Massachusetts Orchid Society

P.O. Box 1041 Medford, MA 02155



SEP 2021

INSIDE THIS ISSUE

Minute Minutes

Message From the President

Upcoming Events

BBQ photos

Article: Virus testing an (entire) orchid collection for CymMV & ORSV: the surprising results at AEO

AOS Webinar Greenhouse Chat & AOS Corner

Officers, Directors & Chairs



We are super excited to report that Brigitte has snagged two more vendors for our show; world-renowned growers, Ecuagenera and Andy's Orchids (along with some other very outstanding vendors). Terrific work, Brigitte! Click the links below to view catalogs and whet your appetite for show shopping. If something catches your eye, be sure to email them about availability for purchase at the show.

Ecuagenera Andy's Orchids

Join the fun planning the Mass Orchid Society Show! This is our biggest event of the year and requires a lot of work to succeed and we need your hands in this pie! There are opportunities to help set up the floor, hospitality, greeting and selling tickets at the admission desk, selling tickets to the hourly raffles, clerking during the judging, helping breakdown the display after the show, or even volunteering for an at-large time slot to help wherever needed. Click here and join the fun!

- The show committee meets virtually on the 3rd Thursday of each month. For information on how to join meetings, click here.
- We have budgeted \$1500 for awards, and we need your help by way of sponsorships. Click the link here to select an award to sponsor. Our vendors, the New England Orchid Societies and our own MOS members deserve to be recognized for their contributions to the Show.
- Got extra orchid supplies you want to unload? Looking for garden swaps? Advertise right here in our new Minute Minutes Member's Classified section. Email Anne at newsletter@mos.org to post in the next newsletter.

The board is always interested in suggestions for speakers and topics, plus ideas for special programs for upcoming general meetings. Please email them to mos-board@googlegroups.com.

Find us on Facebook at www.facebook.com/massorchid and Instagram at www.Instagram.com/massachusettsorchid.



Message from the President

It Takes a Village

It always amazes me how unselfish everyone is with their time and energy. Not only did we pull off a successful BBQ – threading the needle between tropical storms, but we also provided for the Society by increasing our coffers and provided for our members by giving all that had room an opportunity to try growing a plant or two at a very fair price.

Between the effort made by several members to obtain the donated collections (5 trips alone to Manchester-by-the-Sea), moving the collections to Pepperell, cleaning, inventorying, reporting, temporary housing, and staging for the event, and that was just the sales part. The venue prep for the BBQ that started the week before, as well as all the last-minute details, made all things appear seamless.

All the wonderful side dishes, and man the desserts.

AND THE BEST PART, Seeing everyone in person.

Now that was a BBQ!

Now for a couple of disjointed, passing thoughts:

If you brought ceramic pots home with you, it may be good engineering practice to wash them out with the detergent of your choice then either soak in bleach to disinfect (soaking in clean water after to disperse the bleach) or put the washed pots into your oven at 250 for an hour. Either protocol or a combination of both will prevent any remnants of virus from remaining active. Watch using ammonia- based detergents with bleach!

Our Annual Show is coming fast. It'll be here before you know it. No matter your experience, please sign up for the myriad of positions that we as Society Members fill to make the show a success. If you only have time to do one thing as a volunteer – sign up to clerk during the judging on Friday, the 22nd. The first time I did it some 20 years ago I learned sooooo much. And this year I am confident that I will again increase my knowledge. Please HELP!

The AOS Judging Center is open for business. Mask and social distancing are requested. See Page 3 or Google AOS Judging for details. MOS has made a donation to the above-mentioned Judging Center to help with their effort to start back in-person. The donation was made in memory of Betty Levine, a long-time proponent of all things MOS and the Judging Center, as well as their volunteer secretary. She will be sorely missed.

We lost another long-time member this year as well. Charlie Briggs Jr. was an integral part of the Mass Orchid Society for more than 50 years. In his memory, we are introducing the Charlie Briggs Jr. Memorial Award; an annual award that I see going to the individual or individuals that work as a team to the best benefits of the Mass Orchid Society. In a way, this award can be considered an Unsung Hero Award to those that are consistently making our Society run smoothly – helping us meet our mission statement – representing us graciously to the Orchid Community outside of the Society (think setting up displays in other shows, for instance) and otherwise - that person whose "can do" attitude and actions are the best that we as a community of Orchid Growers can be. Come to the Holiday party in December to see its inaugural roll-out.

