignored by money market manipulators intent on profit before sustainability.*

*Trying to engage financial backing from the corporate world must come with conditions from them showing their awareness and active support of their role in giving back to provide a self-sustaining world and that message is more powerful than door knocking for money without focus or principal or objective.*

*We need to refocus in today's world on a dual attitude of programme selection to provide purpose and vision and practical ways to replenish our desiccated plant world.*

PLANT WITH A PURPOSE.

Ian S. Tolley OAM. CF.

## Positions Vacant

### Senior Horticulturist – Perth, Eastern suburbs

#### WHOLESALE NATIVE NURSERY

We are still on the lookout for the right person to join our team in this new role.

#### **\$120,000 package for the right candidate**

- Friendly Team - enjoy working with a diverse and friendly team
- Work Outdoors - with a wide range of native plants
- Room to Grow - career advancement opportunities

Use your passion and skill in horticulture to help provide quality native plants - greening our city with native flora.

If you have experience in horticulture and want to make a real impact to our environment, reach out for a confidential chat. <https://lnkd.in/gguijHR>

David Lullfitz, **Managing Director, Plantrite**

### Nursery Labourer - Lilydale.

We have a Nursery labourer position vacant to join our team in Lilydale. The role involves general nursery work and the successful applicant will have tractor and fork lift driving experience and be able to drive a manual ve-

hicle. Hours are Mon to Friday 9 to 5pm. Non smoking work environment. If you have this experience please email; [simon@larkmannurseries.com.au](mailto:simon@larkmannurseries.com.au)

## News

The latest issue of the Plant Varieties Journal (PVJ Vol. 33. No. 2) has been published by IP Australia. To download the current issue please visit <https://www.ipaustralia.gov.au>

## IPPS Challenge

*How have you coped with the effect of drought, floods, cyclones, fires and Covid 19 over the last 12 months?*

*It is likely that things will now change into the future, how should IPPS change to meet the challenges this presents us into the future, so that the society continues to be of value to horticulture and horticulturists?*

**It would be appreciated if you could forward your response to me so that it may be published in a future edition.**

Bruce Higgs

## Newsletter Editors Comment

We probably all have had to deal with the implications of the closing of state borders, and isolation through lock-downs. Your board is responding to the challenges presented by Covid 19 and are looking into new ways that the organisation can serve members into the future. David and Dermot are currently reviewing ways we can improve our contact with current and future younger members through social media.

Other regions are trying various forms of online and live streamed events. These have elsewhere become an accepted way to deal with current restrictions on social gatherings. Micro meetings and streamed site visits and the October Summit are examples of this. If you feel that you could assist with something like this for Australia then please contact your local board member or Pam.

If you are not already a member join up soon. The region also has a [facebook site](#) with horticultural news items, international events and photos as well from past conference tours and activities - search for "International Plant Propagators Society (IPPS) Australia". **Pass your extra printed copy of the newsletter around at work.** A copy of this newsletter and a selection of previous ones are available in colour at <http://aus.ipps.org/news>

Bruce Higgs - editor "the Propagator"

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