Cymbidium Chatter

A seedling of (Pure Origins X Ocean), courtesy of Greg Bryant.

Issue 33 (Vol. 2 No. 5): October 2021

Contents

Latest News

Welcome to the fifth issue of *Cymbidium Chatter* for 2021. COVID continues to restrict activities in the eastern states of Australia, and it is unlikely any meetings will occur for the rest of the year. With the vaccine rollout well underway, 2022 will hopefully see something approaching normal.

Many of you will probably have heard by now that Pauline's Laboratory Service has been sold to Barrita Orchids, who have agreed to honour the existing orders. Pauline has also advised that any replates or clones already processed by them will be grown on and supplied by them to the customer, so payment for these services will still be to Kevin & Pauline.

Any new work can be sent to Barrita Orchids and full details of their laboratory services (including cloning and treatment with Oryzalin to induce tetraploidy) is now available on their website at https://barritaorchids.com/pages/lab.

Kevin and Pauline wish to thank everyone for their patronage and friendship over the years and wish you good orchid growing.

Edited by Joshua White. Please send all contributions to jwhite88@gmail.com.
Previous issues are available at https://www.cosv.com.au/publications-and-resources.

Nursery Profile: Bryants Orchids

Editor: *It is my hope to feature an interview with a grower, enthusiast, hybridiser, or nursery operator in each issue. For this issue, Greg Bryant of Bryants Orchids has kindly agreed to share the story of his family's nursery and some photos to accompany it.*

Alvin Bryant started growing Cymbidiums in the 1950s. During the 1960s, he began exporting Cymbidium cut flowers to northern hemisphere markets and commenced a Cymbidium hybridising program at his nursery in Moorebank, in south-west Sydney.

Cym. Joanstar 'Sensuous'

In 1968, following a severe frost that decimated his plants at Moorebank, Alvin decided to move his nursery closer to the coast at Kurnell, in Sydney's south. To concentrate full time on his orchid business, Alvin resigned as deputy headmaster of Campbelltown High School that same year.

The hybridising and laboratory service part of the business partnership was named AR Bryant (Alvin Richard) while the cut flower exporting part was named JR Bryant (Joan Rose).

In 1991, Bryants Orchids partnership was formed by Joan Bryant & Greg Bryant. Alvin continued to do most of the Cymbidium hybridising up until 1995, after which Greg took over all the Cymbidium hybridising so that Alvin could concentrate on Cattleya development at his Queensland nursery.

Cym. Wonder Island 'Gee Bee'

Cymbidiums have been a significant and important part of life for the Bryant family for two generations.

Editor: *How has Bryants Orchids developed over time?*

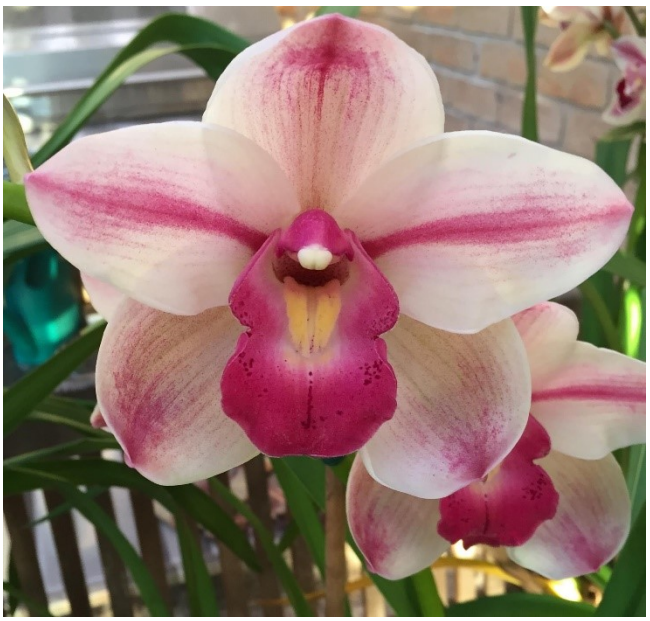
Bryants Orchids has changed significantly over the years. Initially, cut flower varieties were mostly diploid or triploid. The main focus of Alvin Bryant & Bryants Orchids has always been the development of tetraploid standard Cymbidiums.

Today, all of the Bryants Orchids Cymbidium parent stock is tetraploid and Bryants Orchids is

situated on 2.5 acres (just over 1 hectare) of land on the NSW central coast. There is no longer a tissue culture laboratory and cut flowers are not sold or exported. The main activity is Cymbidium hybridising.

Editor: *What challenges have you encountered whilst growing your Cyms and how did you overcome them?*

The nursery at Kurnell saw most stock grown under cover in greenhouses, so fungal problems were minimal. The main pest problems were two spotted mites and scale. Regular insecticide and miticide spraying along with predatory mites were used to help control these.



Cym. Serene Splash 'Angela'

On the Central Coast, the Cymbidiums are grown under shade cloth. To control fungal disease, Mancozeb Plus is sprayed during high humidity and rainfall periods. Two spotted mite is not a problem, and an occasional insecticide and oil spray is used if scale is detected.

Previously, due to climate change and warmer night temperatures in coastal Sydney, it was noted that many of the mid to late season varieties were not initiating and flowering. These days, the nursery on the Central Coast is seven kilometres from the coast and cooler at night, with the occasional light frost in mid-winter. Fortunately, the mid to late season varieties are once more getting the right initiation temperatures/conditions and are flowering again.

Cym. Coraki Glowing 'Kentlyn'

Editor: *How do you select your crosses and what do you look for in the seedlings?*

Shape and colour are always important considerations. The flower segment (including the labellum) dimensions and colour are always assessed and evaluated. Generally, petals and sepals must be rounded and over 50mm wide to be included in the hybridising program. Big lips are considered as desirable.

The other considerations include growth rate, growth habit including foliage length, flower count, flower size, flower substance, flower life, flower arrangement, spike habit (straight is preferred), spike length and spike production.

Cym. Hypno Fury 'Treasure'

Editor: *What is your favourite hybrid from your own work?*

That is a very hard question. I have a number of favourites and these favourites change over time. The two of my hybrids that have received FCCs and the many others that have received AMs and HCCs are obviously all regarded fondly.

Some of my current favourites would include: Coraki Glowing 'Kentlyn', (Fresh Charisma x Justis Pearl) 'Guru', (Pure Origins x Ocean) 'Yolk', Green Connie 'Bianca' and Kimberley Splash 'Tee Pee'. The Kimberley Splash cross was originally made by Peter Sunderland, but 'Tee Pee' came from a remake that I made using different Khan Flame and Valley Splash varieties. However, this season the hybrid that really impressed me is Hypno Fury 'Treasure'. As a mature plant, it satisfies many of the selection criteria that I am looking for when hybridising.

Editor: *Do you have any advice for hobbyists who may wish to start their own commercial operation someday?*

My main advice would be to do the sums and a detailed business plan before launching into growing Cymbidiums commercially. Have a look around Australia and it becomes apparent that there are not many people who make their main, let alone sufficient, income from growing Cymbidiums. Over the years, I have seen many people who came into the industry thinking that it would be easy to become a successful commercial Cymbidium grower. Unfortunately, not many of these people ended up making a go of it. Look at prospective markets – what are you

Cym. Pepper Blaze 'Wraith'

going to grow, how many are you going to have to grow to turn over, say, $75,000 per season?

Cym. (Fresh Charisma X Justis Pearl) 'Guru'

The most important things to consider when setting up are water supply, water quality and climate. Frosts and extreme heat are not conducive to Cymbidium production. Don't forget that it takes on average 3-5 years from flask to have a decent size flowering plant that is saleable for most markets. Not every season will be a good one and the Cymbidium season is at best only 6 months long.

Good luck and best wishes to all those considering starting a commercial Cymbidium operation. It is not easy, but it can be done and there are many willing to help with advice, including myself.

Editor: *Just for fun, what's the oddest or most interesting piece of Cymbidium-related trivia you've come across?*

A few years ago, I came across very interesting research that included the three Australian native Cymbidium orchid species in its scope. Its title is "Crassulacean acid metabolism in Australian vascular epiphytes and some related species".

