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Message from the Group Facilitator: Allan Watson

Well who would have thought that from small beginnings that Miltoniopsis would become popular again?

Over the last couple of months I have been lucky enough to have been invited to a number of societies to talk about the Rebirth of Miltoniopsis. I must say I while the invites were unexpected the interest at these meetings has been humbling to say the least and I thank those who have opened their homes and hosted me where an over-night stay was required.

The first seed pods have been harvested and are at the lab being processed so it now becomes another wait and see. Fingers are crossed for the next 150 days.

I have also been asked to participate in a Fertilizer trial and a Fern Fibre substrate trial. As both these trials progress I will report on my observations via this newsletter and the products websites. This newsletter has a report on the Fertilizer trial to date.

Getting information to maintain a quality newsletter is not always easy and if left to a few their energy is soon put to the test. PLEASE have a say, make a comment, even if it's only a question, send a photo sharing your experiences helps us all learn.

Allan W

Editor's Ramble.

To divide or not to divide, that is the question.

When it comes round to repotting, this is always the question that comes to mind. In some cases it is easy to answer where the plant is not doing too well or the centre has died out. In these cases, division is the answer to try and get these plants back to peak condition. But for those plants that are growing well and producing a number of new growths, it is not so easy. You need to decide what you want out of your plants. If it is to have stock for sale, then division is the way to go, but if you are looking for a showy plant that will be a show stopper, then growing it into a specimen plant may be the way to go. When looking through OrchidWiz it is noticeable that the number of multi spiking Miltoniopsis gaining quality awards is very similar to the number of single spiking plants. The multi spiking plants, besides putting on a great show, also seem to have a better flower count than the single spiking plants. So, if you want the spectacular, then give the specimen plant idea a go

Alan

Question time

I have had a number of questions about the leaf concertinaing in Miltoniopsis. The answer is not that straight forward as some people experience a lot of it while others, using similar growing conditions, don't see much of it at all. It is a problem that occurs to a number of genera within the Oncidium Alliance but Miltoniopsis are probably the worst for it.

I asked Thomas Brown, who worked with Miltoniopsis in the Eric Young Orchid Foundation on the Isle of Jersey, for his views on this problem and are printed below.

Thomas Brown

Basically it is due to irregular watering. What they don't like in the growing period is drying out. When that happens the growth cells become stunted which causes this concertinaing. At the EYOF we were watering three times a week with 500 parts per million of feed every single watering so we never got to this stage. It sometimes happens that a plant might get missed and then you may see the odd case of concertinaing but it is very unusual to see it if you are watering regularly.

He went on to say

While Miltoniopsis are not the fastest growing or the most hungry orchid they like to be kept regularly feed and watered through out the growing season. Through the Winter they like to be kept at temperature of not less than 16 degrees c. if that is possible and probably watered about once a week at those temperatures. At the other end of the scale they don't like to go much over 23 degrees c. and that can be a bit of a problem in our New Zealand conditions so a good fan blasting over the top of them and a bit of water misting over them should help to keep the temperature down.

I have a different method of achieving this. My growing area 6 m x 7 m fully enclosed. There are no opening vents, instead I have 2 x 15 inch high speed fans salvaged off commercial refrigeration units (\$10 each) These are mounted as extractor fans high up in the apex of the roof. The air is drawn through the open door at the other end and through the plants. This keeps the temperature at plant level in the mid 20's and the upper air at the high 20's. If on extremely hot days the temperature starts to climb then misting will bring it down.....Alan

Change: A word orchid growers sometimes find hard to swallow.

Change is not always accepted as a user friendly word in the Orchid world. Sometimes to get our plants to move forward we have to; Remember what is done the same way will produce the same results.