Looking forward to seeing everyone again on September 14th at Sons of Italy. I've still got clay pots (See Page 4) and some wonderful Orchid books for your library for extremely reasonable prices. Let me know if you want me to bring them.

Thank You everyone, for making this an August Meeting for the Ages.

Brandt Moran



UPCOMING EVENTS

Monthly AOS Judging at Tower Hill 04 Sep 2021 11:00 AM

<u>Growing and Caring for Orchids – Brandt</u> Moran

09 Sep 2021 1:30-3:00 PM

Giving Tree Senior Living - 1827 Bridge St Dracut, MA (details p. 5)

14 Sep 2021

<u>IN PERSON Monthly Meeting – J&L Orchids,</u> <u>Cordelia Head</u>

14 Sep 2021 7:30 PM

Sons of Italy - 117 Swanton Street, Winchester, MA

<u>Monthly Meeting – Extended Show Table</u> and culture discussion

12 Oct 2021 7:30 PM

Sons of Italy - 117 Swanton Street, Winchester, MA

Mass. Orchid Society Show & Sale presents "The Carribean"

Sons of Italy - 117 Swanton Street Winchester, MA 22 Oct - 24 Oct 2021 Details below



The MOS show is going live!

We are looking for volunteers for event setup and breakdown, hospitality, clerking, ticket sales and much more.

Click <u>here</u> for details and sign-up sheets.

Oct. 20th

Setup (set up: floor layout, pipes and drapes, etc.)

Oct. 21st

Build MOS display. Vendors and NE Societies arrive to set up their displays and tables

Oct. 22nd-24th Show Dates

Join us in-person this month when Cordelia Head presents, "Masdevallias and their culture"

Cordelia Head is one of three previous owners of *J&L Orchids* and is proud to be associated with the new owners, the Carreno family. She has been growing orchids for more than forty years. Cordelia is on many international orchid committees involving orchid conservation and orchid judging. She is an American Orchid Society accredited judge and served on the Awards Committee for several years.

Cordelia has been fortunate to travel extensively throughout Central and South America in search of orchids. She has discovered many new species and has three named for her. Cordelia has lectured both nationally and internationally including the World Orchid Conferences in Miami, France, Malaysia, Vancouver, Glasgow and many others.

J&L is offering MOS members a 10% discount on pre-orders. Pre-orders can be placed by phone directly at (203) 261-3772, or through their website at https://jlorchids.com. To receive the discount, check out using the coupon code MassOS.

Please have your plants on the show table by 7 p.m.

The American Orchid Society Northeast Judging Center Is Back!

In-person monthly judging has resumed at Tower Hill Botanic Garden, 11 French Dr, Boylston, MA 01505. We meet in Classroom C and are adhering to State of Massachusetts pandemic safety rules and encourage exhibitors to bring orchids to be judged within the guidelines outlined below.

10:30AM - doors open and announcements

11:00AM - 12:00PM – educational presentations

12:00PM - All plants to be judged must be checked in by this time

12:00PM - 1:00PM - Plant research and lunch break

1:00PM - 4:00PM AOS plant judging

Cut flowers should be sent to: Robert Winkley, 80 Florida St, Unit 9, Dorchester Center, MA 02124

This event will adhere to all current local and state social distancing guidelines during the pandemic, as safety is our priority.

Many, many thanks to Brandt and Lisa Moran for their warm hospitality hosting the first MOS in-person gathering - in over 18 months! The August BBQ/orchid sale drew over 75 guests, and every orchid was sold! Books and clay pots are still available for sale. Email Brandt if interested. Small pots - 15 cents (perfect for just out of community pot seedlings) 4" pots - 25 cents; 5" and up - one dollar.

















There was one odd fellow who showed up and seemed completely giddy by the sight of so many orchids. Was he a collector or a thief? He left his calling card behind.

HOME ABOUT MOS	UPCOMIN	IG EVENTS № 20	021 SHOW 🖭 JOI	N MOS RESOURC	ES MEMBI
Virtual Show Table	Newsletters	Show Results	Members Only	Blog: An Orchid Affair	
Member Directory					
Member Director	y				<u>Clear values</u>

Last name ~ First name Organization V e-Mail ~ Alternate e-Mail V Phone Alternate Phone ~

Did you know that MOS dual members can electronically receive our monthly newsletter? Under "Member Directory" on our website, fill in member's Alternate e-Mail as shown!