In summary, Crassulacean Acid Metabolism, or CAM, is where the light energy from the sun is absorbed during the day and stored for photosynthesis at night. This a very efficient method of photosynthesis and importantly reduces the plant's water requirements.

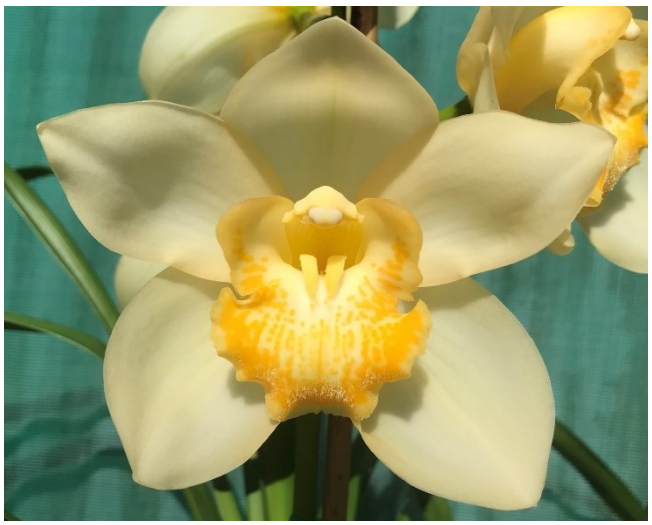
The study concluded "that CAM is widespread in Australian epiphytes. It is most prevalent in species found in exposed microhabitats where the growing conditions are characterised by relatively high light intensities and short but frequent periods of water stress." The three native Australian Cymbidium species were studied and *Cymbidium canaliculatum* was found to use CAM. It is the only Cymbidium species in the world that relies on CAM.

Cym. Kimberley Splash 'Tee Pee'

The study also found that *Cym. canaliculatum* has stomata (commonly called pores) not just on the underside of its leaves, like most Cymbidiums, but on the top side as well. Compared to other Cymbidium species, *Cym. canaliculatum* has very few stomata and this along with its use of CAM is very important for water conservation.

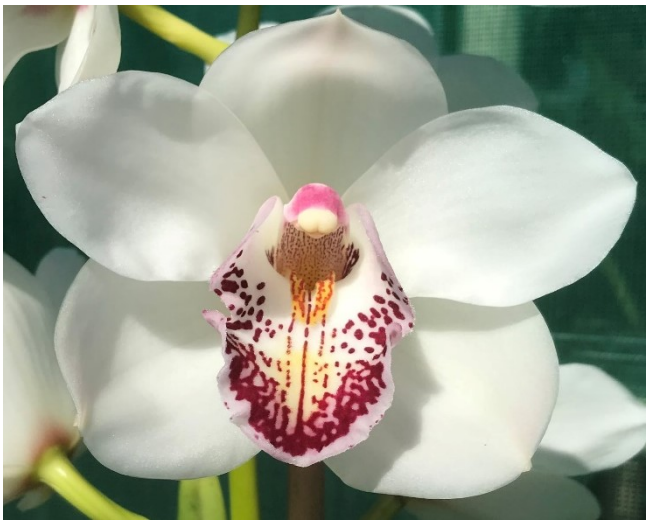
In a world where water is becoming an increasingly valuable and scarce resource, *Cym. canaliculatum* could become an extremely important parent in hybridising if it can pass these traits for CAM and water efficiency on to its progeny.

Cym. Connie Island 'Ariadne'



Cym. (Pure Origins X Ocean) 'Yolk'

Cym. Devon Snow 'Drift'

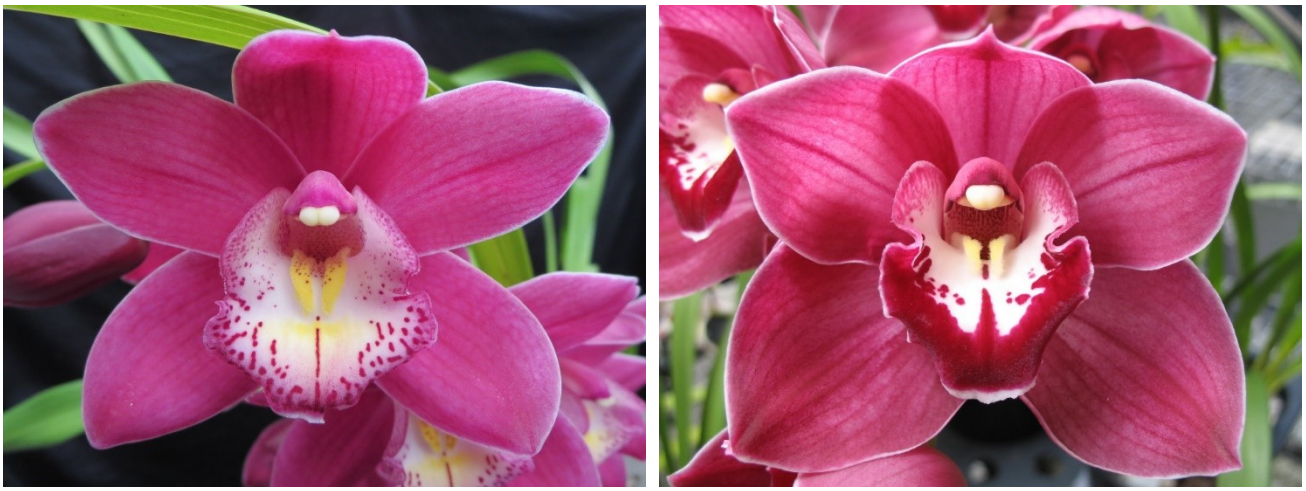


Cym. (Justis Pearl X Cronulla Era) 'Ego'

Nado Lenkic's Latest Seedlings

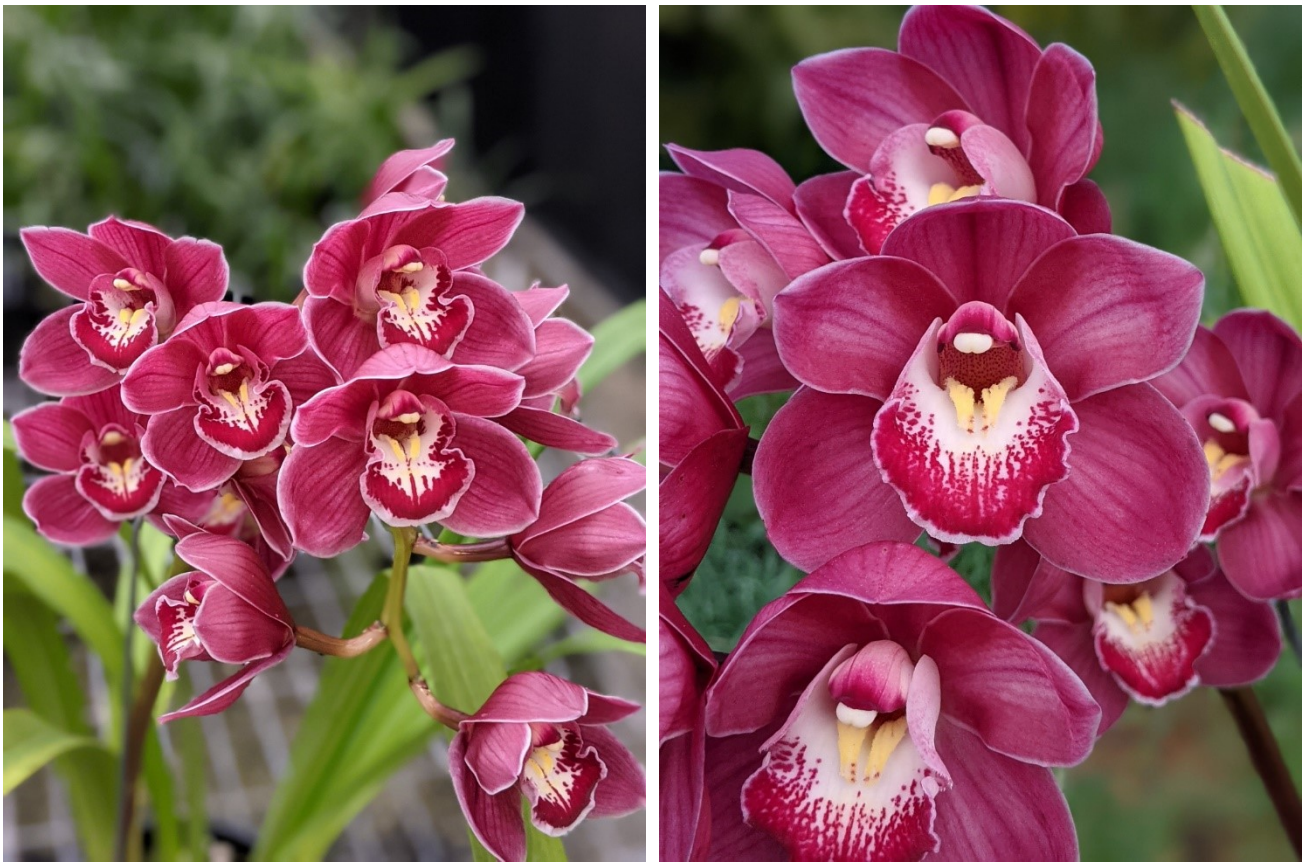
Situated in Kalamunda, Western Australia, Springfield Orchids is owned and run by Nado Lenkic. For this issue, he has kindly provided photos and commentary for five tetraploid crosses that he has flowered this season.