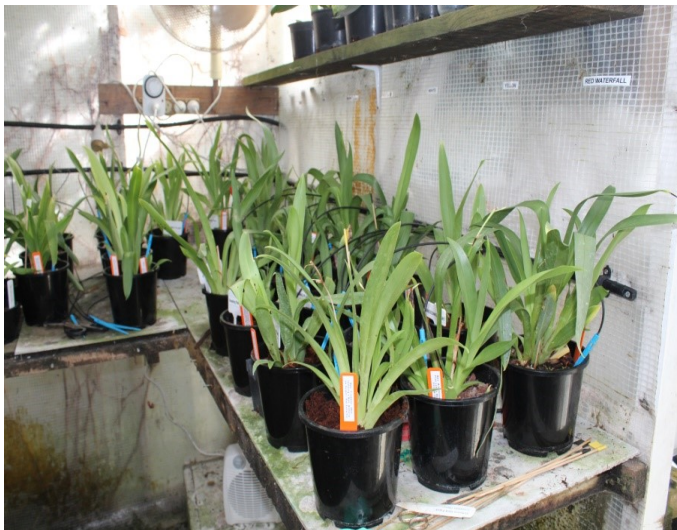
Some may simply shift the location of a pot. Some may get a little more adventurous and use a different fertilizer then the "Biggy": Change not only fertilizers but also the potting medium. The latter being what I decided to do.

The photo #1 below shows clear evidence of the value behind this change.

The plant on the left is in a mixture of #2 Pine Bark and Course Pumice whereas the plant on the right is in straight Fern Fibre substrate.



Both plants were re-potted at the same time. This result is only after 4 months.



As you can see the plant on the right has almost doubled in size compared to the one on the left and the leaf structure appears to be stronger and darker than the one on the left. Both plants are side by side in the green house and receive the same amount of water and fertilizer.

I have a further 15 other pairs being trialled the same way all are starting to show better results in the Fern Fibre substrate.

In addition to the 15 pairs in the trial I am now setting up a further 21 Mps in Fern Fibre substrate for next seasons breeding program.(Photo #2)

I need to thank [Alan Ford](#) of Fernwood NZ for his support. If you go to this link you will find comment from other orchid growers re Fern Fibre substrate. <https://www.fernwoodnz.com/news/>

Allan Watson

I hope to get the next issue out in early September but that will largely depend on you, the reader.

I need your input—your views, comments, questions, photos and ideas. In particular, photos of Miltoniopsis in shows or awarded, also how you grow your plants.

Only by sharing can this publication survive.

I need your feedback to know whether what I am producing is what you want and how you think it can be improved—as I am sure it can be. Please let me know what you think.

Please send your contributions to me at lochaven999@gmail.com by or before mid August

Using Miltoniopsis to create Intergeneric Hybrids by Andy Easton

As I also write for the International Odontoglossum Alliance Journal, I have used up several Miltoniopsis hybrids for their next edition thus I've had to scratch a bit so hope you don't think the five plants I write about are too far removed from Miltoniopsis. A little bit of history.... As far as I'm aware, the only hybrid between Brazilian Miltonias and the group we now call Miltoniopsis was the Gordon Hoyt hybrid: Norma MacRae (Milt. regnellii X Mps Bellingham. I know the plant well and there are several plants of it at Colomborquideas. You should be aware of Gordon Hoyt because he lived in Washington state and really made some wonderful Mps hybrids. I never met him as he died before I went to live in Oregon but his wife Dolores continued with the business for a short time and she was a lovely lady. I actually bought a wonderful cymbidium, Endre Ostbo 'Faith' AM/AOS from her as well as a number of Mps.

The taxidiots have decided that the Miltonias must be separated into Miltonia and Miltoniopsis so I am taking great pleasure in proving their closeness by using Odonts as intermediaries. We have a seedling cross between a Vuyls Nova hybrid and a Mps germinating at a Colombian Lab as I write. A number of similar crossings are about ready to harvest so they will help drive my point home further and hopefully upset the Kew wastrels! I don't know if Norma MacRae is fertile but we surely have several promising looking pods on it at present.

My first subject is the lovely unregistered hybrid between Odtna Colombia and Odm Charade. Not an alba which I imagine the hybridizer was seeking but a very lovely flower. Even at 25% Mps ancestry you see a lovely full lip. I have tried some crosses on this plant so here's hoping..... Its main weakness is a spike that usually carries only five blooms so we will use alba Odonts with it and maybe extend the inflorescence, produce some albas and not lose the stunning lip! All hybridizers tend to be super-optimists.....



