




GYMPIE & DISTRICT ORCHID SOCIETY Inc. NEWSLETTER

Date/Month of Meeting: 28th September 2024

Website: www.gympieorchidsociety.com

Facebook: Gympie & District Orchid Society Inc.

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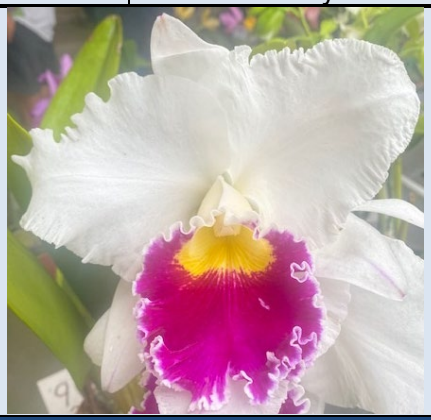
Message from the Editor

It was a wet and cool day for our Annual General Meeting (AGM) held at Jim & Leanne Evans place with the following people elected as office bearers for the Gympie Orchid Club for the next twelve months. Thank you to all club members who braved the wet conditions and also thank you to John Rees who travelled up to be the Returning Officer for our meeting.

President: Gary Walker **Vice President:** Sharon Stretton **Secretary:** Sharon Bartlett **Assistant Secretary:** Julie Walker **Treasurer:** Shirley Downing	**Editor:** Sharon Stretton **Librarian:** Jen Grainger **Show Steward:** Mel Wheeler **Assistant Show Steward:** Barry Grainger

Winners of the Popular Vote at monthly Meeting:

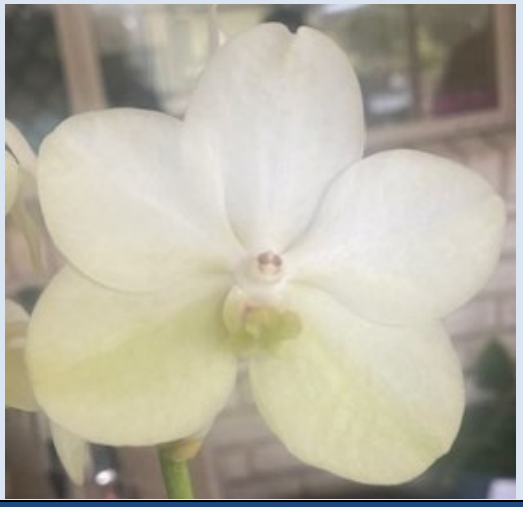
GENRE	Name of Orchid	Owner of Plant
Cattleya >100mm:	Rlc. Orglade's Grand 'Tian Mu'	Jim & Leanne Evans
Cattleya <100mm:	C. Pink Spice 'Lucy' X Ctt. Alsaks Pattern 'Hannah'	Jim & Leanne Evans
Species:	C. skinneri 'alba' X C. skinneri 'alba'	Gary & Julie Walker
Vanda:	V. Princess Mikasa 'alba'	Larry & Shirley Downing
Dendrobium:	Den. Gloucester Sands	Larry & Shirley Downing
Any Other:	Phal. King Car 'Honey Peach'	Larry & Shirley Downing
Novice:	Den. Nobile hybrid	Judy Ernst



Cattleya 100mm +: Rlc. Orglade's Grand 'Tian Mu'

Cattleya Less than 100mm: C. Pink Spice 'Lucy' X Ctt. Alsaks Pattern 'Hannah'

Species: C. skinneri ‘alba’ X C. skinneri ‘alba’



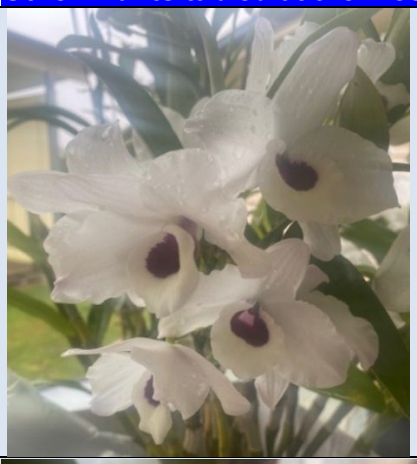
Vanda: V. Princess Mikasa ‘alba’

