Cymbidium Chatter'

Edition 17 - August 10 2020



Cymbidium Green Connie 'Bianca Photograph: Greg Bryant

Welcome to this edition of Cymbidium Chatter. For Victorians we are in the first week of a six week Stage 4 lockdown. As I write this edition it would appear that the numbers are beginning to stabilise, sadly however the death toll continues to rise as a result of this insidious virus. Take care everyone, enjoy your flowers and above all else, please stay safe!

In this edition Joshua White has a further instalment in his series on virus. Joshua is meticulous in his research and has made minor corrections to the previously published series. Thanks again for your invaluable input Joshua I know that everyone appreciates your efforts.

On the matter of corrections, I made a mistake in the previous edition of CC in stating that the Pywacket x tracyanum cross had not been registered. Thank you to those folk who contacted me to let me know that Royale Orchids,NSW, had registered the cross. In my rush to get that edition of CC completed I failed to check the cross both ways. Had I done so I would have discovered the grex Chocolate Honeycomb. In the article Bryan Nitz wondered about the name of his plant. I am not sure whether he was referring to the registered name or the name of one of the parents, Pywacket. I assumed that he was asking about the origins of the name Pywacket. Thankfully the lady who registered the name Pywacket receives CC on a weekly basis and she has provided us with a response. Weegie Caughlan is based in California, USA, and she registered the name Pywacket in 1996. Weegie responded:

To answer the question on Pywacket as a registration. Around 1989-90 I fell heir to a compot of this cross from a fellow orchid club member who was moving out of the area. When the cross started blooming, I asked to name it. I did some research to find the hybridizer and studied the flowers. As primarily a grower of exhibition Standard Cyms, I found the flowers on this cross "witchy" but alluring as only a feline can be. Kim Novak's Siamese cat, her familiar as a witch in "Bell, Book and Candle", came to mind. It was spelled "Pywacket" as I spelled it. However, if you check out Wikipedia as a familiar to a witch, it is spelled "Pyewacket". In any case it just seemed to fit and Easton gave me the OK. Bob Harris has kidded me for the perceived misspelling ever since!

Thanks Weegie for your quick response, it's great to have readers scattered all over the world, your input is greatly appreciated!

Cymbidium Chatter is sent to all members of COSV, thanks to Karen Gillespie for forwarding it on each week. I also have an ever increasing number of readers from interstate and overseas, so hopefully we will be able to ensure that Cymbidiums remain as the number one orchid genus, please keep the photographs coming and I also welcome any articles that you care to write.

All contributions to: grb17@bigpond.com

— Orchid Viruses —

By Joshua White

Part 5: Updates and Corrections

Since the publication of the initial four-part article series, I have received feedback and commentary on it, both directly and second-hand, which has prompted me to revisit the research on CymMV and ORSV. As a result, I have written this addendum in order to correct and clarify a few statements in my article series. I have also conducted further virus testing and received some interesting results which I thought were worth sharing.

Multiple Infections

One aspect I neglected to mention is that it is quite possible for an orchid to be host to more than one virus. Pearson & Cole (1986) infected plants with both CymMV and ORSV during their study, whilst a recent set of virus test results showed one of my plants to be infected with both OFV and ORSV (shown below). I suspect (and this is my guess only) that the presence of more than one virus would result in a terminal decline of the plant. Symptoms may match those of the individual viruses, or they may differ due to the combined effects of the viruses.



Corrections and Clarifications CymMV

During my re-reading of papers on CymMV and ORSV, I realised that I had missed a key finding regarding the spread of CymMV from Pearson & Cole's 1986 study. Originally I stated (in Parts 2 and 3) that CymMV becomes systemic within a matter of weeks. This is true for *some* orchid genera (such as Dendrobiums, which were the subject of Hu's 1994 study), but it is not consistently the case for Cymbidiums. One study found that the majority of infections were detectable after four weeks (Allen 2010), but another found that it took somewhere between 2 and 9 months to become systemic (Pearson & Cole 1986). Worse yet is a footnote in Allen's study that cites another study showing that for Cattleya Alliance plants, symptoms may not develop for 30 months (2 and a half years)! Given this information, I would recommend that any plants suspected of being exposed to CymMV are tested both after a couple of months and again 9-12 months later and I apologise for my error on this point.

I was also able to find a reference to the time that CymMV survives outside a host – about 7 to 10 days. The ease of infection varies wildly with genus, too; only 20% of Cymbidiums exposed to it in Pearson & Cole's study were infected, whilst almost all Dendrobiums in Hu's study were infected.

ORSV

Some comments on ORSV prompted me to look into its relationship to Tobacco Mosaic (TMV) and the following information may be of interest to readers.