HOST Giving Tree Senior Living

Thursday, September 9th, 2021 1:30 - 3:00 PM

LOCATION

1827 Bridge Street Dracut, MA, 01826

Tea Pairings, Sweets, **Raffles & Mementos**



If you plan to attend, please RSVP Brooke by calling (866)957-8733, ext 105.

Please RSVP by calling Brooke at 866-957-8733 Ext 105



greenhouse, learn practical tips on how to add Orchids to

Pepperell, MA will share his vast

knowledge and experiences as a hobby grower for 25 years. From a windowsill to building his own



The following article is found on the website, An Essence Of Orchids

Virus testing an (entire) orchid collection for CymMV & ORSV: the surprising results at AEO



Negative orchid virus test for CymMV and ORSV using the Agdia, Inc. test kit

Orchid viruses are one of the "known mysteries" in orchid growing and collection. They are widely recognized as a concern; any thorough reporting demo or orchid culture talk implores the audience to take precautions to disinfect cutting tools, pots, and prevent cross-contamination on potting benches. Yet very few people systematically test for viruses in their orchid collections or request a test at purchase. Only recently have virus tests for Cymbidium Mosaic Virus (CymMV) and Odontoglossum Ringspot Virus (ORSV) been required at local orchid society auctions in our area.

While 17 viral pathogens have been confirmed to infect orchids (pers. comm., Janet Lamborn, Agdia, Inc.), it is believed that over 95% of infections are from CymMV and ORSV (pers. comm., Kay Klausing). These are the two "home testable" orchid viruses, and the viruses which I will discuss in our findings.

For this article, I will focus on our results from virus-testing our orchid collection, and the patterns indicated. I will also add my practical suggestions, to hopefully save you time and money in the testing process. (In another article, I describe our process for orchid virus disinfection of repotting tools.)

Note: I am not presenting our orchid virus testing as a scientific study or analysis. We grow mostly species and primary hybrids of a few genera. There is nothing random or representative about our orchid collection; however, the samples of the genera are large enough to point towards some meaningful trends to consider.

Testing our entire collection for CymMV & ORSV

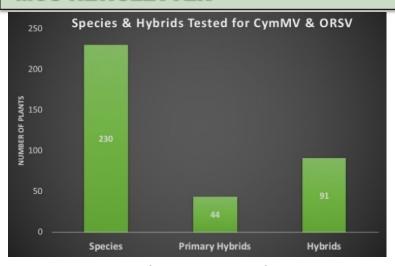
In my inquiries, I have found little information available on how widespread orchid viruses truly are in orchid collections and nurseries. A lack of tangible data can lead to a lot of assumptions and mythology.

I was a participant in some of the assumptions, as I describe below, and assumed a minimal risk for most of my collection. Our findings have inspired me to offer the detailed results, to encourage others to re-evaluate their expectations, and how they wish to approach dealing with orchid viruses in their collections and purchases.

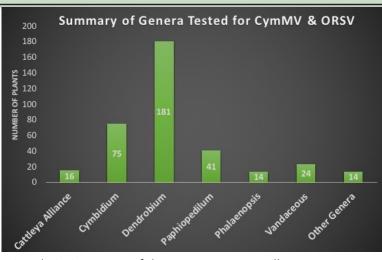
In some respects, orchid viruses are a bit of an "inconvenient truth" that growers and vendors have not widely made the efforts to investigate, expose, and directly address. I've received quite the range of responses when reporting the virus status of an orchid after a purchase. Sometimes denial, sometimes non-response to emails, sometimes a full refund with no questions asked. Before a sale, the messages are also routinely mixed: no testing needed, no symptoms of viruses here, or viruses really aren't that much to be concerned about. And the ubiquitous: "it is too expensive to test my plants."

Recognizing the diversity in attitudes, and frequent lack of transparency regarding virus tests, we decided to take on the time and expense of testing ALL of our blooming and near blooming size orchids to shine the light on orchid viruses effectively "hidden" in our un-tested plants. I also wished to understand the patterns of virus distribution across genera that I collect, and from different vendors, for the future considerations of our collection.

