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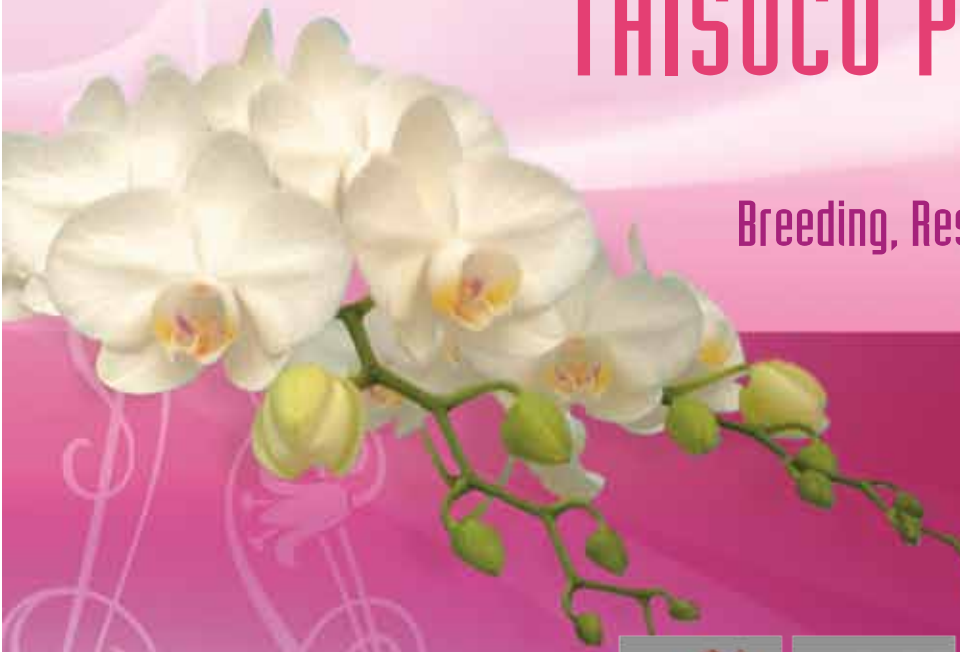
# **ICOGO**

## **BULLETIN**

**The Desirable Traits for Oncidium  
and Its Intergeneric Orchids**

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# A Message from the President

By Andy Matsui, President, International Commercial Orchid Growers Organization

ICOGO 2009 Annual Meeting March 5, 2009



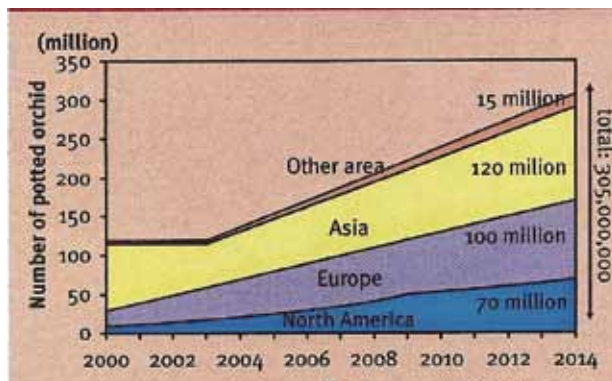
Hello, everyone. Thank you for traveling all the way from the various corners of the world.

The financial crisis triggered by the U.S. has spread throughout the world, and the consumer market is experiencing an unprecedented contraction. Consumptions of flowers, which are not daily necessities but belong to the so-called “luxury items” category, are reportedly down by 30% on average around the world. The orchid flowers we grow are also seeing a sales slump of this level in certain regions. However, consumers continue to purchase orchids more than other flowers, partly because of the longer life of an orchid and partly because the orchid is still relatively rare in the market.

The global financial panic we are facing today is like an earthquake of magnitude 9. It may take a long time—at least two to three years—before we can come out of this great period of havoc. We must be prepared to weather a considerably long period before the market for consumer products, including orchids, recovers fully.

Automobile manufacturers can cut back on their domestic production volumes in just one month if they face excess inventories. Unlike automobiles, however, orchid flowers require at least 13 months to grow, so the production volume cannot be adjusted quickly. This is one of the key challenges faced by our industry.