Cym. Xquisite (Valley Olympic X Royalty)



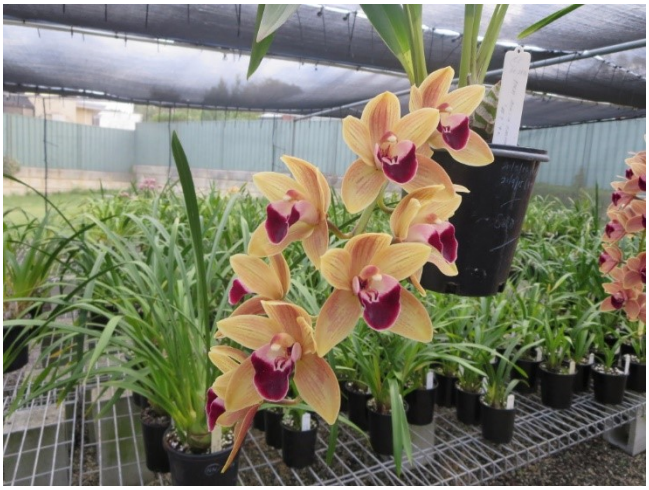
The two parents of the cross – Valley Olympic 'Pink Perfection' and Royalty 'Exquisite'.

Nado: *The Xquisite cross has achieved what I was hoping for – nice colourful blooms with good spacing and presentation. No duds in the first half a dozen that have flowered.*



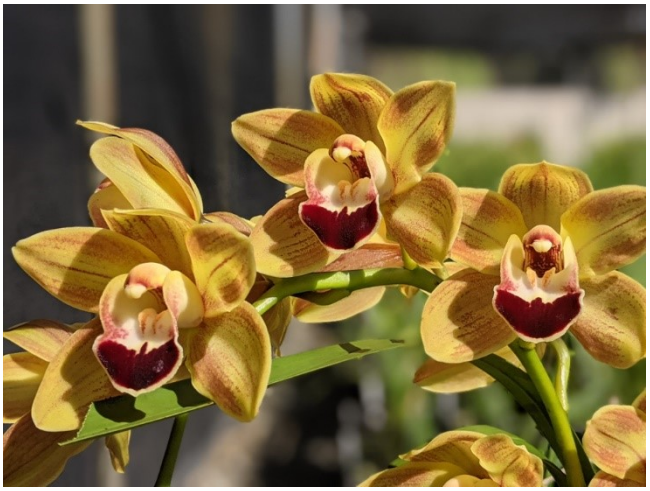
Two Xquisite seedlings that were in bloom during July/August 2021.

Cym. Michael (Memoria Amelia Earhart X Beau Guest)



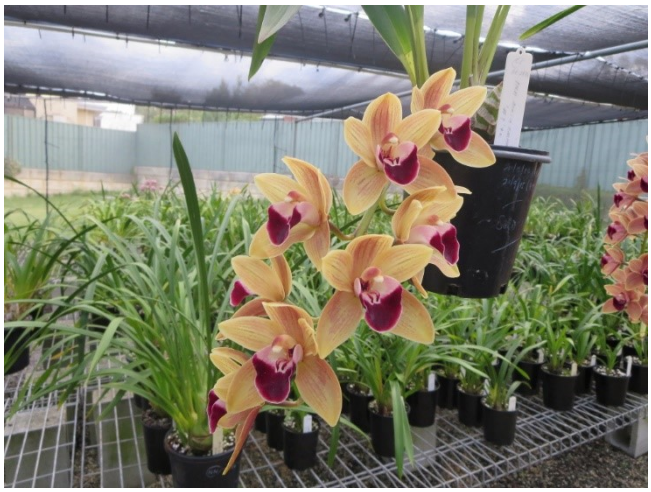
Nado has several selections of Memoria Amelia Earhart. In this case, he used #3 with Beau Guest 'Glenn'.

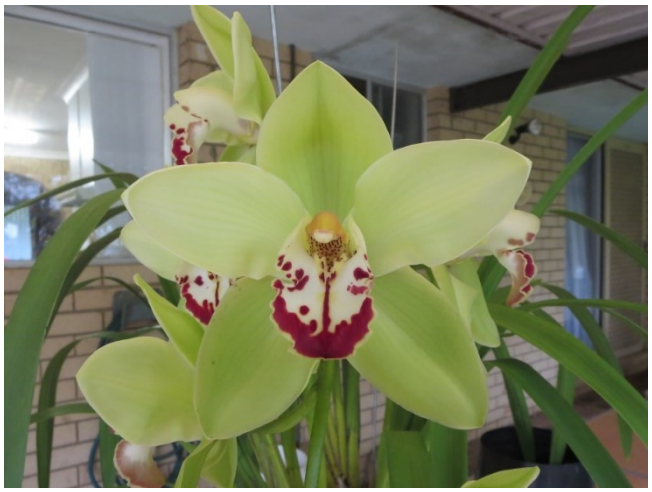
Nado: *The Michael cross has been of a very high standard, with lovely arching/decorative intermediates in pleasing warm autumn tones. The alba carrying qualities of the cross is a bonus.*



Three different seedlings from the cross. In each of the three crosses involving Memoria Amelia Earhart there are examples of the brushmarks that it can pass to its progeny.

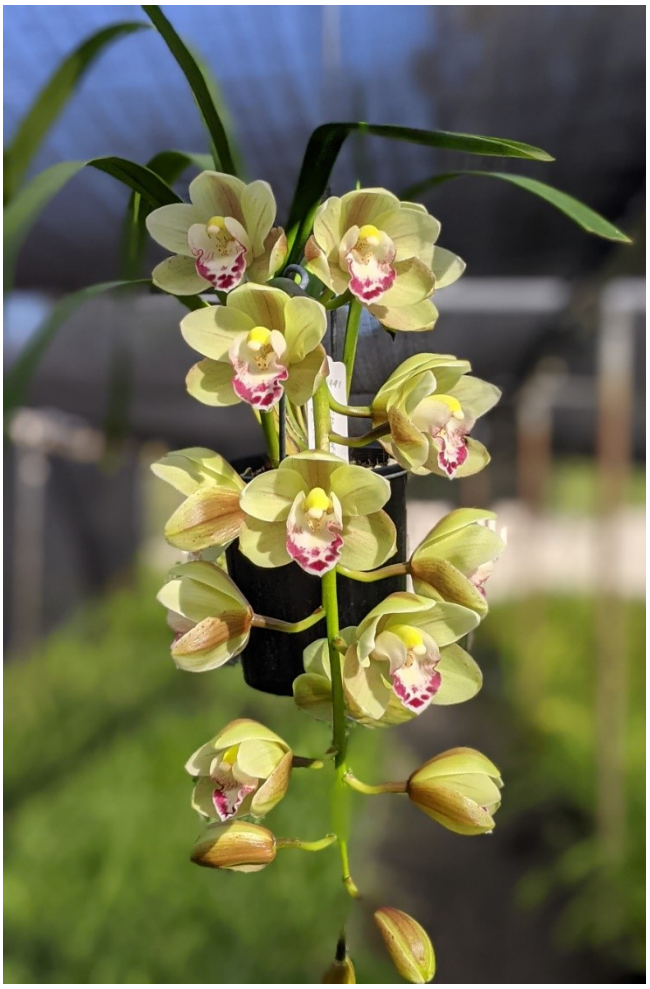
Cym. Tesio (Memoria Amelia Earhart X Daniel Thomas)