While this is a relatively small sample (365 orchids at the time of these test results), I found it large enough to observe some meaningful patterns. We did not test any seedlings de-flasked within this year; they are too small and it would be necessary to use much of the plant for the test.



Graph 1: Summary of the distribution of orchids by type at the time of testing.



Graph 2: Summary of the genera in our collection at the time of testing

Species are the majority of our collection (63%), with primary hybrids (12%) and more complex hybrids making up the remainder (25%) (Graph 1).

Graph 2 summarizes the distribution of genera tested in our collection: *Cattleya* Alliance (4.3%), *Cymbidium* (21%), *Dendrobium* (47%), *Paphiopedilum* (11.2%), *Phalaenopsis* (3.8%), vandaceous genera (6.5%), and other genera not included in the former (3.8%). For reference, of the *Dendrobium*, about half (54%) are Australian *Dendrobium*.

Especial appreciation for the inspiration for our virus testing endeavor is extended to Dr. Kay Klausing, molecular biologist and president of the San Diego Orchid Society. He gave an eye-opening talk on orchid viruses to the San Francisco Orchid Society in October 2018, and shared detailed results of testing his entire 1200 plant collection. While I had already tested our entire *Cymbidium* collection, after his talk, I realized it was time to step up and test the rest.

Starting with Cymbidium: Assumptions and expectations about viruses

As noted above, we had long recognized the prevalence of orchid viruses in *Cymbidium*, due to the many decades of plant divisions passing through commercial nurseries en masse without disinfection procedures between orchids. An older grower once commented that he would divide and repot a hundred *Cymbidium* in a day without any hygiene or disinfection between plants. Similarly true for commercial *Cattleya* production. I have heard numerous comments about widespread viruses in "heritage *Cattleya*."



Half (3) of the ORSV positive Cymbidiums in our collection were older cultivars of *Cymbidium lowianum*. The virus-infected primary hybrid was a hybrid of *Cymbidium lowianum* as well. No other *Cymbidium* species (24 plants) or primary hybrids (9) were infected in our collection.

Under these conditions, it is easy to see how viruses could rapidly spread and be prevalent in older *Cymbidium* and *Cattleya* cultivars. *Cymbidium* growers in California have actively recognized this, and were instrumental in the development of the quick, "home" CymMV and ORSV test kits that most of us in the USA currently use for virus testing (Agdia Labs). One well-known California grower has a comprehensive virus policy on their website with offer of pre-testing for sales, and our local *Cymbidium* societies now require virus testing for plants entered into their very popular auctions.

Suffice to say, I had strong awareness of virus concerns for *Cymbidium*, and we tested our entire collection, and have tested every new *Cymbidium*. For the initial testing of our 70 *Cymbidium* plants, we found six plants (8.5%) with ORSV — ALL purchased from one local grower. I describe the details with our other results below.

Our Virus Testing Process

One of the key sources of resistance to virus-testing is the cost of the <u>CymMV/ORSV test kits</u> from Agdia, Inc.; with shipping they are currently about \$5.75 per test. While Agdia does NOT make this recommendation in their instructions with the kits, it is possible to test multiple plants with each kit. I have found it highly sensitive at detection, even with small samples, as long as the sample quality is good (enough cellular liquid content and well crushed). When testing multiple plants, I take extra care to crush each plant's sample individually, and then thoroughly mix the buffer solution in the test kit.

My experience is comparable to Kay Klausing's suggestion of six plants per test as optimal. With more plants and sample material, I have found the dilution of the sample in the buffer solution to be too high, and the test takes a long time to process. He noted that some members of his orchid society have successfully cut the test strips in half; I have not tried this.

There is another manufacturer of test kits from Taiwan, <u>Regabio Technology</u>, but they do not have a US distributor. However, the San Diego Orchid Society placed a group order, which resulted in a substantial discount, bringing the tests to about half of the price of the Agdia tests. The Regabio test kits require a smaller sample size than the Agdia tests and remain shelf stable for 18 months. (Update: in 2019, we switched to Regabio. They sell test kits in boxes of 50. With international shipping and fees, the price per test was \$3.80 with the purchase of two boxes.)