Miltoniopsis in New Zealand



The second plant is a very consistent hybrid between Vuyls Cambria 'Plush' and Oda Charlesworthii 4n.

One of the faults with Cambria is that in warmer weather it tends to exhibit a more purplish coloration than red and this has caused Cambria to be dropped as a pot plant in Europe. This cross comes out red and stays red so it is already being marketed as the "red Cambria". I like any link to Cambria, a great grower and as we get royalties for the "red Cambrias" they

are very useful earners for New Horizon.

One thing that many people are unaware of is that the beautiful lip of Vuyls Cambria is much more due to *Odm. harryanum* influence than *Mps. vexillaria*! In the “red Cambria” the *Mps. vexillaria* is reduced to under 7% yet the lovely broad lip endures.

Vuyls Andy’s Idea ‘Ligia Posada’ AM/AOS is a very recent registration (Vuyls Cambria X *Odm. wyattianum*) and looks like a very strong Cambria except for a slightly more subdued colour. This is consistent with our experience of *wyattianum* hybrids. But the plant is one hell of a doer and the flower substance is notable. I have no idea as to its ploidy but it was pollinated on three flowers and all three are making fat pods. Maybe more importantly, there is minimal similarity with Vuyls Wyatt’s Torch, the parallel hybrid of Vuyls Cambria and *Odm. harryanum*. Sometimes lines of hybridizing development provide questions rather than answers. But this particular scenario is particularly intriguing!



Vuyls Mem. Mary Kavanaugh has an interesting backstory. I was at McLellans one day and in the sale’s area were a group of *Miltonia spectabilis* var *moreliana* clones. One was a hummer and when I looked at the label, it had “+ colch.” on the reverse. Obviously a tetraploid... I couldn’t get my \$12.50 out quickly enough! As it was just before our move to NZ in 1985, I could not put a pod on the plant so I called on my friend Tom Perlite at Golden Gate Orchids and made a deal with him to use the pollen onto a tetraploid *Odontioda* and share the flasks. He duly did share the flasks, there were only two and this Mem. MK ‘Viking’ was one of the best progeny. I started using the Mem. Mary Kavanaugh again in 2007 and the crossing with *Oda Charlesworthii* 4n has been quite stunning. This is a wonderful flower, long-lasting and a glowing colour. The cross is very fertile and we have a number

of seedling crosses going to the Lab from it. An additional quality is the warmth-tolerance that all *M. spectabilis* hybrids have, at least in the first couple of generations.

I apologize for the last flower as I wanted to take it when it was just opening and then again when the flower was a fortnight old and had become a sparkling white but I was overseas at an orchid show and I forgot to make the follow-up photo. The pod parent is Vuyls Nova the cross from *M. spectabilis alba* and Odm Samares. This is a triploid hybrid so Bob Hamilton also treated it with oryzalin and created some hexaploids. This particular seedling is Vuyls Nova X Oda(Odm Parade X George McMahon). I have no idea of its ploidy but it is making pods very easily. Of particular interest is that although it didn't hold any pods with Mps pollen, it has made three pods on tetraploid and diploid alba Mps Bleuana selections. Again, the goal here besides making wonderful alba white potted plants is to prove that using an Odont link, it is quite easy to incorporate *Miltonia* and *Miltoniopsis* genes in a hybrid!



Andy Easton

El Retiro, Colombia

May 9, 2019

On Mother's Day as I write this, I have one reason to feel grateful that my mother insisted I study Latin for three years at high school! My father less enthusiastically took her side, the traitor. Maybe they thought I'd become a doctor? Anyway, it has had its sole usefulness in assisting me with Botany. One knows immediately that variety 'leucoglossa' will have a white lip. When you look at this picture, be aware that you are looking at the best of its type. Others of the type that I've seen have been quite inferior. I selfed this plant and took the green pod back from Colombia to the USA for treatment with Oryzalin. Bob Hamilton did the treatment and because he was at the time very busy in his work at



Mps. vexillaria 'leucoglossa'

Berkeley, I gave the mother flasks to a well-known flasker in the Bay area. This woman is difficult, opinionated and a much poorer flasker than she thinks. About 18 months later I was presented with ten flasks full of 3" high plants, all dead! What the hell she had done I will never know and of course that ended our business relationship. I have not seen the plant lately at Colomborquideas so hopefully it is still extant.

