

# IPPS

Sharing Plant Production Knowledge Globally

# the Propagator



International Plant Propagators Society (IPPS) Australia

International Plant Propagators' Society <http://aus.ipps.org/>  
Australian Region - Newsletter Spring 2017 - No: 55

## INNOVATION

Things are not done now the way they were twenty years ago.

To remain competitive into the future we will need to be prepared to innovate. That may mean breeding our own varieties, or being an early adopter through license of new varieties. It could also involve being prepared to think outside the square and modify the way we do things.

All of this means that we need to be often exposed to a variety of

growing practices and methods. What better way to achieve this than experiencing what is happening around the world through IPPS involvement. That could mean going to Australian or other conferences, being involved in exchange programs, regional meetings or seeking the advice of some members either locally or from around the world. Put simply; living out the societies motto of "seek and share".

This edition features a members experience of participating in this year's European pre-conference tour, as well as some new equipment allowing growers to better understand the nutritional needs of plants or the soil media they are growing in.

It is the many opportunities available and contacts that can be made that make membership invaluable.

Bruce Higgs



*We used to grow plants in tin cans*



*Planrite WA TTA FlexPlanter robotic planting from Transplant Systems Australia seen at this years conference*

### THIS EDITION

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## President's Comment



Things are starting to ramp up for Spring, and no doubt we are all prepped for the busy season.

Last month, I was lucky enough to attend the IPPS international tour in Europe. Starting in London, the pre conference tour moved through England and Belgium on its way to the conference in The Netherlands, with a post conference tour to Germany. It was an excellent tour, and a great showcase of what it takes to be a part of the large and diverse horticultural market that Europe is. Many of the nurseries we visited participated in cross border trade, and in the case of the English nurseries, cross channel trade. The term "Plant Factory" was coined by a couple of the participants, and it was quite an accurate description of some of the larger places. The scale of these businesses was mind boggling. And the techniques, the automation, planning and operations that went into running them was extremely impressive.

I can remember Steve Vallance saying, after he attended the last International tour in England, that it is something everyone should try and do. And I can see what he meant. It really highlighted to me what being a part of IPPS can do in terms of opening doors to other ways of doing things, and seeing how the challenge of keeping the world supplied with plants is being met globally.

Whilst we moved from venue to venue on the tour, I was able to meet with the international board, and sit in on a few board meetings. It was a chance to put faces to some of the names of long term IPPS members, and to get to see the inner workings of the international side of the IPPS. While each region has its own specific issues, it is also clear that we face some common challenges as an industry, regardless of where we practice our craft. The importance of being able to 'seek and share' amongst each other is still as relevant as its ever been. And I stress the need to encourage membership and participation in the organisation. Because the more of us there are sharing, the greater the benefit to us all.

There was a good contingent of Aussie members on board for the tour and conference. It was great to see the Australian region represented so well at the international level, and I thank those that came along for their participation.

Looking forward to the International tour and conference being held in Queensland in 2019, I think we have a good benchmark of what to aim at in terms of providing a great experience. Ray Doherty has done some excellent work in getting the conference organised and the venue arranged. And as I write this, Clive Larkman and Pam Berryman are hard at work planning out a pre-conference tour. They are aiming to start the tour in Cairns, and travel down to the conference on the Sunshine Coast. I'm excited to see what they come up with.

Heres to a productive and successful season for you all...

John Messina

## Executive Officer's Report

### IPPS Office

The IPPS Office slows down at this time of the year so not much to report on from the administration



side of things, apart from the running of the Office is going smoothly.

### Subscriptions

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

### Contact Detail Changes

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.

**2018 Conference – HOBART, TASMANIA – "Explore the Possibilities"**

**Wednesday 23<sup>rd</sup>  
May to Friday 25<sup>th</sup>  
May 2018**



Every year IPPS Australia holds a conference, an essential event for anyone in the plant propagation industry. Next years conference is shaping up to be an event 'Not to be Missed'...

## IPPS Membership

Do you know of anyone who would be interested in joining IPPS? The best method of recruiting new members is by word of mouth by existing members. Who in your organisation or local area might be interested in joining?