I used a new, disposable razor blade to obtain each sample from the plants. While it may vary by genera, I found roots to be excellent for sampling with the Agdia test kits. It was easy to obtain a small piece of root and allowed for more plants to be combined into one test kit with less adverse effect on the dilution factor than leaf material (especially from thickleaved *Dendrobium*). For the Regabio test kits, I generally use leaf material, but a much smaller sample is required.

There is a caveat for how many plants it is useful to combine into one test. After all, if you get a positive result, then you have to start testing the orchids individually to find the one (or more) with virus. If you have a high virus prevalence in your collection, you could wind up actually using MORE test kits by combining multiple plants into one test than if you just tested each one individually. Unfortunately, when you start testing you have a big unknown: you do not know what percentage of your orchids are infected. However, as you proceed, you may obtain some experience to determine which plants are lower risk and can be combined into one test with a greater likelihood of negative results. Once I saw the patterns, I started testing "high risk" orchids individually. I determined the "risk" by the age of the cultivar and the source of the plant.

It is hard to say in advance what approach will ultimately work the best for an individual grower, since each collection is so unique. I organized our testing by orchid vendor, since, from my *Cymbidium* testing described above, I had identified the plant source as highly correlated to positive virus test results. In Dr. Klausing's presentation, it was notable that specific vendors also accounted for a large majority of his infected plants. I ultimately found the same.



We own many thick-leaved Australian *Dendrobium* like this *Dendrobium speciosum var. pedunculatum*. I found using a piece of root less damaging, and more amenable to testing multiple plants, instead of a leaf sample. For one *Dendrobium speciosum* that did not have a "juicy" root outside of the pot, I sampled part of a leaf; it subsequently dropped the entire leaf (and no others). I observed the leaf drop after sampling in a few other *Dendrobium* as well. Unfortunately, when you start

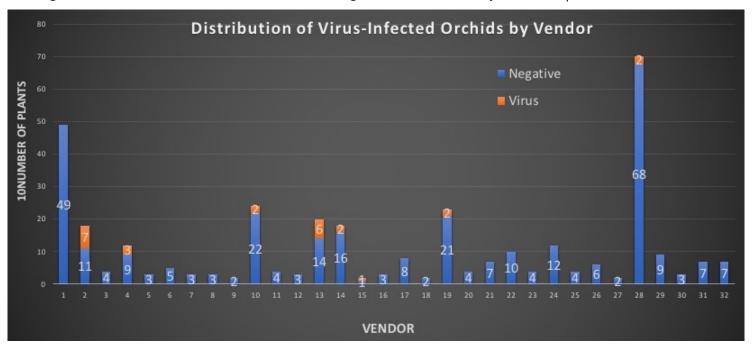
Results & Discussion

With such a long prelude, the results of several days of work can be summarized fairly succinctly. In total, 6.8% of our collection tested positive for CymMV or ORSV. 11 orchids tested positive for CymMV, eight tested positive for ORSV, and six were positive for both CymMV and ORSV. I elaborate on these results by type, genera, and vendor in the three following graphs.

Orchids in our collection were acquired from a total of 41 different sources. However, 10 of these were purchases of only 1 plant and none of these single purchases were infected with virus. I have excluded these vendors from the following graph, and only include sources of 2+ orchids.

Three local growers accounted for most (67%) of the positive results. To my horror, I determined that 3 of 7 plants that I purchased at ONE nursery open house were infected with CymMV. All were healthy, vigorous orchids with no symptoms of virus, even in hindsight.

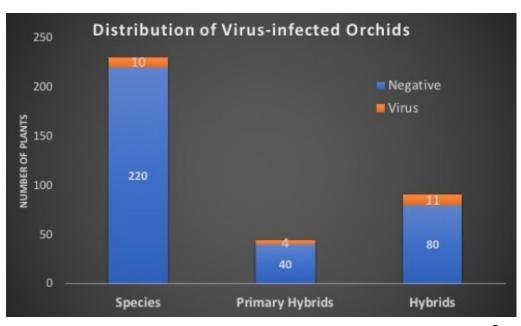
My appreciation and recognition of Andy's Orchids, our second largest source of orchids: NO virus positive plants, of the 49 that I have purchased. Kay Klausing also reported no virus-positive orchids from Andy in his collection. Also notable, my largest source of orchids only resulted in 2 of 68 plants to be positive with CymMV (both older divisions/cultivars). Clearly, virus detection, disinfection, and handling practices within greenhouses are significant — and effective — for maintaining a virus-free nursery and sale plants.