While we are on the Mps. vexillaria jig, let me comment about a supposed variety of a white Mps that goes by a number of varietal names. In 2009 it was called Mps. vexillaria 'Lambeana', in 2014 it was called Mps. vexillaria 'Lambeaveana', and in 2015 it went by Mps. vexillaria 'Lambeaulanum'. In reality they are all incorrect for the plant is not a species but an alba or albanistic white hybrid! There was a famous orchidist in Belgium by the name of Firmin Lambeau. He lived at Villa Vogelsang and yes, any Cymbidium lover knows the name of his only hybrid in the genus, Vogelsang, which was registered in 1928. Now Mr. Lambeau had a thing about pure white flowers and is always remembered for the fabulous species C. warscewiczii 'Firmin Lambeau' FCC/RHS. I have a pretty good idea that he also used alba forms of Mps roezlii and Mps. vexillaria to make Mps Reine Elisabeth too. My suggestion is that plants from a selfing or maybe the original (unlikely) are what are masquerading as alba vexillarias today. And maybe someone can tell me why the taxidiots at Kew have not figured out that Mps Bleuana and Mps Reine Elisabeth are one and the same?? As the poster says: Common sense is quite Uncommon!"

Andy

Getting your Miltoniopsis ready for the next season.

I suspect that you will have your way which provides you with an end result as do I. Be it far from me suggesting my way is right I am merely providing my thoughts to start a conversation.

The purpose of this article is to develop ongoing discussion by sharing methods. That way in the late spring early summer we can share flowering results in similar manner.

I decided this year to apply a change not necessarily comfortable with the change but have taken it on as a challenge.

One of the reasons behind this change is the future hybridisation program and the National Spring Show in Palmerston North. Current practices for most hobbyists would have their Miltoniopsis flowering Mid October through till January. If the changes I have implemented work I should have some out in September in time for the show in Palmerston North.

You will note in an article on a fertilizer trial I adopted timeline water / feed programme rather than the conventional water / feed when it is thought the plants need it. I have also decided to introduce a "Bloom" fertilizer some two months earlier than I normally would in an effort to induce early spiking and subsequent flower production. In addition to this I also needed to prep some plants as breeding plants for the next hybridisation period. It was noted last season we started the breeding project well into the summer when conditions were dry with low humidity. I am of the opinion early hybridization when humidity is higher will provide an even better seed pod strike rate.

So with the above thought in the back of my mind I started to plan:

Water / Feed program in place and measured via a spread sheet. **In place.**

Repotting some into a fern fibre substrate to test increased performance and plant development. **Underway.**

Do I have sufficient number of plants to set some aside for breeding and some aside for the up and coming show? With a little tongue in cheek I said to myself **NO.**

Despite having some 100 Miltoniopsis I felt that I was around 20 light. The reason being influenced by proposed number of plants in the breeding program for 2019-20. **Looking for 21 breeding plants**

This photo shows **12** breeding plants set up in x3 colour specific rows ready to receive pollen. It is envisaged that a further **9** plants will be included once suitable stock becomes available.



While these plants have been set aside it will be a wait and see. In other words if their flower sync is out then they will be changed out with a similar colour.

So moving forward: looking for more stock. Will be taking greater note from the end of June to observe any spiking activity and keeping everything practical crossed to see if these changes work.

Have fun out there looking forward to seeing your comment in the next newsletter.

Footnote:

In this article I referred to plant numbers in my collection ie. having "100 plants and being 20 light." This should not be construed in anyway that these plant numbers are required if you want to engage in any breeding program. If you wish to try any breeding I would suggest a min of three plants that way you have one as the seed parent and two other opportunities for pollen generation.