The chart you are now seeing is what I used in my presentation five years ago. It shows the projected orchid production numbers in different regions of the world over the 10 years until 2014. It was my belief that the consumer market in each region would be able to absorb these volumes without a problem, unless of course a large financial crisis occurred.



The world's pot orchid production is forecast to continue increasing at a steady pace to reach a total of 305 million by 2014. The world consumption of orchids exceeded US\$500 million in 2000 and the export/import value was US\$150 million (US\$127 million in cut flowers and US\$23 million in plants). The author would not be surprised if the worldwide value of orchids reached US\$1 billion or more in 2003.

However, alarmed by the random production increases in the EU zone in recent years, I predicted in 2007 that “orchid prices would plummet temporarily in June 2009.” No one took my warning seriously. But it turned out that last summer, even before the dawn of 2009, the Netherlands experienced a sharp

drop in orchid prices, albeit on a small scale. At the end of last year, the global financial panic caused orchid prices to nosedive to levels even below production costs. The sharp drop in orchid prices in the EU, which I had predicted, is now a certainty.

Currently, an estimated 120 million pots of orchid are produced in the EU annually. However, the EU zone has over 300 million highly educated and cultured people and, thanks to rapid economic growth in Eastern Europe and Russia, this market has been able to absorb production increases of 10% per annum over the years. In fact, production reportedly increased by an average of 20% over the three years since 2006. Particularly alarming is that the production percentages of other orchid species relative to Phalaenopsis orchids dropped to less than 20%, which is a major reason for the fall in Phalaenopsis orchid prices.

Greenhouses in the EU are following fixed shipping plans for the full year in pursuit of markedly higher efficiency. This blind adherence to plans is causing discrepancies with orchid demand levels. This shouldn't be a problem as long as the demand exceeds the production. However, once the production exceeds the demand it becomes a different story. In early summer, when people leave their cities for holidays and the hot summer sun begins to beat down on us, housewives lose interest in buying orchids. Still, orchid flowers continue to come into bloom in greenhouses, and all these orchid flowers that have nowhere to go are flooded into auction markets. In the US, where there is no market for orchid auctions, growers plant orchids so that fewer flowers will be produced in low seasons. As a result, the aforementioned problem is less severe in the US. One weakness of the orchid market in the Netherlands is that a supply-demand gap can easily occur.

Another problem in the EU is that the excessive focus on the Phalaenopsis orchid, which now accounts for 80% or more of the entire orchid market, has brought the orchid market to the point of saturation. This is a major hindrance. It is likely that we need to reduce the relative number of Phalaenopsis orchids to between 65% and 70%. Another concern is that 90% or more of these orchid flowers are grown in 12-cm pots and consumers can't select flower sizes. I believe this is also a major impediment that can easily cause a slump in orchid consumption.

Orchid cultivation in Japan reached its peak in the 1980s before the EU experienced the rise and fall of its own orchid-growing industry. Twenty-some years later, orchid production in Japan has dropped to nearly one-third that of its heyday, and the global financial crisis may well be the last straw. In Japan, super-size Phalaenopsis orchid species with large flowers have remained popular for the past ten years or so as a leader in the luxury gift market. However, Japanese orchid growers who had been auctioning off these Phalaenopsis orchid flowers, which accounted for 90% or more of the orchid market, could not tap any other market but the luxury gift market. Eventually, they had to lower prices through excess production. The economic slump has also caused the luxury gift market to shrink, and today about 10% of orchid growers are only just profitable in Japan. Other growers are purchasing grown seedlings from Taiwan and replanting them. They are barely surviving by relay planting.

Many orchid growers in Japan have very small planted areas, but in the peak period there were over 800 farmers growing orchids in Japan. The orchid industry, which is considered a promising sector worldwide, collapsed very easily in Japan, and we should do an in-depth analysis of why that happened.

First, the orchid cultivation industry—which should operate on a commercial production scale—could not grow its scale large enough and instead remained a niche market for gardening enthusiasts. This limitation of scale is, of course, a fatal limitation faced by all farming sectors in Japan, not just orchid cultivation. The orchid industry was trapped in this hole and could not develop into one driven on an enterprise scale.