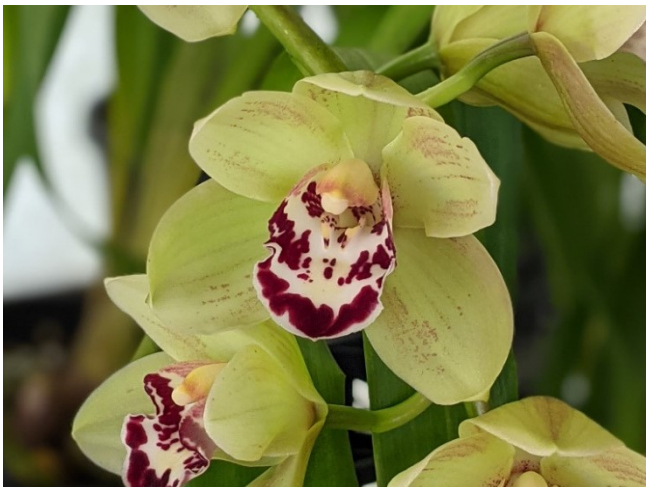


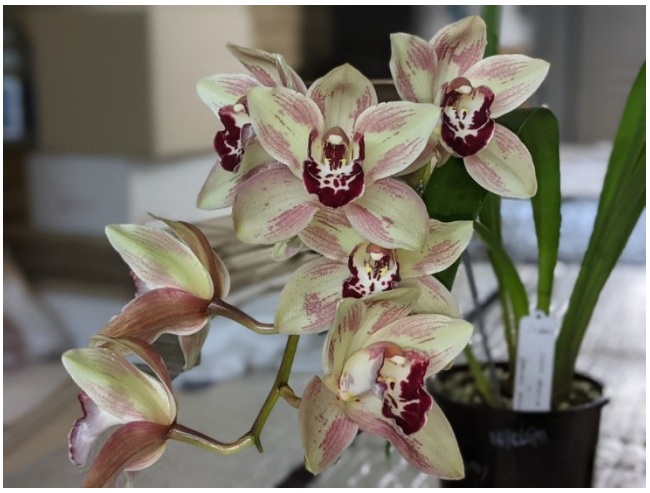


Memoria Amelia Earhart #3 was again used, this time with Daniel Thomas 'Green Savannah'.

Nado: *The Tesio cross has produced predominantly green arching and hanging basket intermediates. Some have eye-catching consistent brushing on all segments.*

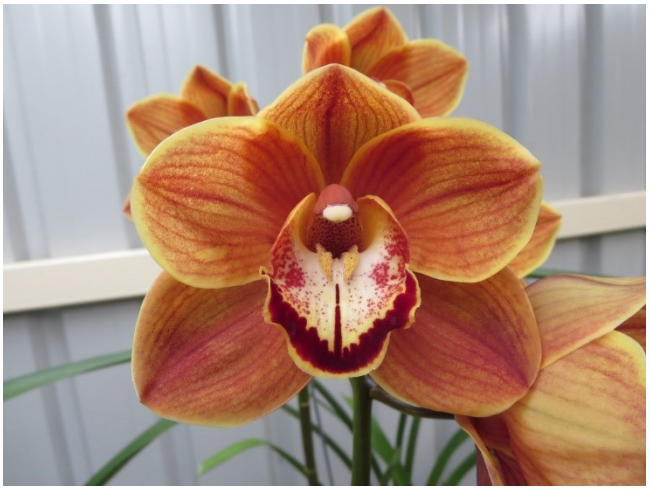






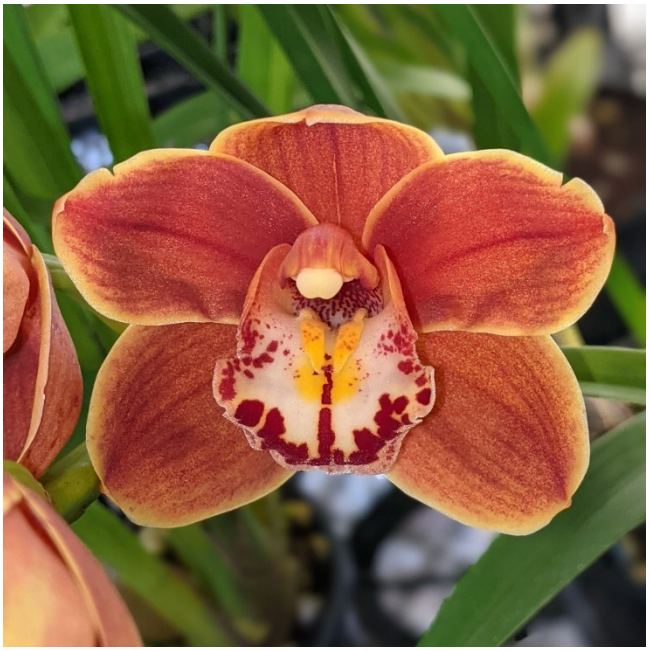
A selection of seedlings from the Tesio cross.

Cym. Splendid (Sarah Jean X Hazel Fay)

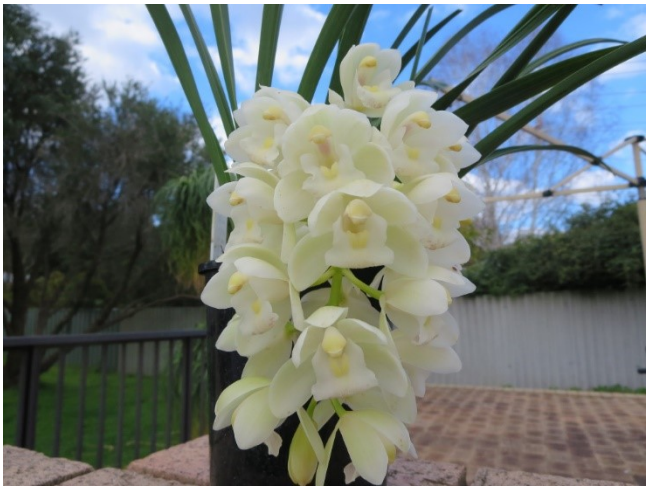
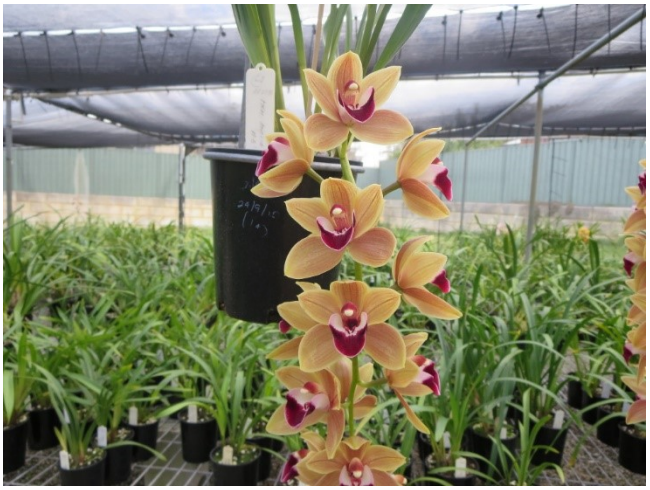


Nado has one of the few red Sarah Jean selections – Sarah Jean 'Surprise' (4n), which he has used in several crosses. Splendid was made using Hazel Fay 'Orange Squash'.