My breeding program also covers the current range of forms that are currently available ie. Whites, Pinks, Waterfalls and Blushes etc.

Visitors who wish to see this collection (during daylight hours) are most welcome.

Allan Watson.

Summer Culture in Australia

Over the summer this year, it has been a stressful time for our orchids, so far. If you cannot give your miltonopsis a little care, then most likely they will go backwards. Just last weekend, Saturday temperatures were around 39degC, while Sunday was 22degC., and raining. At my place in the polyfilm shadehouse, with masdevillea, bulbos, my miltonopsis didn't have any negative effects. The mix that I use is sphagnum, with added jumbo perlite. I have a very fine misting system that comes on from 6am to 6pm every half hour for 30seconds, so the whole area has a buoyant atmosphere. I do get flowering about 3 times per year, each flowering lasts for about 5 weeks, when the flower just starts to deteriorate, they are removed straight away, to put the energy back into the bulbs. My benches are about 1/2mtr from the floor, which is made up of wood shavings, old washed orchid bark and stone, to help keep the humidity up. I have very good airflow as I don't have doors on the polyfilm shadehouse, with the fine misting and airflow I don't get pests or fungal problems. My orchids are fertilised weekly with a mixed selection.

Jeff Ahern

Update on Fertilizer Test Trial: After four months.

INTRO

I feel quite humble being asked to undertake a fertilizer test trial by *Bio Leaf Plant Nutrients Ltd.* I accepted the challenge and set up a program to monitor effectiveness.

It needs to be understood that this trial is about application and seeing which fertilizer provides added value. I know and accept that we all have our favourite fertilizers as do I so this trial is a test for me as well.

In saying what has been said above no doubt the end result appearing in the plant growth and subsequent flowering may tend to place one Fertilizer over the other.

Having two separate watering systems provided the basis of the trial. I decided to use two different fertilizers.

System one a gravity feed system from a domestic house supply tank via micro tubing and drip feeders to the roots of each plant.

System two a mains supply via a Ventura system and sprinkler heads.

The gravity feed system supplied fertilizer to some 130 plants *Miltoniopsis*, *Oncidiums*, and *Cymbidiums*, while the spray system covered *Masdevallia*, *Sarcocillus*, *Cymbidiums* and some other mixed Genera. Overall, 750 plants. (In addition to this trial a second trial of Fern Fibre v's Pine Bark and Pumice was also underway. This trial will be addressed separately)

As said earlier, while I accept everyone has their favourite fertilizer as do I, a change added to the challenge.



SETTING UP THE TRIAL:

There are a number of key steps required and I have tried to list them in order:

Define your system. In this case making sure and understanding the volume of water delivered to the plants.

Have the ability to generate realistic performance measures and record the same

Set up the Watering / Fert routine (every 3 days for example) In general this is outside normal thinking as plants should be watered when they need rather than by a time line.

Decide on the Fertilizer for each system.

Start and Monitor. Review results at least monthly to see if improvements are occurring.

We all know there will be other actions required the 5 listed above are in the view of the writer the key ones for the purpose of this article.

UNDERTAKING THE KEY TASKS:

Define your system. In this case making sure and understanding the volume of water delivered to the plants.

This can be done quite simply. In the case of both systems. The in pot system fill the supply tank then release the water into the micro system have one drip feeder removed from a plant feeding into a vessel. When the tank is empty check the volume of water in the vessel. This should be the amount each plant receives. Carryout the same exercise with the sprinkler system. only place the vessel under the sprinkler displacement area. This will provide an idea of watering time as well as volume delivered.