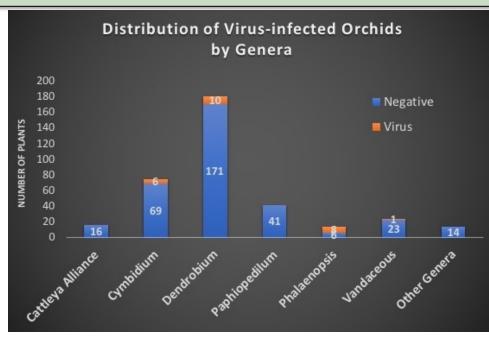
Graph 3: Distribution of virus-infected orchids by vendor, including only sources of 2+ plants

Species orchids were the largest portion of our collection (230), and accounted for the lowest virus incidence (4.3%). Primary hybrids (44) and more complex hybrids (91) were similar in virus incidence, 9% and 12% respectively (Graph 4).

Graph 4: Distribution of Virus-Infected orchids by species, primary hybrid, and more complex hybrid.



In total, there were six Cymbidium, 10 Dendrobium, one Sarcochilus, and eight Phalaenopsis infected with CymMV and/or ORSV (Graph 5). There were no virus infected Paphiopedilum, vandaceous, or Cattleya Alliance plants. For clarity, we do not own any orchids in the Cattleya genus; our Cattleya Alliance plants are all Leptotes, Epidendrum, Laelia, and Rhyncolaelia. I discuss each infected group below.



Graph 5: Distribution of orchids testing positive for CymMV and/or ORSV by genera in our collection at the time of testing.

Phalaenopsis

The only indication of cross-infection within our collection was amongst the *Phalaenopsis*. These were complex hybrids that resided at my husband's company for many years, cared for by employees and myself. Disinfection of clippers after cutting flower stalks was minimal to none; when the plants were first acquired many years ago, no one even knew of orchid viruses.

The surprising result with the *Phalaenopsis* collection exposed one of the false assumptions that I had about orchid viruses: mericloned *Phalaenopsis* would be low risk for virus. Apparently, a very incorrect expectation. Seven of eight of the virus-positive *Phalaenopsis* were obtained from the same reputable local orchid nursery (not a grocery or box store), though



A well-known mericlone, <u>Phalaenopsis</u> <u>stuartiana</u> 'Sogo', found to be infected with both CymMV and ORSV.

originally imported from Taiwan. No other orchids that I obtained from that nursery (including *Paphiopedilum*, vandaceous orchids, and *Dendrobium*) were virus positive.

From what I can speculate in hindsight, 2-3 of the *Phalaenopsis* that I initially purchased had virus, two with CymMV and one with ORSV, and subsequently spread it to another four in the office. All were asymptomatic, flowering and growing profusely.

One infected *Phalaenopsis* was a mounted species (mericlone import from Taiwan) and kept separate at our house. I believe it was also likely infected upon purchase, given little to no contact with any of the other infected plants, and my strong disinfection procedures at home.

Cymbidium

As noted above, all of the infected *Cymbidium* came from one local grower and all were infected with ORSV. These included three species, one primary hybrid, and two complex hybrids.

The species and primary hybrid were older clones, and fit the pattern described earlier of being infected in the pre-virus awareness days of orchid culture. However, the complex hybrids were seed-grown at their nursery, strongly indicating transmission within their collection. Fortunately for us, our disinfection procedures

SEP 2021

prevented any apparent spread. (I would like to note that it is possible to transmit viruses through flasking orchid seed, if the inside of the seed capsule of a virus-positive orchid is scraped and the virus material is introduced into the media. However, if the seed is shaken from the capsule, and no parent plant material is intermixed with the seed, then the resulting seedlings should be virus free.)



Does this profusely blooming <u>Sarcochilus</u> <u>hartmannii</u> look like it has virus? It tested positive for both CymMV and ORSV. All positive tests in our collection were asymptomatic, with the exception of two poorer growers. However, several other less vigorous growers tested negative for virus.