***Nado:** The miniature Splendid cross has been a real winner with great diversity that has been appreciated by the orchid buying public. It has justified my confidence in Sarah Jean 'Surprise' as a parent.*



Cym. Princess (Sarah Jean X Memoria Amelia Earhart)

Nado used the 4n form of Sarah Jean 'Ice Cascade' with another of his Memoria Amelia Earhart selections (#6).

***Nado:** I have flowered only about 7 of the Princess cross – with nearly all blooming from only their second bulb. The first to bloom produced 51 flowers from two racemes! All have been miniature in growth and are naturally pendulous. Like the Michael cross, it also highlights the value of using the tetraploid Mem. Amelia Earharts as parents.*

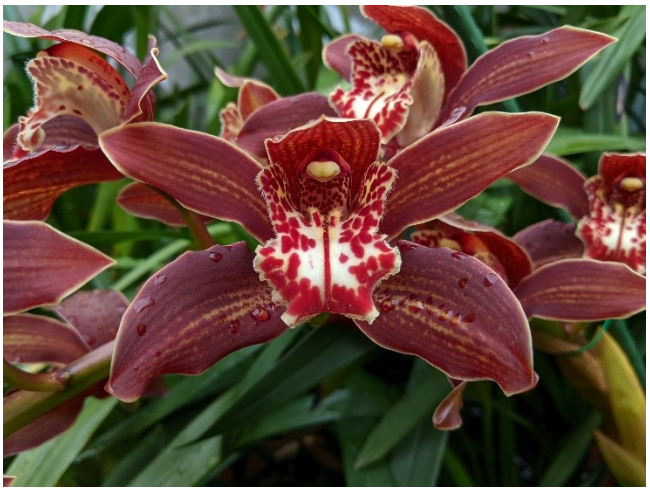

Two different seedlings from the grex, highlighting the variability in shape, colour and markings.

Flower Patterns

I thought I would continue the series of articles on hybridising by looking at the various patterns exhibited in Cymbidium flowers. Some of these are traits that exist in nature and are easily brought to the surface (or suppressed) by the appropriate selection of parents, whilst others are the result of mutations (typically during cloning).

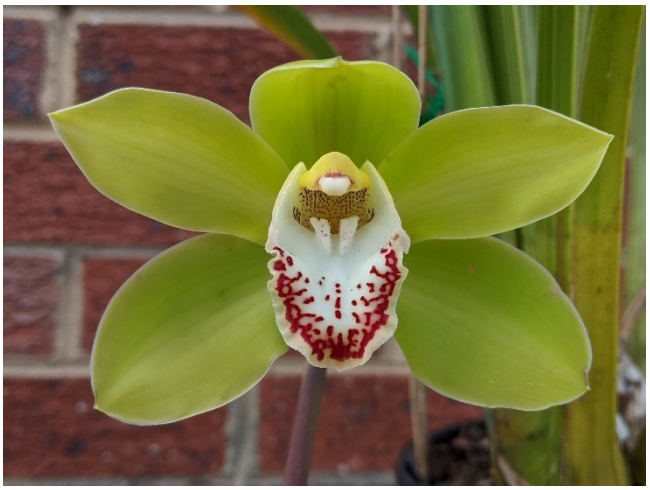
Stripes and Spots

The most common type of pattern found in Cymbidiums are stripes and/or spots. These markings are present in several species, with *Cym. tracyanum* being the most well-known. Many of the earlier spotted and striped hybrids owe their markings to this species, although modern hybrids have moved away from it due to its limitations. Not all *tracyanum* hybrids appear spotted or striped, however, as in some crosses (particularly with strongly coloured partners) the spots/stripes mostly merge into a solid red, brown or russet overlay. For those keen on *tracyanum* (such as myself), the advice I have been given is to seek out F1 or F2 hybrids that improve upon the species whilst keeping the traits you like, such as That's Outrageous, Ken Siew or Gattonense (if you can find one!).



Cym. Pywacket 'Royale' exhibits an almost solid russet layer made of spots and stripes.

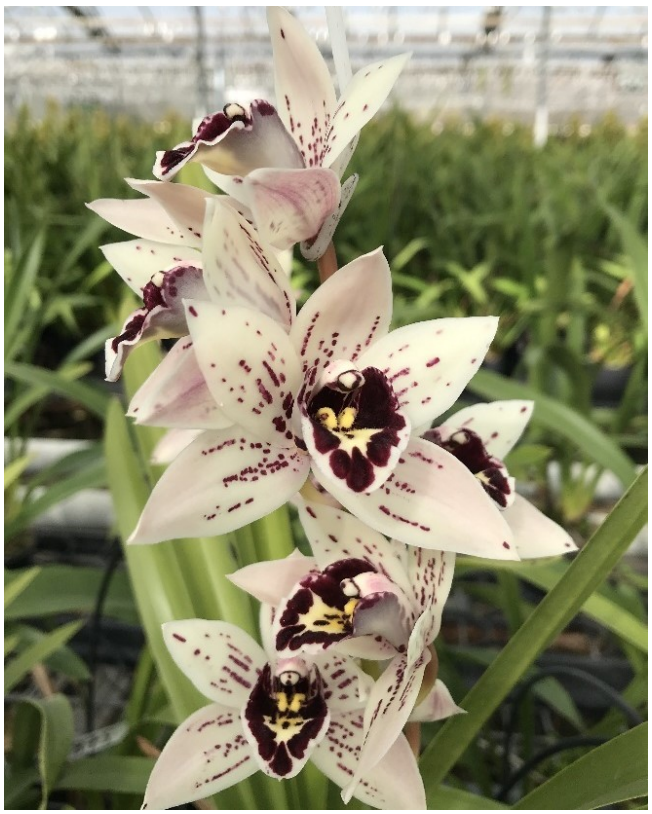
More recently *Cym. erythraeum* has been used in spotted lines to bring down the size. Some of these have been looked at in Issues 3d and 23. The species and its hybrids still have plenty to offer and are a worthwhile starting point for compact plants with spots and stripes.



Cym. Nicky 'Kuring-gai' AD/NSW owes much of its clean colour and low-arching spikes to Cym. hookerianum.

Cym. hookerianum is an interesting case. Some plants, originally considered a separate variety (var. *punctatum*), exhibit fine spotting around the base of the sepals and petals, whilst others are a clean green. The species can be used to produce clean colours, such as in the case of Lowio-grandiflorum (where *lowianum*'s bronze overlay is suppressed) or Zaleskianum (where *iridioides'* markings are suppressed), or reduce spots and stripes as in Rosefieldense. However, it can also produce spotting, such as God Only Knows (X *floribundum*), Hooked on Classics (X *erythrostylum*) or Cliff Hutchings and progeny.

Cym. Hector Grey (Harriet Ishitani X Cliff Hutchings). Photo courtesy of Andy Easton.



Cym. Canal Parish 'New Horizon' 2n and Cym. (Canal Parish 'New Horizon' 2n X parishii var. sanderae *'Emma Menninger' 4n). Photos courtesy of Andy Easton.*

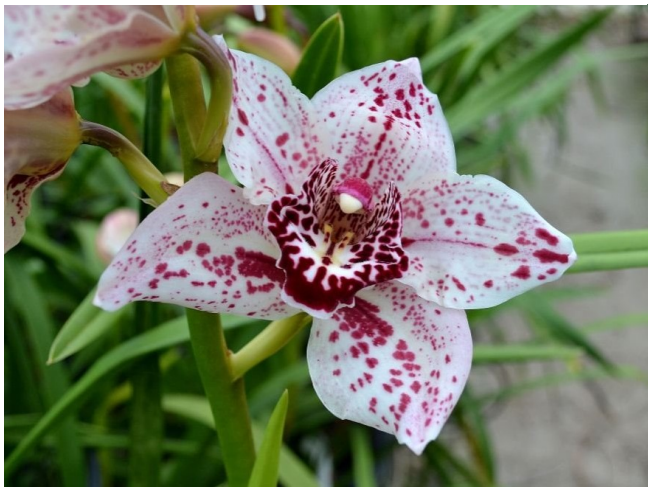
More recently, *Cym. canaliculatum* has been used to produce a variety of spotted and striped progeny. Spark Sprite and Canned Magic are perhaps the best-known *canaliculatum* hybrids in Australia; both have been remade several times, although neither have any registered offspring and I am aware of only one hybrid from Spark Sprite. Canned Magic can be quite striking, but unfortunately is typically a very slow grower (courtesy of Tethys), sometimes taking up to 8 years to flower.