Have the ability to generate realistic performance measures and record the same

To achieve results in this area some investment may be required. You may consider purchase of a conductivity meter to measure Ph. and Temps of the solutions being applied. The required levels normally identified on the side of the Fert container. It is recommended in general terms that the start CF should be around **4** increasing to around **8** when it is expected the plants should bloom. Controlling this particular level will save you in overall fertilizer usage. If you have some computer knowledge set up a spreadsheet to record performance. (Happy to provide one for you)

Set up the Watering / Fertilizer routine (every 3 days for example)

I suspect most of us tend to, if it looks dry then water. I am finding that a regular water / Fert program provides positive results and if you have a spreadsheet program you can set the dates or timeline you intend to follow. *(Needed to accept moving away from my normal practice)*

Decide on the Fertilizer.

This trial involves two fertilizers due to the fact that two water systems are being used. (The trial could be undertaken with one fertilizer but I wanted to be a bit different.) Some recommend a high nitrogen based one others recommend a potassium base product. YOUR call I am using the latter in this trial. Whatever you decide to use you need to stick to for the trial period. Some fertilizer's will have a grow formula and a bloom fertilizer you can switch provided you re check the basic measurements at the time of change. For example retest baseline CF.

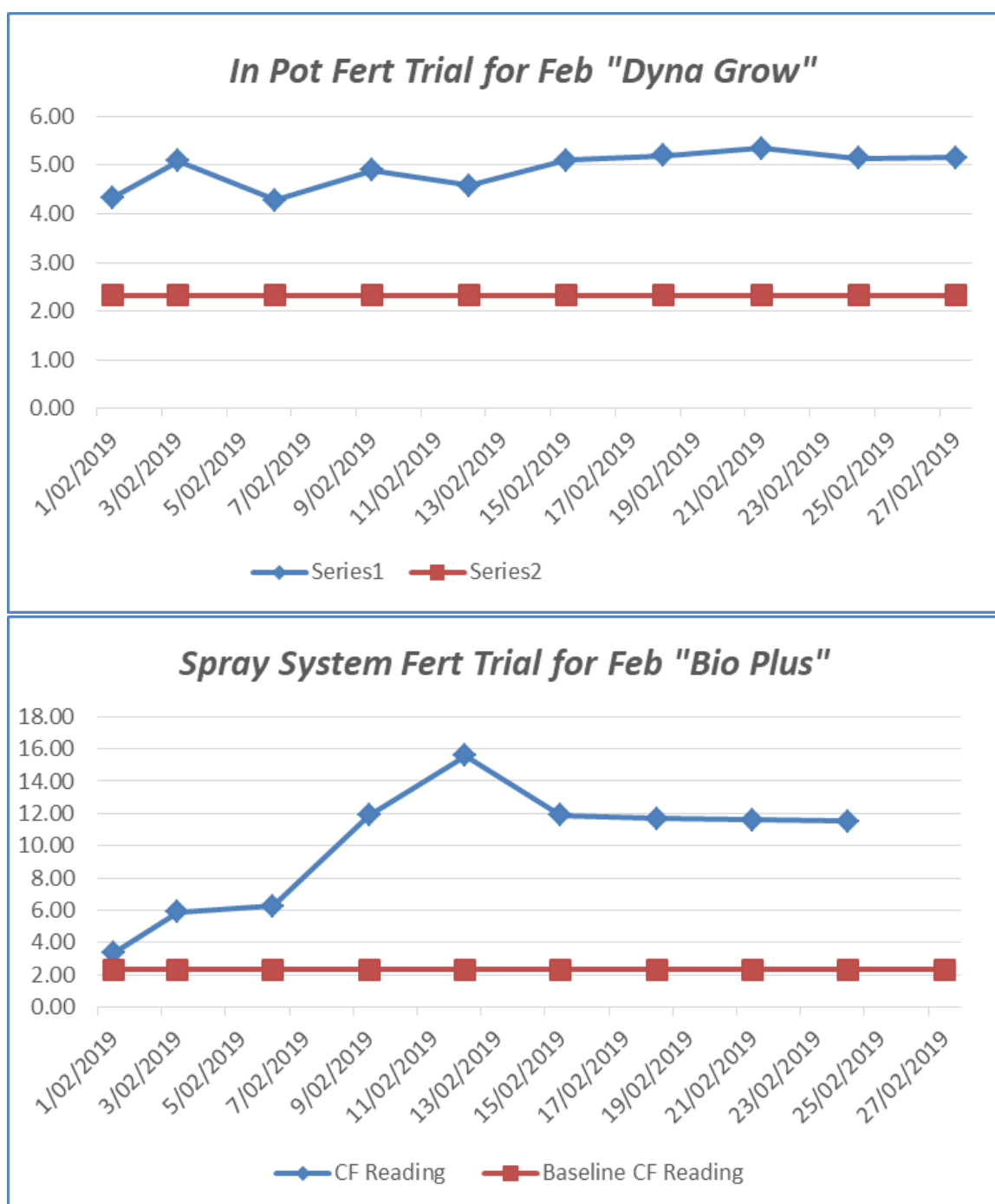


I decided to use the single mix product in the in-pot system and the two mix product in the spray system as this is what I had been using to date.

I have found these purpose designed products to be better than general off the shelf fertilizers due to the info supplied and the awareness of the N. P. K factors

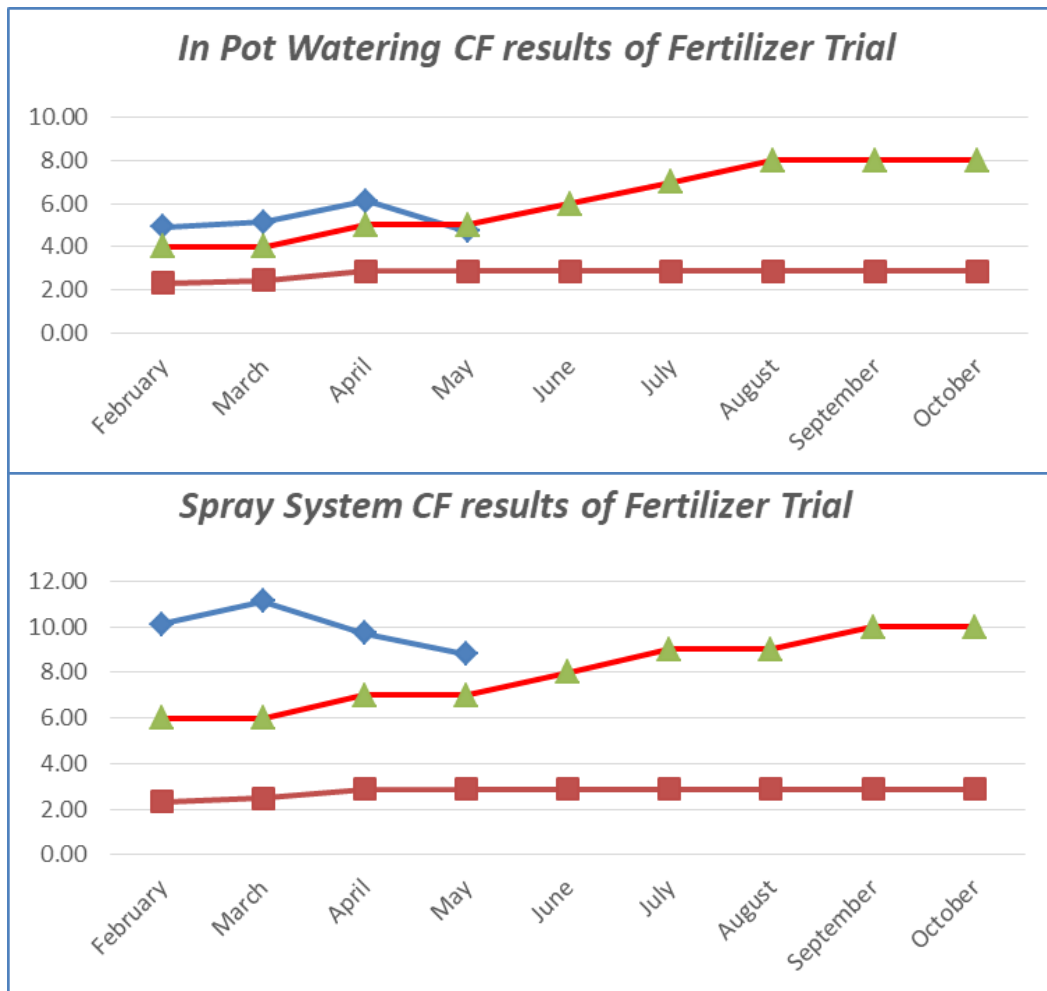
Start and Monitor. Review results at least each watering to view any improvement.