Secondly, each orchid grower had limited money to invest, and their facilities were generally meager and lacking innovation. Accordingly, the costs of orchid production remained high and it was virtually impossible to expand the scale of production. Moreover, growing orchid flowers for sale as luxury gifts is very labor-intensive, where 75% of all labor must be focused simply on preparing flowers for shipment. This also pushes production costs much higher. Wrapping and shipping expenses are not cheap either, and commissions for auctioneers are as high as 10% of sales. Given these conditions, only a limited number of orchid growers who are located close to the consumer markets can remain profitable.

Thirdly, most orchid growers scrambled to grow premium, expensive orchid flowers by ignoring the need to develop the market for everyday orchid flowers, where stable consumption could be expected from households where 120 million people live. Due to the recession, this market has not yet been developed. Japanese households are expected to consume at least 60 million orchid pots a year. We must develop this household market as soon as possible; otherwise, the orchid industry in Japan is doomed.

Fourthly, there is a serious challenge in that, unlike the EU, there are no leaders, or businesses that handle orchid seedlings, who could lead the orchid cultivation industry. Since it doesn't have motivated leaders who are committed to developing the orchid industry into a full-scale industry, Japan only sees growers buying young plants—the most important part of orchid cultivation—from various other countries. In this situation, it's extremely difficult to grow this industry into one that is large in scale.

Next, let's turn to our industry in North America.

It is estimated that approximately 25 million orchid pots were produced in North America last year. This year, consumption is down due to the economic downturn and therefore orchid production is lower. Of this number, approximately 15 million pots are sold in California, a state with a population of 30 million people. We are satisfied with the penetration of orchids in this state. In California, however, we are also starting to see new orchid growers trashing the market through their unplanned production and low-quality products. We are saddened by this trend.

North America isn't much different from Japan in that we have no farmers growing orchid young plants, and many growers are buying the starting young plants from around the world. Particularly, imports of grown plants from Taiwan are increasing. However, these plants are extremely limited in the types, and it takes about a month to ship them in containers by the sea. This invariably places extra burden on these plants. Furthermore, mature orchids imported from Taiwan in the winter and spring

months are grown in the fall and winter in Taiwan, but very few of them are grown in a well-heated environment and many plants have their spikes cut off. These *Phalaenopsis* plants cannot be expected to produce flowers of satisfactory quality if forced to bloom soon after arrival in the United States.

This year, a Dutch propagation company was planning on building an expensive greenhouse facility covering 4.5 hectares of land near my nursery, where it would start growing orchid young plants. Orchid growers in North America have placed a great deal of expectation on this company. My company, for one, is planning to expand into the East Coast this year.

Apopka, Florida has seen an influx of approximately 60 small-scale Korean orchid growers in the past two or three years, and as of last year the region produced more than five million *Phalaenopsis* orchid flowers. However, the climate of Apopka is similar to that of Taipei, so the temperature and humidity are just too high to grow and bloom orchid stocks or produce high-quality orchid flowers. Moreover, when it comes to the sales channel, a majority of the orchid growers in Apopka are dependent upon nearby large-scale companies selling potted orchid flowers, and a majority of their orchids are those that bloom large white and red flowers. Overall, the quality is poor and the orchid flowers they grow aren't expected to turn a profit.

As I have just explained, orchid cultivation in North America is concentrated in California and Florida, with these two states accounting 60% or more of all orchid production in the country. In the vast Midwest, only two to three new orchid growers are starting to ship flowers just this year.

Alongside North America, the South American country of Brazil, which is home to *Oncidium* and other flowers species, has over 20 years of history in orchid cultivation by the Japanese and Dutch migrants. Today, approximately sixty growers are growing various types of orchids there—mainly the *Phalaenopsis* orchid, as well as *Oncidium*. I am planning an early-summer trip to Brazil in order to learn about the local orchid cultivation scene. In Central and South America, with Brazil as a focus, Argentina, Columbia, Ecuador, Costa Rica and Mexico are also expected to start or increase orchid cultivation in the near future.