Cym. Spark Sprite 'Top Spot' (Sarah Jean X canaliculatum)

Canal Parish, on the other hand, has been a key breeding plant for advancing the *canaliculatum* lines, producing some interesting hybrids including Joseph Schmidt, Viscount Nigel, Fritz Wunderlich and Llewellyn Kouba (unfortunately only made as a triploid and so likely a breeding dead-end). Several Joseph Schmidt crosses have been offered in Australia, including the Viscount Nigel (all alba carriers). Anyone interested in furthering *canaliculatum* lines should try to seek out some of these hybrids.

Cym. Canned Magic (Tethys X canaliculatum)

Cym. Magic Devon 'Maisie' (4n) (Devon Caress X Tethys). Photo courtesy of Andy Easton.



A pale U Swe Myint seedling. Photo courtesy of Andy Easton.

An unnamed seedling with U Swe Myint as a parent. Photo courtesy of Andy Easton.

Cym. devonianum, often used for miniatures and intermediates, is probably not the first species that comes to mind when thinking of spotted Cyms. However, it can produce fine speckling or spots in its progeny, especially when coupled with other parents that have spots in their background. Hybrid lines include Pied Piper (X *canaliculatum*), Cliff Hutchings (X Lowio-grandiflorum) and its progeny, Horizon Flight (which has *devonianum* on both sides) and Magic Devon 'Maisie' (a vast improvement on the problematic Tethys). Devon Elf and Nicholas Winton, whilst not exhibiting lots of spots, are also expected to breed them.

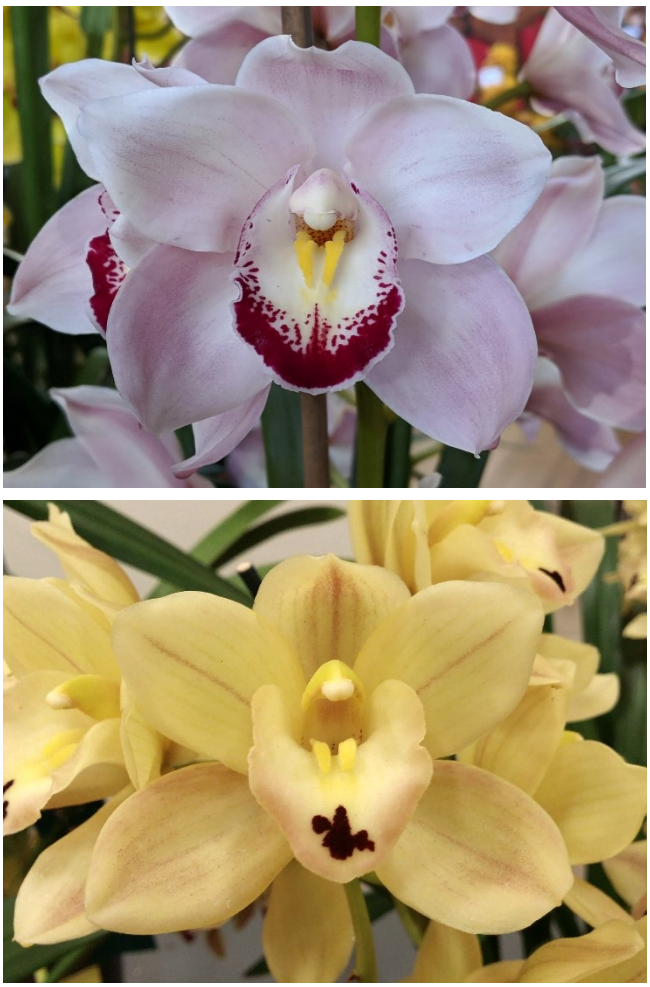
Speaking of Tethys, some spotted hybrid lines, including Tethys and quite a few of its progeny (e.g., Splatters and Piñata), suffer from a lack of vigour. Crosses involving these lines should be considered carefully and offspring selected appropriately with this in mind. Preferably, more vigorous intermediates such as Betty Watt or U Swe Myint should be used (and for those valuing shape, they are also an improvement upon Tethys 'Black Magic' in that regard too). Seedlings from several Betty Watt and U Swe Myint crosses have been made available in Australia, so would be an excellent option for pursuing these lines.

Finally, Kirby Lesh is not to be forgotten for its ability to produce spotted progeny as well, despite its age. In the U.S. the clone 'Spots' (aka 'Cinnabar') has been used by Andy Easton to produce a number of spotted progeny and the cross with Betty Watt 'Anh' was made available in Australia back in 2019. At least a few spotted Kirby Lesh selections have been flowered here in Australia ('Frances' and 'Glenda'), although they are not widely distributed.

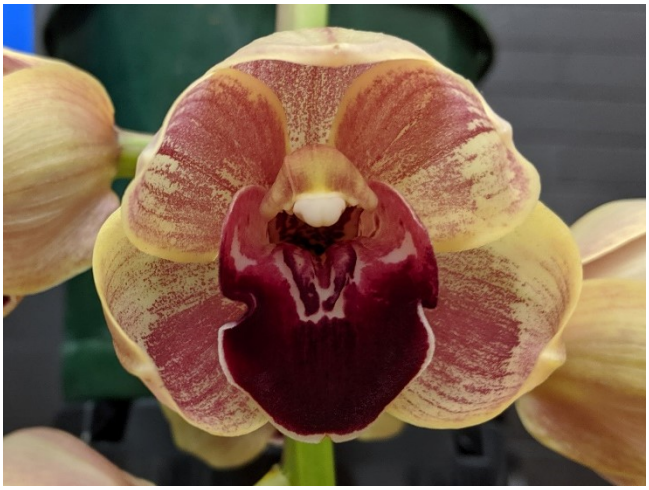
Splashes and Brushmarks

Colour splashes and brushmarks are not something seen at a species level, but they do appear in various hybrids. It is not clear where all the genetics for these traits come from, although I previously postulated in the article on *Cym. erythrostylum* that it (when combined with *hookerianum*) may be a source for pale brushmarks on the sepals like those exhibited by Solana Beach 'St. Francis'. However, most splash or brushmark patterns have emerged in more complicated hybrid lines.

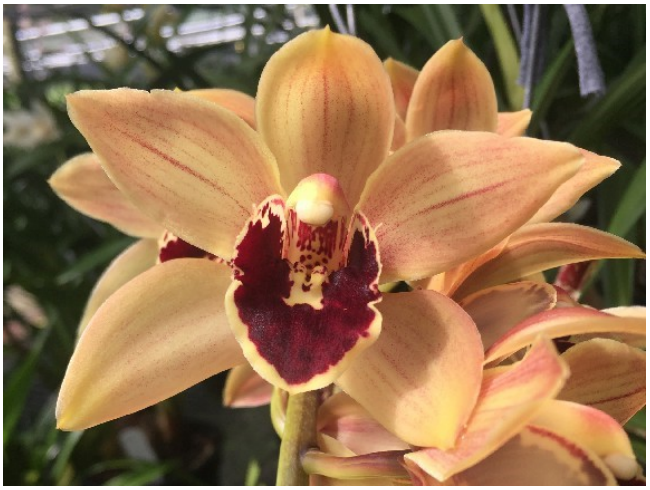
Hazel Tyers 'Santa Maria' (aka 'Tinsel') is understood to carry the genetics for splashing and brushmarks, which appear in many of its offspring including Bing Santa, Louie's Pride and Sims Vision. These are often not particularly strong brushmarks, as illustrated by the photos shown right. A significant percentage of Hazel Tyers' descendants via Memoria Amelia Earhart also produce brushmarks, with some of them being quite intense.



Top: Cym. Bing Santa 'Tee Pee'
Bottom: Cym. Louie's Pride 'Noel's Joy'



A still-opening bloom on Cym. Last Flight.