Download the membership form from <http://www.ipps.org.au>

or tell them they can join online at <http://www.ipps.org/register>

Don't forget to mention some of the benefits of joining IPPS including:

- Great conferences and area meetings.
- Exchange opportunities.
- Free, unlimited access to all IPPS papers online - a great bank of plant knowledge.

## Seasol Six Pack

Applications are open for the chance to be a 6 pack member in Perth. You could have the privilege to meet some of the industry leaders while being sponsored by Seasol.

All that needs to be done for either of these is **submit an application by Feb. 2018**. Contact details are on the IPPS website (see [www.ipps.org.au](http://www.ipps.org.au)).

## Rod Tallis Award

It is that time of year again when our young propagators need to be nudged and encouraged to apply for this prestigious award

A worthy propagator at the start of their career can gain an award that they can be proud of and mark the start of a successful career in horticulture. All you need to do is report on some propagation work you have undertaken. Then go to the website and apply soon.

Information on Pre-Conference tour will be available on the website shortly [www.ipps.org.au](http://www.ipps.org.au)

Registration and program details will be available shortly on the website [www.ipps.org.au](http://www.ipps.org.au)

*Make a note of this date in your diary.*

Pam Berryman

## Highlights from the 2017 IPPS International Pre-conference Tour

The height of the European summer was the ideal time to host the IPPS international tour for 2017, with wonderful warm weather served up the whole way.

The tour began from our base in Guildford, just south of London, with 4 days seeing some of the nurseries in the South of England. Day one took us to **Fairweather's Nursery**, a 50 year old Nursery in the New Forest region of Hampshire. They are renowned growers of lavenders and agapanthus, and the nursery is home of the national agapanthus collection. Plants are supplied throughout England, Ireland, France, Italy, The Netherlands and The United States.

Next, we were welcomed to **New Forest Plants** by Mike Norris. New Forest plants is part of the Newey/Roundstone Nursery group. It produces about 2 million pots annually of herbs, perennials and alpine plants, on 30 acres of both covered and uncovered nursery.

Day Two was spent at the Royal Horticultural Society (RHS) Gardens at Wisley. The RHS provides advice and technical support to its members, and also supports training in horticulture for both professional and amateur gardeners. We viewed the display gardens, as well as a behind the scenes look at the scientific facilities and plant trials that were taking place. A great highlight was the library and herbarium, with



*Above: Members check out the national agapanthus collection at Fairweathers Nursery.*



*Above: Mike Norris explains the potting machines at New Forest Plants.*



*Above: David & Di Cliffe browse the RHS library.*



Above: Display at the Hampton Court Flower show.



Above: Old London town



Above: Robotic planting machine at Newey Roundstone

specimens dating back to the time of Charles Darwin.

The RHS also runs flower shows such as the Chelsea, Tatton and Cardiff shows. We visited the Hampton Court show, the second major national show after Chelsea.

Day three visited the famous **Hillier Nurseries**. Founded in 1864, it is now run by the 5th generation of the Hillier family and employing almost 500 people. Over those years they have been responsible for the introduction of many 'staple' varieties in the UK market. It is a leading producer of shrubs and perennials for distribution nationwide. **Hillier Trees** is the division of the company producing advanced trees. They have 600 acres, growing about



Above: The Walbertons despatch shed

750,000 trees in ground, and in large containers.

Our last day in England took us to **Walbertons Nursery**, which propagates about 500,000 plants annually. Combined with starters from its partner nurseries in the Farplants group, close to 4 million plants are potted across 8 potting machines. We were shown around the facilities by IPPS member Tim Lawrance-Owen, including the massive shed, or "finishing center", where all the stock is despatched from.

**Newey Roundstone** is one of the UK's largest propagators and growers of licensed varieties. Over 190 million young plants are produced on almost 45 acres. They are produced from both seed and cuttings. This nursery has some of the most advanced facilities you are

likely to find anywhere, with specialist mechanisation and innovative growing and handling systems.

Taking the ferry across the English channel, our tour headed into picturesque Belgium. **Willy de Nolf Nursery** was the first visit on the continent. They produce around 1600 varieties of trees, shrubs, hardy perennials, conifers and climbers on 75 acres. The well laid out site would be typical of the large, flat nurseries we would come to see this side of the channel.