The orchid industry in Thailand holds a unique place in the global orchid cultivation community. Orchid growers in Thailand were once expanding so rapidly that they nearly dominated the world with their large-scale cut *Dendrobium* flowers. However, the excess production of cut *Dendrobium* flowers and the global slump in cut flower prices caused the market to shrink. The orchid young plant industry that emerged on the back of the country's cheap but quality labor has so far failed to catch up with the technology and system the EU has, and there is still much room for improvement. The orchid young plant industries in neighboring Indonesia and Malaysia face the same situation, and a further leap is expected in these countries.

Regarding the in-flask young plant production adopted by these countries, the growers are expected to shift their production bases to other places, such as India, where even cheaper labor is available and there is a better environment for the development of new systems. In view of this, the time is ripe for in-flask young plant production. As orchid cultivation expands and market competition heats up around the world, the orchid young plant market will become subject to pressure and the EU young plant growers in particular, who are paying

substantially high wages to their employees, may have to find their next move in order to remain afloat.

Also in the Asia-Pacific region, Taiwan is focusing on large-scale operations for growing orchid young plants, mainly those of *Phalaenopsis* orchids, while China is a fast-rising competitor to Taiwan. However, both countries are producing orchid young plants to virtual markets. Consequently, they are left with only limited options in today's environment, where the orchid young plant market in the EU faces a deluge.

First, Taiwan and China should reorganize the breeding of *Phalaenopsis* orchid by correctly anticipating the direction in which the global market is heading, and thereby shift their focus to producing and breeding more promising hybrids and clones.

Secondly, the growers in these countries should completely eliminate virused stocks and develop and disseminate advanced cultivation technologies that prevent mutations due to culturing.

Thirdly, they should implement proper temperature control and build a system that allows for the shipment of *Phalaenopsis* orchids without spikes, even in the winter. This will not only solve the problem of spiking but will also help prevent the infection by *Fusarium oxysporum* through proper heating in winter, which in turn will ensure the supply of orchid plants that greatly satisfy the customers.

Fourthly, Taiwan and China must focus not only on *Phalaenopsis* orchids but also on all types of orchids. They should develop new orchid hybrids other than *Phalaenopsis* in order to help drive the orchid industry in the future, and become suppliers of all types of orchids led by these new hybrids. Otherwise, in the future, they'll be unable to remain being global orchid young plant suppliers. To that end, the best course of action left for the orchid suppliers in the two countries is to establish their own facilities in the world's key orchid cultivation markets and build an orchid production system that is closely

linked to each market based on the principle of "growing where the demand is."

The economic problem triggered by the global financial crisis will surely leave substantial scars on the global orchid market. Nothing will come from just brooding over what has already occurred. On the other hand, we must also learn from mistakes made in the past. Unless we learn from these mistakes we will not progress in the future but will only make the same mistakes again.

To learn from our mistakes, it is important to analyze from every angle what had happened. The most efficient way to verify mistakes is to involve as many people as possible in the process and verify the same things with different eyes. We should then discuss the results of verification with as many people as possible so as to draw conclusions reflecting different viewpoints.

We human beings build "groups" in various forms, and we use these "groups" as forums for verification to operate our society. We, the businesses involved in orchid cultivation, have organized a group called ICOGO. This group is intended to achieve our purpose of "making the twenty-first century the century of the orchid." This is our "verification forum."

We ask our members to make it a habit to freely discuss orchid cultivation with other ICOGO members working for the same purpose. No other organization than ICOGO on this planet is better positioned to gather information on orchid cultivation.

ICOGO members, let's work together to make this organization the true verification forum for orchid growers and related businesses throughout the world. There are still many comrades around the world who are yet to join ICOGO. Please persuade them to join ICOGO so that we can "make the twenty-first century the century of the orchid" as soon as possible.