A brushmarked Cym. Amelian Key. This grex has been quite varied. Photo courtesy of Andy Easton.

Wallacia (particularly 'Burnt Gold' in both its 2n and 4n iterations) has been used to produce progeny with splashes, predominantly in yellow-orange-red colour combinations. Hazel Dawn 'Bengal' is one of the most striking of its immediate progeny and still exhibited in Victoria.

Cym. Hazel Dawn 'Bengal'
(Hazel Fay X Wallacia)

Cym. Sunrise Fire 'Art'
(Fiery Queen X Wallacia)

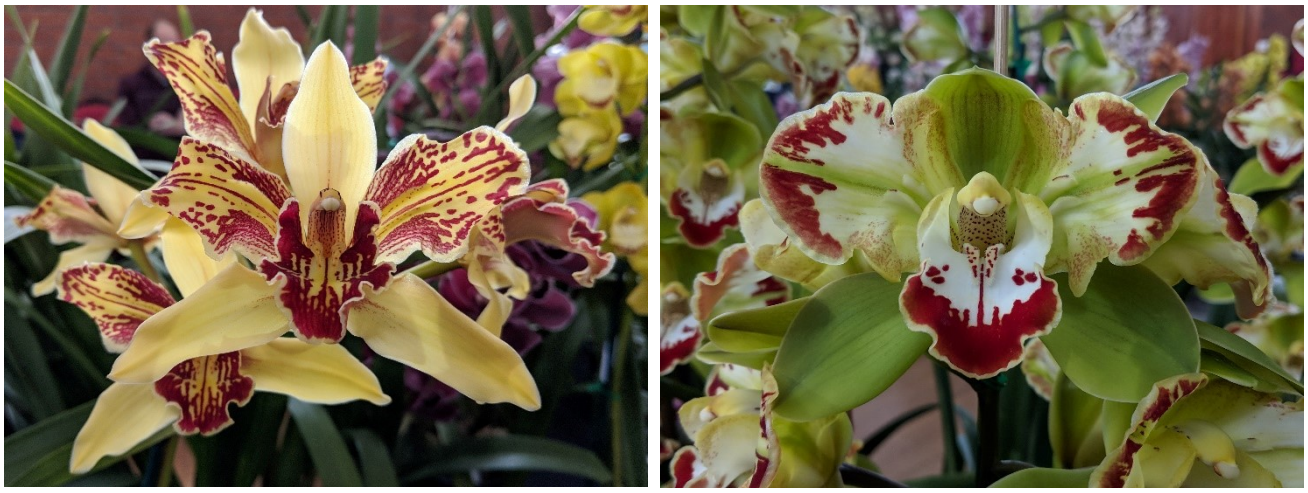
Valley Splash has been another key line for splash patterns. Again, Hazel Tyers 'Santa Maria' is involved, being one of the two parents of Valley Splash 'Awesome'. The most popular of its progeny has been Kimberley Splash 'Tee Pee', which is regularly exhibited and has been cloned. To date, there are nine hybrids registered from Kimberley Splash, all with it as the pollen parent.

Cym. Kimberley Splash 'Tee Pee'

Pelorism

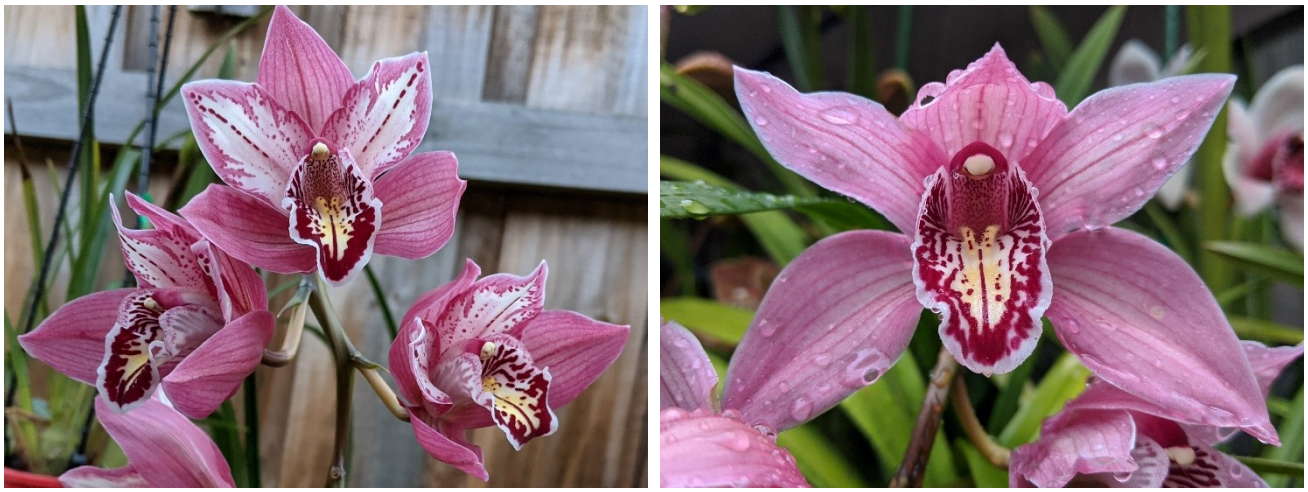
Orchid blooms are normally zygomorphic; that is, if you take a bloom, you can only split it one way to get two mirror-image halves. A mutation in the gene(s) controlling flower symmetry can produce peloric (or partially peloric) blooms, though, where the patterns and colours on the labellum (lip) are repeated elsewhere on the flower. Strictly speaking, a true peloric Cymbidium would have three lips, three sepals and no petals (something that is rarely seen), making it actinomorphic (where the flower could be divided into three identical radial sections). However, the term has wider usage and encompasses two types of mutations:

- Petal pelorics – the petals exhibit some or all of the lip markings (sometimes including the callus ridges)
- Ventral pelorics – the ventral sepals (normally the lower half) exhibit some of the lip markings



Cym. Butterfly 'Dillabirra' AD/NSW (left) and Cym. Vidar 'Harlequin' AD/AOC, BM/CSA (right) are examples of petal pelorics where the lip is replicated almost in its entirety, including the callus ridges.

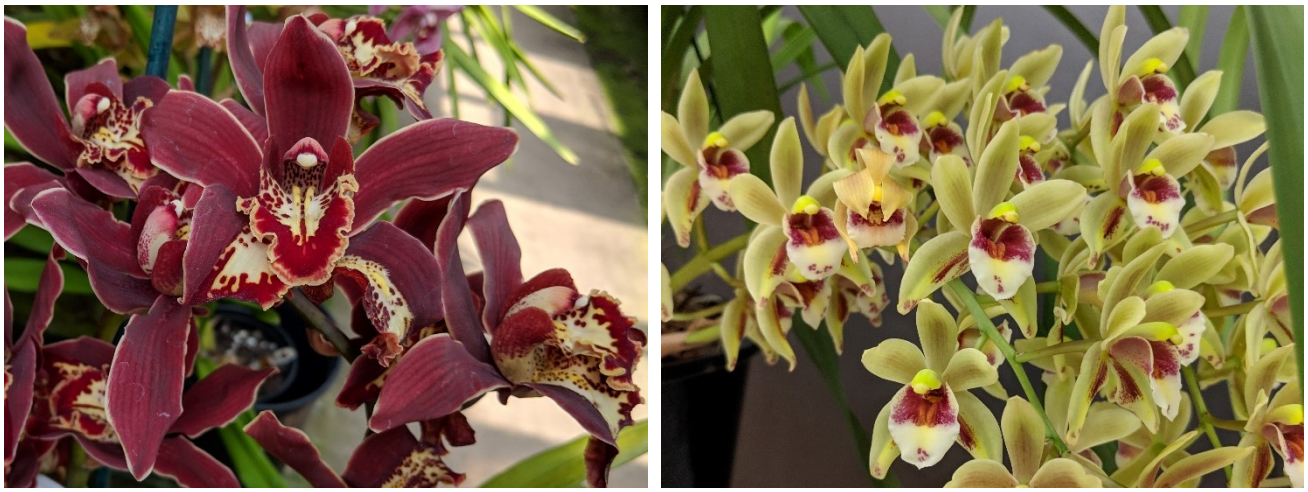
The mutations that produce these patterns are often unstable and susceptible to environmental conditions. Even relatively stable peloric Cyms, such as Terama 'Atlantis', occasionally revert to normal.