**Solitair Nursery** on the other hand, is not typical of anything, pretty



Above: An introduction to some of the new varieties Hillier's are developing.



Above: Some of the offerings at Solitair Nursery

Below: Growing areas of Willy de Nolf Nursery





*Above: Tour participants group photo, in the amazing covered display area at Solitair Nursery.*

much anywhere. For over thirty years the nursery has produced unique, standalone specimens of advanced trees and shrubs for a very specialised market. (Hence the name 'Solitair'). Walking through some of the almost 100 hectares of grounds is a once in a life time experience.

The area of Lottum, known as 'the rose village of the Netherlands' produces about 70% of all the roses grown each year in that country. Our time here was spent seeing three of

the most impressive nurseries in the district. **Rotjes Young Plants** produce a staggering 25 million rooted cuttings annually, for supply to nurseries around Europe and the UK. They manage 10 acres of mother plants with quality controls to ensure high health and uniform quality. Cuttings are prepared in a purpose designed room, and rooted on the ground over heated concrete.

**Piet Vergeldt Nursery** has 45 acres producing a range of Acer, Cornus, conifers, and Magnolias. Production occurs both in ground and in containers.

**Lakei Nursery** is one of the foremost rose and lilac producers. They market 150 varieties, many under their own 'Parfume de Nature' brand.

As far as pre-conference tours go, this was about as big as they get. Travelling across 4 different countries, with visits in 3 of them was a real journey. Testament to the hard work of the organisers, the whole tour was extremely well organised and allowed for members to enjoy a long tour of what the IPPS does best - seeking and sharing.

John Messina



*Above: Tony VanderStaaay checking out Acers at Piet Vergeldt.*



*Above: Roses at Lakei Nursery*

## Measuring for Management

What gets measured, can then be managed.

How often do we look at our plants and know something is not quite right?

The best look and optimum form in our plants, is one of our targets and goals with a cost effective price of production.

But when the leaves are showing mineral deficiencies or other influences like pest damage, we need a quick and speedy resolution to help us understand what is happening and more importantly, why.

This article will focus on the importance and benefit of on-site testing for a range of minerals and influences like pH of our growing media.

Typically, we rely on our potting mix manufacturer and supplier to ensure that the fertiliser value and content of our mix is close to what we believe is the ideal range for a particular plant type.

This basically means the pH range is optimized/ adjusted with liming agents, and the fertiliser analysis and longevity of supply of the fertiliser is designed for our crop.

But what if it is wrong or not done properly?

How would we know in the short term, for long term crops?

Seedlings would show quickly any issue but the average tree or shrub crop, would be weeks or months into a production cycle and no alarm bells are ringing until.....leaves show deficiencies or stunted and poor growth/ form alert us to an issue.

A very quick and easy way to test your potting mix is the use of hand held testers for markers like pH, EC and minerals like Calcium, Nitrate Nitrogen, Potassium, and Sodium.

The modern testers available now can give very accurate and quick results, on-site, at your nursery to

either confirm a supplied test from a potting mix company or show that all is good or possibly, not so good.

The same test units can also test your irrigation and stored water as well as providing critical insights into leaf and tissue results.

Historically, we have sent our samples away to a Lab for testing and this should still continue for tests like phosphate, minerals and ratios, or if you need an independent test to discuss with your supplier what they have given you.

The other important factor is that results are constantly changing due to temperature, rain/ irrigation, plant growth etc.

The liming agents added to the base materials of peat, properly composted bark, coir, and sand/pumice etc. are influencing pH over time and that change can and will influence how the applied fertilisers are performing to optimize growth, or not, for your plants.

The acidification of mixes from certain fertilisers is also well understood, so simply the supplied pH of any mix will change over time and more so, for longer term crops.

New selective ion membrane testers supplied by Cazna Australia are now on the market that give you the tests to determine any changes to your mixes and also to test what your plants are doing in the mix.

pH. A simple few drops of your irrigation water on the tester gives you Lab accurate results.



The same tester can be used to determine the pH of your potting mixes by using the water extract from your potting mix.

The potting mix test method for getting the water, is well described as developed by IPPS member Kevin Handreck, in the book "Growing Media" by Handreck and Black, 4<sup>th</sup> edition.

The same test methodology is for EC, the measure of soluble salts in your potting mix.