**ICOGO**

## 2009 ICOGO Annual Meeting Held in Taiwan

The 2009 ICOGO Annual Meeting was held on March 5 in conjunction with the 2009 Taiwan International Orchid Show and Symposium. TIOS generally provided ICOGO members with two easy of hotel stay, an auditorium for half a day, and the simultaneous translation services. ICOGO President Andy Matsui made a speech about the global orchid industry and the market situation. He also offered his strategies on how to

strengthen the industry to make the orchid business more profitable. Representatives from several regions gave reports on orchid production and market conditions. ICOGO orchid display won the championship in the large landscape display category. Taiwan Orchid Growers Association has invited ICOGO to hold its 2010 annual meeting again in conjunction with 2010TIOS in early March next year.



The awarded ICOGO orchid display at 2009 TIOS.



TOGA President Tsang-Yu Lee presented the show trophy to ICOGO President Andy Matsui.

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# World Cymbidium Pot Plant Production

Andy Eastern

While it is desirable that cymbidium pot plant production greenhouses are located close to population centers, climatic requirements for successful cultivation of the genus may make this difficult. The cymbidium is nowhere near as adaptable as *Phalaenopsis* for example but does have an advantage in generally being resistant to bud drop in the “puffy bud” stage. What is starting to occur is that producers in favorable cymbidium climates will initiate spikes and then the plants are transported at that stage to smaller finishing greenhouses where the plants can be more closely placed and finished. This also enables the flowers to reach the final consumer in undamaged condition rather than bruised and nicked by the tough cymbidium leaves on a long journey.

Crop finish time has been steadily reducing with careful hybridizing. Unfortunately, cymbidiums that bloom later in the season still need at least 30 months minimum to bloom and this adds considerably to the cymbidium price when compared to *Phalaenopsis*. One of the desirable offshoots of heat-tolerant breeding has been the evolution of a class of pot plant cymbidiums that make two growth cycles each year. These can be successfully bloomed with multiple spikes at around 24 months.

Japanese hybridizers have long paid attention to the total plant concept in their pot plant cymbidiums. The genetic balance between plant habit and flower presentation is a key factor in their varietal selection process. This may be a little clouded by the use of growth inhibitors to chemically create a more compact plant and the labor-costly technique of Meikake which is quality-labor intensive. European growers are generally not interested in any flowering technique which extends the plant bench time, especially at final spacing.

In days gone by the Japanese producers could justify growing labor-intensive types like pendulous because of the relatively high market prices that these plants could achieve. Now all the price pressure is downwards and their margins have thinned perilously.

What we do see is a much broader acceptance of new colors and types that may reflect the changing use of blooming cymbidiums and different tastes amongst a younger generation of consumers. No longer is the typical Tokyo florist deluged with cup-shaped pink cymbidiums every spring.

Most other Asian cymbidium producing countries are heavily influenced by Japanese product. Korea, Taiwan and mainland China markets are dominated almost totally by Japanese-hybridized varieties. The difficulty of securing and enforcing plant patents in Asia has left the hybridizers in a difficult situation and the appearance of new and better varieties has slowed.

In Europe, cymbidium pot plant production is concentrated in The Netherlands. Floricultura makes selections under the demanding Dutch climatic conditions for local growers and other companies like Power Force supplement local varieties with Asian product that they evaluate and cull ruthlessly to find the varieties which will perform. It is possible to protect new introductions and enforcement is becoming stronger by the year. Single source supply tends to produce market problems if

growers do not buy a sufficiently wide selection and extremely fast-growing and reliable varieties like Earlisue ‘Patty’ are regularly overproduced by casual orchid growers who will use excess greenhouse capacity to take a quick crop as space allows.

Variety color evaluation is particularly important in most of Northern Europe as the plants will usually be sold under artificial lighting and some colors suffer as a result. Though a certain volume of cymbidiums is sold for special occasions like Valentines and Easter, far more will be impulse purchases at supermarkets and flower shops, so bright, appealing colors are vital.

Because many of the European varieties are produced under very short, dark, days they must be carefully screened for shelf-life and varieties that should not have passed the pre-meristem selection process quickly fall from favor in the market. Cull cut flower varieties that are sometimes dumped as young, first-bloom plants onto the market do not do the industry any credit!