Cym. Terama 'Atlantis' with and without partial petal peloria.

This genetic instability extends to cloning and breeding, although significant strides have been made with stabilising the ventral peloric trait. Kevin Butler (Ezi-Gro Orchids), Nado Lenkic (Springfield

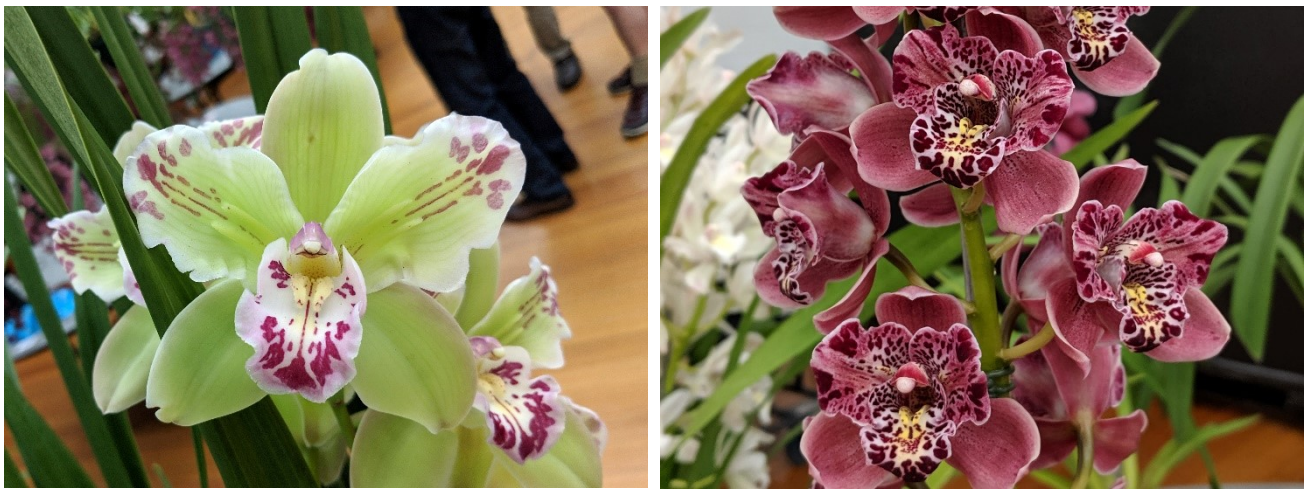
Orchids) and even Andy Easton (New Horizon Orchids) have all worked with ventral pelorics and have previously offered seedlings from crosses intended to produce a percentage of ventral pelorics. Cleo's Melody 'Freakout' gave rise to Son of Freak, which went on to produce several ventral peloric offspring, including Ison's Wild Thing and Neal Tadlock. Petal pelorics, however, do not appear to pass the trait on, despite many being fertile.



Cym. Ison's Wild Thing 'Voodoo Love' and Eye of the Tiger 'Peloric' are ventral pelorics.

Most spontaneous pelorics seem to be the result of mutations during the cloning process (much like feathering, mention elsewhere in this article), although occasionally some do occur naturally. Both Terama 'Atlantis' and Terama 'Peloric' are examples of the latter, where Julian Coker bought a number of seedlings and flowered two pelorics out of a sea of normal ones.

It is worth noting that some species and hybrids tend to favour different markings on the petals as opposed to the sepals. *Cym. canaliculatum* is an excellent example of this, as some selected forms of the species have solid colour sepals and spotted petals. Hybrids from *Cym. tracyanum* and related species (e.g., *Cym. erythraeum*) can sometimes show this as well, with the sepals exhibiting stronger markings than the petals.



Cym. Mavourneen 'Jester' (left) and Cym. Strathdon 'Cooksbridge Fantasy' (right) are another two petal pelorics seen in Australia. 'Cooksbridge Fantasy' is quite popular and regularly seen. It also appears to clone.

Pelorics are often quite divisive and people either love them or hate them. There is clearly a market for this type of Cymbidium, though, so we will continue to see them into the future.

Feathered

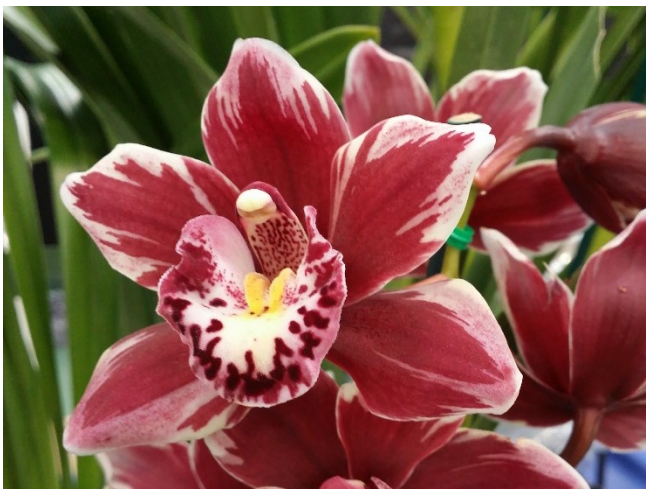
Feathering is the result of a mutation that causes pigment to be absent or reduced in the centre of the tepals, radiating out towards the ends, often along the veining. The shape and edges of the pigment-reduced patches often resembles that of a feather – hence the name.

Cym. Valley Champion 'Superstar'

This pattern almost always results from mutations during the cloning process, although not exclusively (feathered seedlings have been shown in Issues 21 and 32). Feathered Cyms that arise from clonal mutations cannot be consistently cloned, either; typically, they will revert in appearance to that of the original plant but will have accumulated further mutations and are unlikely to perform as well as the original. A good example of this is Drouin Masterpiece 'Renae', which produced the feathered 'Kaleidoscope' during the cloning process. David Wain reported cloning 'Kaleidoscope' to see if it would come true and all the clones reverted in appearance to 'Renae'. This inability to clone them makes feathered Cyms often quite pricey, typically fetching anywhere from $150 to $600 on eBay here in Australia.

The cause of the feathering mutation itself is unclear and it is thought that some plants are more prone to mutate during cloning than others. Valley Champion 'Superstar' is a feathered mutation of Valley Champion 'Prolific' and arose from a small clonal run of 300 clones. Feathered mutations of Valley Olympic 'Pink Perfection' and 'Rose' also exist (and again these arose during cloning), as well as two distinct feathered selections of Winter Fire – 'Frosty Tips' and 'Splash'. Cym. Rothesay seems to be particularly unstable, having produced both feathered and petal peloric mutations (the peloric 'Butterfly' being the most common here in Victoria).

For anyone seeking to produce feathered seedlings, my suggestion would be to try to obtain an existing feathered Cym (particularly ones that are known to produce feathered offspring, such as Winter Fire), or tend to produce feathered plants during cloning. As there are so few feathered seedlings in existence, this is largely unexplored territory and I don't think anyone knows what the results would be from crossing feathered seedlings, or whether the trait could be stabilised like the ventral peloric trait has been.



Cym. Winter Fire 'Splash'

Errata

Recently John Gate contacted me to alert me to an error in Issue 16 (3 August 2020). The plant of Khan Fury pictured on page 2 of that issue is actually 'Nerolie' (not from a remake of the grex), which John sourced from Gordon Giles. He later used it in hybridising and has distributed divisions and backbulbs of the plant, although has never had it cloned. The copy of Issue 16 available from the COSV website has now been updated to include this correction.

Acknowledgements and Contributions

I hope you have enjoyed this issue. If you have any feedback or would like to contribute (whether it be just one or two photos, an idea for an article, or to volunteer for an interview), please get in touch! I can be reached at jwhite88@gmail.com.

Previous issues are available at https://www.cosv.com.au/publications-and-resources. Thanks to all those who have contributed to this issue, including Greg Bryant, Andy Easton and Nado Lenkic.

The next issue is planned for December 2021.