Where this new technology comes into its own, is where we can now measure selected minerals.

Nitrate Nitrogen is a vital influencer of plant growth so knowing what the levels in your water, plant tissue or mix, helps you get what you want.

If you're growing Blueberries for example, the nitrate form of Nitrogen is a no no, as the plant

does better with other types of nitrogen.

A quick and simple on-site nursery test, will give you the measure of what nitrate concentrations are in your nursery water, mixes or tissue samples.

For tissue tests, I refer you again to the "Growing Media" book, where the 'how to' is presented.

The other tests with these new selective units are for:

Calcium, critical if your growing crops like apples and many other plants,

Potassium,

Sodium

Sodium Chloride.

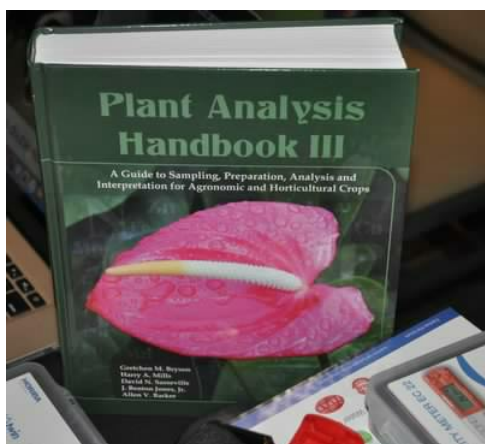
My suggestion is that regular tests are carried out to measure and manage the critical influencers of pH, EC.

Depending upon your plant type and varieties at your nursery, the other tests are adopted to what is relevant for you.

Data log the results so that you can have records of results against timelines, then plot these on a spreadsheet/ graph so that visual trendlines and data become a key measure for your plant management.

This way, you can then correlate what your tests are showing you against your visual assessment, and other indicators, of what is ideal for you at your site with that plant type, for your customer base.

In time, your database can then become a very useful tool to show how long your fertilisers are performing in a mix, subtle pH changes over time can be measured and managed and that forward notice of pending deficiencies can be corrected before that evidence shows in the leaves or other plant indicators.



There is very good American data showing optimum ranges for the discussed minerals and pH in a very wide range of plants grown.

But this is only an indicator and it's data from the other side of the world.

If you develop and manage your own results, this I'd suggest, is the best way for you to then manage and get the best possible plant growth and form.

Share your results of the tests with other growers of like crops. Pool your resources?

Some optimum crop examples are:

Peace Lily or *Spathiphyllum*

N	3.30-5%
K	2.30-6%
Ca	0.8-2%

Pony Tail Palm or *Beaucarnea recurvata*

N	1.5-2.1%
K	1.7-3%
Ca	0.5-2%

African Violets or *Saintpaulia ionantha*

N	2.1-6%
K	3-6.5%
Ca	1-2%

Source: Plant Analysis Handbook 111, Gretcham M. Bryson et al.

So in summary, seasonal and weather effects e.g. heat, rain and soil pH, may lead to variability

## SOUTH AFRICA 2018 YOUNG HORTICULTURISTS APPLY NOW

For the opportunity of a lifetime, it is now time to apply for the **Southern African Exchange Program**.

This IPPS project aims to give young propagators at the start of their career the opportunity to gain experience of the industry elsewhere and to build a better understanding of each country.

**In March 2018 the person chosen will spend approximately 3 weeks in South Africa hosted by local members**, where they will work and visit other nurseries and places of interest in South Africa, including tourist venues, plus attend the IPPS Conference.

The exchange program is sponsored by Australia and Southern Africa IPPS. After the trip the chosen propagator will be expected to attend the Australian IPPS Hobart Conference in May 2018 to talk about their experience.

Now that you are thinking about this or you know someone who may be suitable, check the following to make sure of eligibility:-

- You must be over the age of 18 and in the early years of your career of growing plants.
- You must be able to travel to South Africa in early March 2018 and attend the Hobart Conference in May.
- Your employer must support this application and your time off work.
- You must be prepared to make notes and take photographs of your great experience and report back at the Australian IPPS Conference.