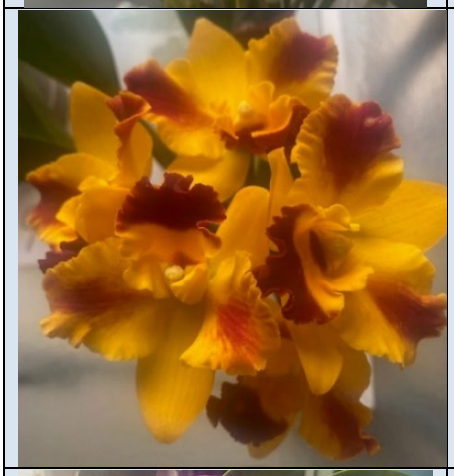
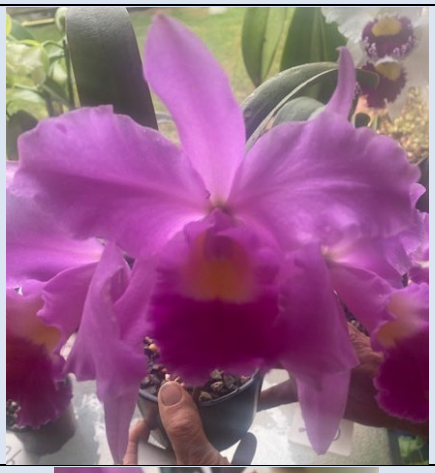
Dendrobium: Den. Gloucester Sands

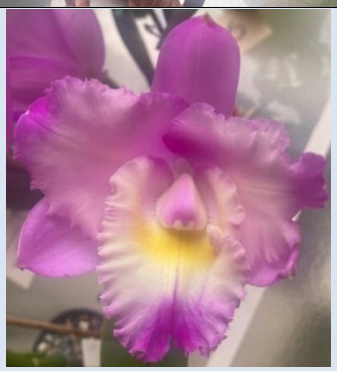
Any Other: Phal. King Car ‘Honey Peach’

Novice: Den. Nobile hybrid

Other Plants tabled at the meeting:




Winners of the Raffles for the day were:

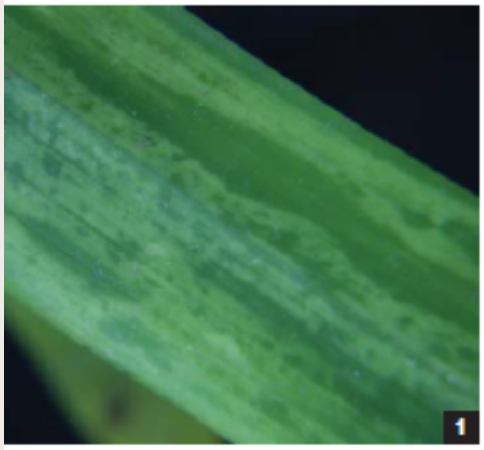
Sharon Bartlett, Kay Morrison, Sharon Stretton and John Rees. Congratulations to all raffle winners!

Editors Highlight – Detecting Virus in orchids

Reprinted from the SEPTEMBER 2003 issue of *Orchids* -- The Bulletin of the American Orchid Society.

Detecting Virus in Orchids

A New Field Test that's Easy to Use at Home/Text and Photographs by Loren Batchman



[1] Symptoms of ORSV (odontoglossum ringspot virus) on a cymbidium leaf.

[2] A cymbidium flower infected with both CyMV (cymbidium mosaic virus) and ORSV (odontoglossum ringspot virus). Very few cymbidium flowers show any color break with just ORSV, so the color break may possibly be due to CyMV (cymbidium mosaic virus).

[3] ORSV on a *Cattleya*-type flower.

FEW THINGS BOTHER SERIOUS orchid growers more than the dreaded V word — virus. Most, if not all, orchids are susceptible to one or more types of viral infection. There is no currently known cure for an orchid virus, other than discarding the plant. Some techniques have been reported that may be able to eliminate a viral infection in the meristem tissue-culture process, but these are tedious, costly and time consuming at best, take five to seven years before the plant may bloom again and are certainly not going to be economically effective for Aunt Gertrude's 70-year-old division of *Cymbidium* Alexanderi (Eburneo-lowianum × *insigne*).

The most common viruses in cymbidiums and other outdoor orchids are CymMV or cymbidium mosaic virus and ORSV or odontoglossum ringspot virus (also referred to as TMV-O or tobacco mosaic virus — orchid strain). Several other types of viruses, such as the orchid fleck virus, cucumber mosaic virus, bean yellow mosaic virus, various *Potyvirus* strains, and others can also infect orchids, but are much less common in collections and nurseries today than CymMV and ORSV, and seldom represent a problem for most growers.