Using a spreadsheet program such as Excel you can plot activity in graphic form. This will provide a reasonable accurate picture of performance levels for comparison against physical results. It will also show you the concentration levels of your fertilizer should they vary. Sample Graph below;



The above graphs show a snapshot of one month's performance.

In particular you can see the variation of concentration result in the spray system. I put this down to water pressure available at the time of delivery. The higher the pressure the higher the graph as the solution via the Ventura is drawn into the system. This tended to indicate that in part the fertilizer maybe being wasted whereas with the relatively stable graph of the in-pot system that the fertilizer was being applied more directly. Targets set are guidelines or points by which expectation can be compared with an actual result. This is shown in the overall trial graph example.



RESULTS PRODUCED WITHIN THE FIRST FOUR MONTHS:

The first graphs although for February only showed that the in pot system produced a more stable fertilizer input with plants developing as expected. This result has been reflective throughout the trial to date.

The graph showed the Ventura feed system tended to fluctuate considerably on occasion. This seemed to be caused by variance in the town water pressure with watering / Fert times extending 5 to 10 minutes past the initial trial test time frame. Plants seemed to be developing as expected.

The baseline CF was tested each month and the graphs were re calibrated to suit. As shown in the overall graph you can note the trending. In the above graph the red line indicates the target and the blue line the actual result. These results are compared against the water only CF measure.

By applying the water Fertilizer on regular timeframe tended to provide accelerated growth particular in the in-pot system. This indicated to me that there is a distinct possibility the Ross Tucker challenge of three flowerings a year is indeed possible on a regular basis.

OVERALL COMMENT, RECOMMENDATIONS & CONCLUSIONS TO DATE:

Comment on Process

I am a great believer in the principle “what gets measured gets done” as it tends to confirm outcomes. I think this trial in part to date is providing measurable results.

While some will say that to subject plants to a regulatory timeline approach can generate a conflict with

nature whereas plants benefit from being watered and feed as needed provides a better result can be argued into the next millennium.

I have found the structured approach to be easy to manage and allowed me to gain better understanding around the rest period some genera require.

By way of the theory and we all have these I suggest that plants subjected to a routine produce a better result after a structured rest period. To quantify this I see them once you restart the water Fert process searching / absorbing the nutrients at a faster rate accelerating their growth spurts etc.

Well as I said that's my theory.

Recommendations and Conclusions

Having the ability to monitor the effectiveness of Fertilizers is of value in terms of cost saving a plus.

The trial to date showed I used more Bio Plus than I really needed to.

Consideration to installation of a pressure regulator for the spray system as a result of pressure variance would provide known flow rates. (Domestic pressure regulating valve)

While expensive incorporating an injection system (complete in pot water feed system) be it costly over a period of time would save in terms of water and fertilizer usage.

Continue with the program through to Flowering completed.

Having changed to the Bloom Fert clearly indicated that the CF factor is influenced by the nitrogen value in the Fert mix. I intend to go back to Grow Fert for June.

Plants are certainly benefiting from both fertilizers and systems. This tends to indicate to me it's the system we use rather than the fertilizer. My personal preference being for a single mixed product and in pot watering as there are some plant benefits starting to appear.

Many thanks to Greg and Lyn from Bio Leaf Plant Nutrients Ltd for their support with this trial.

If anyone would like further detail on this trial or the spreadsheet program I am happy to oblige please feel free to email me at: aj.watson@xtra.co.nz

You can also gather technical info on the products being used at: <https://www.bioleaf.co.nz/>

In the next issue I hope to be in a position to provide an update on the Fern Fibre Substrate trial with my *Miltoniopsis*.

Allan Watson