**If all of the above suits you and you would like to be hosted in South Africa (at no cost to you, except spending money) and gain from the experience. Then send in the application form which is available on the IPPS website [www.ipps.org.au](http://www.ipps.org.au) by the end of December 2017.**

throughout the year, affecting how a plant uses and performs in the applied fertilisers and potting mix.

A fellow grower commented to me: "Plant variability, when grown with approximately the same CRF formulation, can show major differences with the nitrogen sources.

Ammonium and urea dominant fertilisers gave slower and more leggy growth with Grevilleas; whereas those with equal ammonium and nitrate grew faster (ready for sale earlier), had better root structure and top growth"

The ability to have you doing your own accurate tests, monitoring, storing the data/results and then using these results to manage your crop can have major influences and benefits to your crop quality and profitability.

Robert Reynolds

## News

### Vale: Charles (Charlie) van Loon

Dad passed away on the 11<sup>th</sup> of July peacefully surrounded by his loved ones at Grace McKella Palliative Care in North Geelong.

Charlie ran Geelong Tubestock Nursery with Trish van Loon, and I believe it was one of the best propagation nurseries in the 70's and 80's. He was a pioneer in the use of technology such as Fogging, Fertigation and Soilless Media for cutting propagation and loved a challenge. Dad was more the production person who loved the challenge of a

crop that no one else could propagate. He also loved to produce perfect plants.

As well as a member of IPPS and NGIV he sought out the latest methods of growing especially from the USA.

Trish contributed greatly to the business then through her botanical training at Burnley. Mum did the Admin/Financials, raised 4 kids and helped organise lots of promotions like Ceanothus Blue Pacific, Polygala Grandiflora, Callistemon Endeavour and lots more. She was a massive contributor to the success of the business, and probably like a lot of Nursery owner's wives back then, didn't get any recognition.'

He was the father of Ingrid, Peter, Carl and David, father-in-law of Malcolm, Cristina, Briony and Tammy, and Opa to Tom and Joe, Jessica and Charlie, Max, Gus and Emma. May he rest in Peace .

### IPPS Pacific Rim Conference 2018

Greetings from IPPS Western Region, We're delighted to invite our fellow IPPS members and friends to join us in Hawaii for a **Pacific Rim Conference**. We've been able to secure excellent room rates, interesting speakers and many wonderful tour locations. A three night, two day pre conference tour will begin with a reception on Saturday, July 28 at Ala Moana Hotel in Honolulu.

Enjoy all-day tours on Oahu Sunday and Monday and a free day on Tuesday to relax on Waikiki and fly onto Kona on the Big Island. We'll kick off the conference with a reception and registration at the Courtyard King Kamehameha in Kona Village (our convention hotel) on Tuesday evening.

**Please mark your calendars: July 28<sup>th</sup> – August 4<sup>th</sup> 2018**

## Newsletter Editors Comment

For those of us in the southern parts of Australia this year we have had a reasonably cold and dry winter, whereas the northern parts have been warmer than normal. It was great this time to have a contribution on the International Tour.

If you are not already a member join up to the region's **facebook site** - search for "**International Plant Propagators Society (IPPS) Australia**" and start contributing by "liking" it and posting. We now have about three hundred and ninety Facebook member likes. There are many photos there as well from past conference tours and activities.

Don't forget that this newsletter and many past copies are available on the IPPS website at [www.ipps.org.au](http://www.ipps.org.au)

*Pass your extra printed copy of the newsletter around at work.*

Bruce Higgs - editor  
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## 2017 -2018 IPPS Calendar

11 October - 14 October 2017	Eastern Region Annual Conference, Grand Rapids, Michigan
17 October - 20 October 2017	Western Region Annual Meeting, Wilsonville, Oregon
28 October - 1 November 2017	Southern Region 42nd Annual Conference, Dallas, TX
18 November - 19 November 2017	Japan Region Annual Conference, University of the Ryukyus, Okinawa prefecture, Ryukyus Island, Japan
March 2018	Southern African Region Conference, Port Elizabeth, Eastern Cape Province, South Africa
26 April - 29 April 2018	New Zealand Conference, "Mind Blowing" Palmerston North
24 May - 25 May 2018	Australian Region Conference, Hobart, Tasmania
28 July - 4 August 2018	Pacific Rim Conference, Western Region, Honolulu, Hawaii