A recent development in warmer areas of the world has been what is termed heat-tolerant cymbidiums. These by definition are hybrids which will initiate flower spikes satisfactorily when high sun day temperatures are as high as 32 °C (90+ °F) and night temperatures remain in the 25-26 °C (high 70’s °F). At present, it is wise to say they are a work in progress but as the hybrids become more complex, the product is improving dramatically. Generally major species in the background of the type will be *C. ensifolium* from Asia, *C. madidum* and *C. canaliculatum* from Australia and others like *C. sinense* and *C. parishii* var *Sanderac* to a lesser extent. It is very important that a broader selection of colors in the type become available as the overwhelming influence of Golden Elf ‘Sundust’ and its offspring in the type means that yellows are disproportionately represented.

Newspaper garden writers babble on about something called “Tea-Cup Cymbidiums” but the only problem is they don’t exist. No commercially viable pot plant cymbidium will bloom in a three-inch pot and few will make two spikes in a four-inch one. Growers also need to heed the words of Jan Post from Floricultura who always cautions: “make sure it’s not small plant, small price”!

Small pot plant cymbidium nurseries exist in all the cymbidium-growing areas of the world like Australia, South Africa, New Zealand and scattered throughout Central and South America. Growers from major production areas are often astonished at the high wholesale prices growers can receive for their product in these countries but volumes are low and demand could be quickly dampened by a serious increase in production.

One ongoing advantage for the cymbidium is its much lower optimal night temperature when compared to *Phalaenopsis* and even the heat-tolerant varieties will perform very satisfactorily with a 10 °C (50 °F) minimum during the low-sun season.

With better protection for originators we should see increased numbers of new and better cymbidiums released. In some cases they exist but are being held until protection from pirating can be guaranteed and in other instances, they will be bred by hybridizers who are confident that their efforts may be rewarded.

(continued on page 9)

# Desirable Traits for Oncidium Alliance From A Commercial Pot Plant Grower's Point of View

Glenn Gardner

**Flower Color:** Color is what sells these plants. Looking for vibrant, bright colors with distinct markings. Pale or muddy colors are not desirable. The flowers need to hold their color and not fade.

**Flower Size:** Generally, want medium to large size flowers. We don't really need great huge flowers. Although plants with very large flowers can be quite nice, they tend to be floppy, and can weigh down the spikes, which often leads to spikes breaking during handling and shipping. If the flowers are on the smaller side there needs to be lots of them to make a good showing. 3-7 cm is the best range.

**Flower and Spike Count:** Reasonable flower count is needed. Larger flowers can have a lower count, in the 7-10 range, while smaller flowers need to have a much higher count. Having the tendency to put 2 or more spikes per bulb is most desirable, especially with the small flowered hybrids.

**Spike Habit:** Looking for strong, generally upright spikes. Although arching spikes can be quite beautiful they are difficult to handle and ship. What we want are spikes that do not require staking until they are ready for shipping. Branching spikes, especially on the small flowered varieties, are also desirable. Distance between the pseudobulb and where the flowers start is also important. Do not want to see a lot of empty space between the plant and the flowers. Conversely, do not want the flowers to begin too close to the leaves, as these tend to get lost in the foliage. Flower spacing is also important. Want the flowers to be far enough apart so that each can be seen as an individual, but not so far apart that visually there is a lot of empty space. Additionally, don't want them so close together that they bunch up. Generally we don't want the flowers touching each other.

**Spike Height:** This is very important for plants that need to be packaged and shipped. Ideal height is around 60-70 cm (24-28 inches). Much above 75 cm (30 inches) and it is necessary to bend the spike to get it into a box, risking breakage. Much less than 60 cm (24 inch) and they are not spectacular enough to catch the customer's eye. There is a market for very large and showy spikes, but it is much smaller than the general pot plant market.

(continued from page 8)

The United State's cymbidium pot plant market is still in its infancy. Occasional bubbles of over-supply in California hide the fact that the entire eastern seaboard is chronically undersupplied. As distribution improves and finish nurseries appear, there will be a very health, even pent-up demand to satisfy.