Dendrobium & Sarcochilus

The 10 infected *Dendrobium* came from six different growers, and all were infected only with CymMV. Older cultivars of *Dendrobium* were the stand-out (60%) amongst the infected *Dendrobium*. Three of the infected *Dendrobium* were divisions from old species plants and three were divisions of old primary hybrids; two of these were originally wild-collected.

Three commercial growers had two infected plants each detected. However, these included the old primary hybrids and species described above, and another older hybrid. I have purchased dozens of non-infected plants (seed grown and divisions) from these same nurseries. It appears that these plants are fairly isolated in their nurseries. With this experience, going forward, I will certainly be very careful in considering purchasing ANY older cultivars or specimens, regardless of the nursery.

One local, commercial vendor had the highest infection rate: 3 of 7 plants purchased at a recent open house. This included two mounted *Dendrobium* species and one *Sarcochilus* species. The final infected *Dendrobium* was a primary hybrid purchased from a well-established online commercial

grower. I have only purchased two orchids from this source.

Reflections on the Virus Testing Process

I can say that it was a rather trying process, watching each test to see if one of my cherished plants would test positive. That being said, I am VERY grateful to have undertaken the time and expense. I feel relief knowing undetected CymMV and ORSV infected orchids will not able to inadvertently infect other orchids in our collection, or be given/sold to another orchid grower. The thought of unknowingly spreading orchid viruses is far worse to me than the cost and effort it took to test our plants.

That being said, our disinfection and handling procedures are even more rigorous now, despite knowing the CymMV and ORSV status of our orchids. We still treat each orchid as potentially virusinfected. Why? Because each plant STILL is potentially infected with an orchid virus. There are other orchid viruses that have not been tested/identified, and always the possibility of a false negative remains. In fact, the Agdia virus test kits were recently updated to be sensitive to a previously undetected Asian strain of CymMV; therefore, we can only be assured of knowing the virus status of a plant for what is currently detectable with

What to Do with the Virus Test Results

the available kits.

What to do with orchids that have tested positive for virus is a complex and often emotional question. Orchid growers have very different perspectives about retaining virused orchids in their collections. I do not make a recommendation, or imply a criticism of anyone else, in sharing how we handled our test results.

11

I personally do not wish to maintain orchids with viruses in my collection and will test all newcomers to ensure that we do not obtain more. A small orchid with virus will become a large orchid with virus — where will the all of the effort in growing ultimately lead? As I commented above, we do not wish to be in a position where we could spread virus to other healthy orchids in our collection, or to someone else's collection. That is antithetical to why we grow orchids.

We disposed of all of the orchids with positive test results with four exceptions. We decided to keep (for now at least) the two wild-collected *Dendrobium* natural hybrids, a large *Dendrobium linguiformis* specimen, and a very old *Dendrobium* division originating from a royal garden in Asia. We retained these plants because: 1) they had a very low risk of infecting other orchids, and 2) they were irreplaceable, with all known divisions likely also virus-infected.

We considered the risk of spreading infection from these orchids to be low because they are: 1) slow growing and well-contained, 2) reside separately from our other orchids, and 3) are infrequently reported. When we do need to trim flower stalks, etc., I will only use a disposable razor blade. They will be reported in a separate location on the property, away from any other orchids. Old pots, media, stakes, etc. will go directly to the garbage.

Final Thoughts

Thank you if you are still reading this long discussion! I hope that the results and my reflections will be useful to you in your orchid growing. I believe that all orchid growers can benefit from greater awareness and transparency regarding the presence of orchid viruses. If there is a down side to testing for orchid viruses, it would be finding out something that we wish was not true, i.e., identifying a virus infected plant.

I reached three key conclusions from the testing of our collection:

Older cultivars — both species and hybrids — have the highest risk of infection

Most virus infected plants originated from a small number (3) of local vendors

Some genera have higher infection rates than widely realized (*Phalaenopsis*) and some genera (*Paphiopedilum*) appear to have consistently lower rates of virus infection

With regard to the low rates of infection for *Paphiopedilum*, at a talk by Brandon Tam, the orchid curator at Huntington Gardens in Pasadena, California, he stated that they randomly tested 300 of their 6000+ *Paphiopedilum* and *Phragmipedium* collection. He found one positive result (*Phragmipedium*). Especially in mixed genera collections, the risk of virus infection in *Paphiopedilum* is always there, but seemingly lower than other genera. Possibly this is because Paphs are seed-raised and infrequently divided compared to other genera, such as *Cymbidium* and *Cattleya*, reducing virus exposure over the decades.