Several methods of testing for the presence of the more common viruses have been available to the amateur orchid grower for a number of years: the Enzyme Linked Immunosorbent Assay (ELISA) test that is performed by several laboratories across the country, the Double Radial Diffusion test, and, of course, the indicator plant that shows the presence of virus by the development of necrotic lesions when inoculated by a virus. Of these, the ELISA test has been the most popular and is widely used by commercial laboratories. The time required to take a sample, send it to the lab and get results back is not practical for doing a spot test on a suspect plant in the nursery, as is waiting on the results from an indicator plant or the Double Radial Diffusion test.

NEW OPTIONS Several companies have recently developed tests for ORSV and CyMV that can be performed in the field and provide results in five to 10 minutes. These include Mukoyama Orchids in Japan, Forsite Diagnostics in Great Britain and Agdia, Inc., in the United States. Each of these tests requires a small sample of a leaf or flower to be ground up in a sample extraction buffer to provide a liquid test sample. Each then uses a test strip, broadly termed a lateral flow device that detects viruses by means of specific antibodies and antibodies tagged to color particles, to combine the sample with a viral antibody and dye and move the solution over a narrow line or stripe primed with a viral antibody to attach to the virus particles. The liquid sample is wicked up through the strip where it combines with specific detection antibodies tagged with a color particle. This sample-color antibody solution then flows over a line of specific capture antibodies. The virus is sandwiched between the line of capture antibodies and the detection antibodies that are tagged with a color particle forming a visible test line. The Agdia ImmunoStrip® and Forsite Diagnostics Pocket Diagnostic™ test strips include a positive control line as well to assure the validity of the test.

An ImmunoStrip® test for several different strains of tobacco mosaic virus has been available for several years from Agdia, and was effective in determining the presence of ORSV as well, since ORSV is in the tobacco mosaic family. An evaluation of the effectiveness of the generic TMV ImmunoStrip® test for ORSV published in the Sept–Oct 2004 *Cymbidium Society of America Journal* found it to be effective. This test suited a number of California cymbidium growers well, since CyMV is relatively uncommon to nonexistent in many cymbidium nurseries and collections. However, a similar test for CyMV was desired to complement the TMV test for screening

SOURCES

Agdia, Inc. (Web site www.agdia.com)

Forsite Diagnostics (Web site www.forsitediagnostics.com)

more mixed genera collections, and several California growers worked with Agdia to accelerate the development of a CyMV test.

The Agdia test has combined tests for both CyMV and ORSV in a single test strip, unlike the Mukoyama or Pocket Diagnostic tests, which require a separate test strip for each virus. Agdia also has developed similar test strips available for a number of other virus types also found in orchids, so that a particular plant can be tested for several of the other virus types with the same test sample, if desired.

HOW IT WORKS The Agdia test is available as a simple kit consisting of a sample extraction bag containing a grinding mesh with a buffer solution, and a single test strip for a combined CyMV and ORSV test. The sample bag is cut open, and a sample of the most recently mature or nearly mature leaf or flower weighing about .01 ounce (150 mg) is placed between the grinding mesh layers in the bag. The sample is ground up in the bag using a blunt stick, knife handle or other tool till the sample is thoroughly ground and the buffer solution takes on a green color, in the case of a leaf sample. The test strip is placed in the sample bag so the bottom 1/4 inch (about 5 mm) is in the buffer.

The buffer solution wicks up through the pad, picking up detection antibodies tagged with color particles before passing over the capture antibody stripes and the control stripes until the absorption pad is filled. The presence of either ORSV or CyMV, or both, is shown by a purple test line(s) in addition to the control line developed on the strip. The test strip takes about 10 to 15 minutes to completely fill the absorption pad. The control line usually shows up shortly after the solution reaches it, and in the case of a strong virus presence, the virus test line(s) may be visible even before the control line appears. Any appearance of a test line the same color as the control line indicates the presence of virus in the sample, so long as the control line is also present.

The development of these simple, relatively inexpensive field test kits provides a time and cost-effective way to quickly verify the presence or absence of the common virus types in an orchid collection. Now, the commercial seller can offer to test any plant prior to sale, and to certify that plants are free from a detectable virus level at the time of sale or shipment with minimal effort and at a reasonable cost. Likewise, the orchid collector can test suspect plants in the greenhouse or new acquisitions with results available in 10 to 15 minutes. The availability of such test capability may help put pressure on sellers with suspect stock, especially if their customers begin to request testing before shipment, or complain when a plant tests positive when received. However, certification to a detectable level can only be for CyMV and ORSV.