ORSV is sometimes referred to as the TMV orchid strain and is effectively indistinguishable from TMV under electron microscopy (Paul et al. 1965), but has significant genetic differences to TMV. It was first identified in 1951 and is thought to be the result of a recombination of *Brassica* and *Solanaceae* tobamoviruses in the distant past which has since mutated (Gibbs 1999). Whilst it predominantly infects orchids, it can also infect members of the *Nicotiana* genus (tobacco plants, part of the *Solanaceae* family) and becomes systemic in at least *N. clevelandii* (but not *N. tobacum*). It is also known to systemically infect *Zinnia* plants (Inouye 1966) with the only symptoms being colour breaking in the flowers.

Given its ability to infect non-orchid hosts (particularly the tobacco genus), I would recommend that caution be exercised when dealing with tobacco plants or any tobacco products. Remember that ORSV has significant stability and can last years outside a host, so if you come into contact with contaminated tobacco, it would be easy to infect your orchids.

References

Gibbs, A., 1999. *Evolution and origins of tobamoviruses*. Philosophical transactions of the Royal Society of London. Series B, Biological sciences, 354(1383), pp.593–602. Available at: https://royalsocietypublishing.org/doi/10.1098/rstb.1999.0411.

Paul, H.L. et al., 1965. Untersuchungen am Odontoglossum ringspot Virus, einem Verwandten des Tabakmosaik-Virus: I. Physikalische, chemische, serologische und symptomatologische Befunde (Studies on the Odontoglossum ringspot virus, a relative of the tobacco mosaic virus: I. Physical, chemical, serological and symptomatological findings). Zeitschrift für Vererbungslehre, 97(2), pp.186–203. Available at: https://doi.org/10.1007/BF00897495.

Copyright © 2020 Joshua White. Please contact the author at jwhite88@gmail.com for reuse (i.e. in a newsletter or other publication) or modification. This article may be freely distributed in its original, unedited form.



Cymbidium Coraki Glowing 'Kentlyn'

Grand Champion of the Orchid Club of South Australia Winter show.

Grown by John Moon

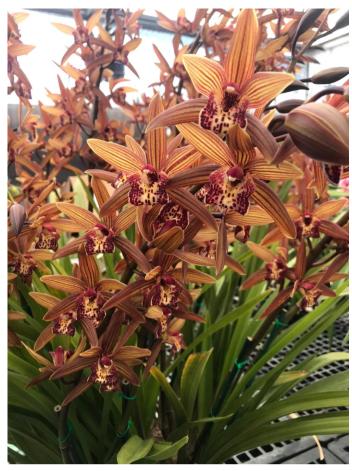
Photograph: 3 Amigos





Cymbidium Nut 'H & R'
Won Champion Specimen OCSA Winter Show
15 spikes

Photographs: 3 Amigos



I have included the photographs of Cymbidium Nut 'H&R' in this edition of Cymbidium Chatter because:

- it was Champion Specimen at the OCSA Winter Show
- 2) it is just one plant of different flower form that the 3 Amigos choose to grow.

Cymbidiums now come in many different flower forms and I believe the judges who chose this plant and flower form need to be congratulated! Maybe this beautifully grown specimen selected itself but the flower form is a major departure from our judging guidelines for what makes a quality flower. However I am of the strongest belief that diversity in flower form makes for a much more interesting hobby. The 3 Amigos mainly grow exhibition style flowers but I can still recall their stand at last year's Royal Adelaide Show, made up entirely of 'uglies' - the Death Wish style of flower. I should add that they also had some wonderful exhibition style flowers in other parts of the overall display.

Flower form??? Fragrance, nothing would come close to matching it, it's heavenly!



Cymbidium Warringah Winter 'National Show'



All photographs and comments from Greg Bryant

Left: Green Connie "Bianca". The Green Connie cross has been very successful for us. Some of the seedlings from this cross stained more than others. Many of the clean coloured ones from the cross have been outstanding.



We also made the Barry Baker cross using a different Flaming Vulcan cultivar. This is our Barry Baker "Miley" - very round and bigger than it appears. It is very bright pink



Above: First flowering - almost black in certain light conditions. (Smiling Pepper x Flaming Vulcan) "Mars" x Street Tango "Desire"

Right: First time flowering. (Dream Temple x Trinity Gold) 'Xanthe' x Harbour City 'Verity'



Bryants Orchids





Above: Wonder Island 'Geebee'

Right: Foxfire Generation "Green & Gold". From a cross we did some time ago.

Below: First flowering. Fresh Charisma "Freshen" x Loch Watten "Saintly"

The alba genes from one parent have been suppressed, resulting in a splash in the tepals.





Bryants Orchids

Seedlings from Greg Bryant's outstanding hybridising program are available from Pauline's Orchid Laboratories, South Australia. Greg produces quality seedlings, Pauline produces quality flasks!

Current offerings are available at: .https://www.bryantsorchids.com/

NB: In next week's edition of Cymbidium Chatter I will be writing an article on "What it is that hobby growers are looking for in the Cymbidiums they choose to grow!" - your ideas prior to my writing this article would be greatly appreciated. I will be putting on my judge's hat but also looking at it through my own eyes!