Update

I have continued to test every orchid entering our collection (with the exception of newly deflasked seedlings). Over the past two years, I have tested another 150 orchids, and my recent experience has been consistent with the original testing results. I have encountered two positive test results, both divisions of older cultivars. The perspective and awareness that has come from testing well over 500 orchids has significantly influenced our orchid sourcing and acquisition. Now we primarily purchase seedlings, flasks, and select divisions from fully-tested collections.

Best wishes for your orchid growing! A'na Sa'tara, D.Phil Brought to you by the American Orchid Society, the Orchid Marketplace is a curated collection of the world's top orchid vendors.



The Orchid Marketplace is launching on August 1, 2021 to give you easy access to everything you need to grow and care for your orchids in one convenient location.

You'll find everything from thousands of orchid species and hybrids to rich nutrients, the latest orchid supplies, books, equipment, handmade orchid pots, greenhouses, and even orchid jewelry.

Those of you who are AOS members will save a minimum of 5% from every Orchid Marketplace vendor. AOS members that renew for a 2 year term will receive a \$30 coupon from EACH Elite Marketplace Partner upon renewal on purchases of \$100 or more that's hundreds of dollars in savings.

If you aren't an AOS member yet, this would be a great time to join the AOS and enjoy all the benefits including the exclusive savings from Orchid Marketplace vendors.

Stay tuned for the Orchid Marketplace launch on August 1st...and keep your eyes on your inbox for a sneak peek on Saturday the 31st!

Sincerely,

American Orchid Society



Hillside Nursery

The Website is updated for Fall 2021 shipping

Hi Folks,

Just a quick note to let you know that the website is now updated for fall shipping. This season, I am excited to offer a few new plant varities, and of course, many of our old favorites. We will be shipping during the first two weeks of October.

This has been our first summer at the greenhouse site, and we are settling in to our new home. The big project in the coming months is improving our irrigation and erecting some additional shade-houses.

I hope everyone is doing well, staying cool and having a great summer!

Best wishes,





·THE AOS CORNER·



Greenhouse Chat with Ron McHatton Orchid related questions answered by AOS experts.

Click <u>here</u> to watch now.

Note the specific times below if you wish to watch or listen to those topics.

01:10 Leaves losing chlorophyl

05:55 Edema (Blisters) on leaves

09:27 Black lesions on Cattleya leaves

14:52 Cattleya- base of new growths dark

18:10 Oncidium (Odontioda) halted spikes

21:05 Oncidium- decreasing in size and not

flowering

28:07 Cooling a greenhouse with evaporative coolers

37:59 Calcium requirements for Vandas

40:03 Brown leaves on Vanda falcata

43:20 Dendrobium- yellow leaves and keikis

46:43 Dendrobium leaf spotting

50:52 Lycaste and scale treatment

53:40 Paphiopedilum leaf problems

56:07 Cattleya- aerial roots

58:57 Oyster shell for Calcium

1:00.08 Insecticidal drench to use before

bringing plants in for the winter

1:03.09 Misting fans for cooling

1:05.24 Cattleyas- folded leaves

1:06.19 Phalaenopsis- long spikes in

summer

Seasonal Orchid Care September/October

Click here for Checklist

Organizing orchid culture and its chores by season is a convenient way to make sure that your orchids get the proper care at the right time. Becoming in tune with your plants' growth cycles creates a connection with the natural world and makes you a better grower.

The American Orchid Society Northeast Judging Center Is Back!

In-person monthly judging has resumed at Tower Hill Botanic Garden, 11 French Dr, Boylston, MA 01505.

We meet in Classroom C and are adhering to State of Massachusetts pandemic safety rules and encourage exhibitors to bring orchids to be judged within the guidelines outlined below.

10:30AM - Doors open and announcements

11:00AM - 12:00PM - Educational presentations

12:00PM - All plants to be judged must be checked in by this time

12:00PM - 1:00PM - Plant research and lunch break

1:00PM - 4:00PM AOS plant judging

This event will adhere to all current local and state social distancing guidelines during the pandemic, as safety is our priority

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