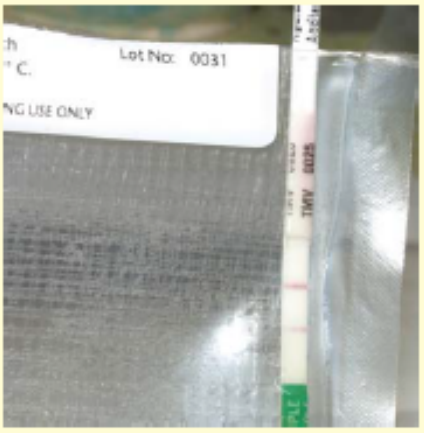
Loren Batchman is owner of Casa de las Orquideas in Solana Beach, California, and a leading hybridizer of cymbidiums and zygopetalums in the United States. He is an accredited AOS and Cymbidium Society of America judge, chair for the Pacific South — Encinitas Judging Region and a photographer for the Pacific South Judging region. 170 South Nardo Avenue, Solana Beach, California 92075 (e-mail batch@orquideas.com; Web site www.orquideas.com).

How to Use the Agdia ImmunoStrip® Test

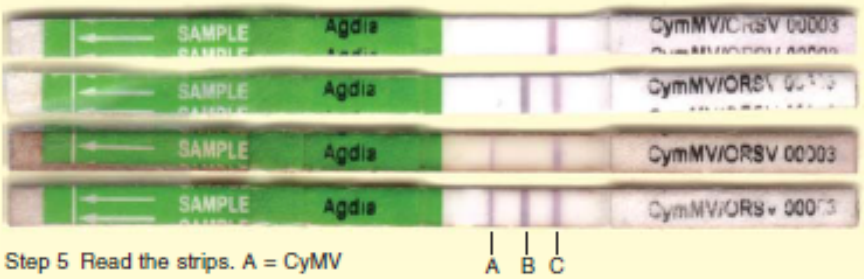
Step 1 Open the ImmunoStrip sample extraction bag.

Step 2 Place sample into the bag and crush the sample.

Step 3 Insert the test strip into the bag.



Step 4 Developing test strip.



Step 5 Read the strips. A = CyMV indicator line; B = ORSV indicator line; C = control line.

Testing Plants

While symptoms are good indicators of a viral infection, they cannot bring certainty to the diagnosis. Because of that, it is advisable to proceed with additional testing for the identification

of the causal agent of a particular symptom. One common method used in laboratories is a serological assay, namely ELISA (Enzyme-linked immunosorbent assay), which uses a specific antiserum to detect a particular virus. This test is sensitive and used often in laboratories around the world. Biological assays, transmission electron microscopy, hybridization and RTPCR, among others, are useful tools that can be used for their detection. Even without known vectors, unlike most other viruses, ORSV and CyMV are the predominant viruses around the world. This can be explained by their stability, high concentrations in infected cells and being spread mainly by contaminated tools during regular manipulation of the plants. Therefore, people working with orchids become their main transmission agents, helping their perpetuation from one plant to another and their dissemination to other plants and production areas.

Controls

It is important to remember that there is no cure for an orchid infected with ORSV or CyMV, even though efforts have been made to produce genetically engineered resistant plants. Thus, the best way to control orchid viruses is by prevention, avoiding their entrance in the growing area. This is not easy to do, particularly when infected plants are asymptomatic. Because of that, one should always buy orchids from certified producers and avoid bringing plants with symptoms home. Special attention should be given to mother plants, which ought to be guaranteed virus-free.

If viruses are already present in the area, several measures need to be taken. Infected plants should be discarded, and the suspicious ones should be isolated to prevent further dissemination of the viruses. Separating plants of different ages also helps prevent viral spread, since the older the plant is, the higher its chance of being infected. This occurs because the longer a plant stays in the production area, the more often it has been manipulated, and as it is known, ORSV and CyMV can be transmitted by handling during dividing, repotting, cutting or any other management practice.

Events Schedule:

OCTOBER 2024	
4th & 5th October 2024	Bribie Island Orchid Society (Setup & judging Thursday 3rd of October)
NOVEMBER 2024	
9th November 2024	Nambour Species Show (set up 8th)
9th November 2024	STOCQ Meeting, Hosted by Maroochydore OS, Buderim Mens Shed, 38 Advance Road, Kuluin
30th November 2024	Gympie Club Christmas Party – Amamoor Public Hall, Busby Street, Amamoor.
2025	
March 2025	15th Asia Pacific Orchid Conference & Show, Taiwan
June 2025	STOCQ meeting hosted by Bundaberg OS.
21st June 2025	Gympie OS Winter Closed Show
6th & 7th September 2025	STOCQ meeting hosted by Nambour OS in conjunction with STOCQ Orchidfest at 114 Sportsmans Parade, Bokarina
1st – 5th October 2025	Australian Orchid Conference and Show at Wiigulga Sports Complex, Woolgoolga NSW (*Orchids from the Mountains to the Sea*)

Next Meeting:

DATE: **Sunday**, 27th October 2024
ADDRESS: Kent & Sharon Bartlett's place at 6 Tailor Street, Tin Can Bay
PLANTS: Benching of plants will commence from 1.30pm – 1.45pm
JUDGING: Voting will be held prior to meeting (between 1.45pm – 2.00pm)
MEETING: Will commence at 2.00 pm

Please bring your plants, chair and a plate to share for afternoon tea.



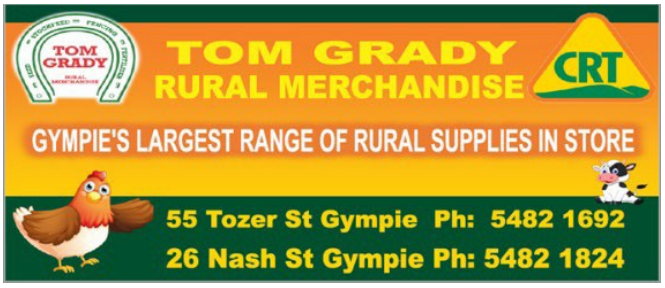
NOTE: Please think about what month you would be able to host a monthly meeting and advise Sharon Stretton to include below.

Future Club meetings	Meeting to be held at Club members residence:
30th November 2024	**Christmas Party** to be held at the Amamoor Public Hall, Busby Street, Amamoor. Club will pay for the lunch, but you will need to pay $10 refundable deposit (paid back on the actual day to ensure attendance. Arrive at 10am for activities and lunch will be at 12pm. Please contact Shirley Downing regarding RSVP'ing your attendance and to pay the $10.

Newsletter snippets

Club members are encouraged to contribute to the newsletter. Please email Sharon Stretton for inclusion (prior to the upcoming meeting, otherwise they will be included the following month). Email: sharon.m.stretton@tmr.qld.gov.au

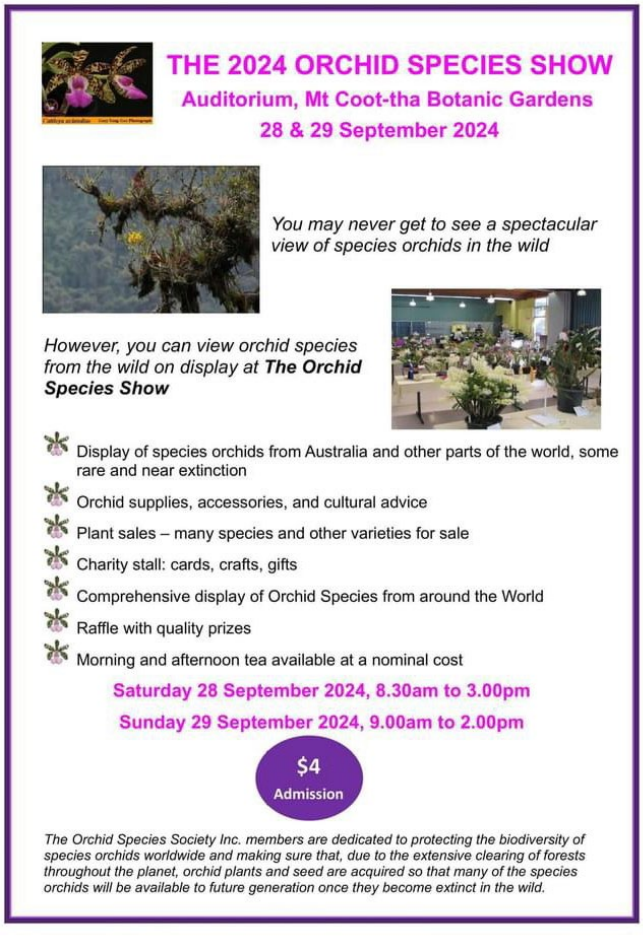
Our Sponsors: Sponsors are an important part of our Club. Their support allows us to pay the prizes we do at our Show. Please support our sponsors and let them know that we appreciate their support!



keepgrowing@rockypoint.com.au

Vendors:

ORCHIDACEOUS SUPPLIES



NAMBOUR SPECIES SHOW

Species Show

9 November 2024, Buderim Uniting Church

Our annual Species Show is open to all Orchid Societies members. Expect a great selection of orchid species on display as well as vendors, plant sales and more. Held in support of Cittamani Hospice Service, more details will be available closer to the event.