In California it is clear that even a good variety has a rather short time at the top. The constant cry is: "What's new?" and sometimes the customer pays less attention to whether it's better. We need better yellows and reds for Chinese New Year and far more product in all colors for Mother's Day. Greens have been in

**Plant Size/Habit:** In general, looking for compact plants. Very large bulbs and very long leaves are not good for most pot plants. As with very long spikes, there is a market for larger plants with long, showy spikes, but it is small, and these types of plants cannot be reasonably shipped. They must be picked up by the local customers who get plants in open boxes. Plants with short rhizomes are desirable, as more bulbs can fit into a smaller pot. Plants with a climbing habit are the least desirable.

**Disease Resistance:** Plants that are resistant to disease of the roots, and spotting diseases of the leaves are needed. Want plants that have strong, aggressive roots, with leaves that stay clean and spot free. Plants that are susceptible to leaf spots when they get too hot or cold for short periods are not good, as these conditions are inevitable in a large growing and shipping operation.

**Shelf Life:** Longer is better. Would like to see 8 to 10 weeks, with 4 weeks being the minimum. We want plants where the spike opens from the base to the tip. Do not want plants that tend to open all, or nearly all, at once, as this shortens the shelf life, and reduces the time period of optimal salability. Also do not want spikes that open too slowly. Although this would tend to extend the shelf life, if they open too slowly there is too much of chance for the tips of the spikes to have bud drop.

**Growing/Flowering Conditions:** Generally, looking for plants that grow and flower in intermediate conditions. Plants that require very cool or very warm conditions are not as good for us as it is necessary for us to grow many different varieties mixed together in our large greenhouses. Plants that will tolerate some extremes in temperature are more desirable than those that will not. Ideally, we want plants that will flower at any time of the year. Seasonality, especially if the season is very short, is not what we are looking for. We need to have plants available in even numbers throughout the year.

**Speed of Growth:** Faster is always better. What we are looking for is plants that will flower out of flasks in 18-24 months.

**ICOGO**

*Glenn Gardner is a grower at Matsui Nursery, California, U.S.A.*

increasing demand for more than a decade but there are few varieties which are compact enough in growth. Spotted, fragrant and even garish types find steady interest and the emphasis should be on more varieties rather than more of a few variety. Compact plant size for cost-efficient transportation should be paramount in any cymbidium breeding or selection program.

**ICOGO**

*Andy Easton is a long time cymbidium breeder, California, USA*

# The Phalaenopsis Bud Mite

Since the spring of 2007, Phalaenopsis growers reported having severe bud blasting from time to time. In most incidences, flower buds would develop to 1 to 2 cm in diameter and started turning yellow and abort. The very small and tight buds did not appear to be affected by this disorder. Not all of the buds on an inflorescence would abort. Usually, from one to three buds were affected. One nursery suffered severe loss after shipping them from one state to another, resulting in unmarketable plants.

Samples of these aborted flower buds were sent to a researcher in Texas A&M University, United States for determining the cause of this severe bud abortion. There was no apparent fungal growth on any part of the aborted flower buds. In all of these aborted buds, one thing in common was that the viscidium turned black. The pollinia and the pollen cap remained healthy.

Upon examination of the pollen caps with pollinia inside it under a dissecting microscope, a single mite was discovered in some of the affected buds. However, whether it was the mite or any microorganism that caused the bud abortion remained unknown.

Later in 2007, Ya-Fong Wu determined the mite to be *Tyrophagus putrescentiae* (Schrank) in a research project that was sponsored by the Council of Agriculture, the Republic of China. Using the discolored flower buds, Wu found that in 75% of the buds, the tip of the column turned black and there were small wounds on the tips of the column in 83% of the buds examined. Up to four mite eggs were found on the tip of column and/or

under the pollen cap. Adult mites were found in only 5% of these discolored buds.

*Burkholderia gladioli* was isolated from the abscised buds. (*Burkholderia gladioli* is a species of aerobic gram-negative rod-shaped bacteria that causes disease in both humans and plants. It can also live in symbiosis with plants and fungi and is found in soil, water, the rhizosphere, and in many animals. It was formally known as *Pseudomonas marginata*.) It was found that this organism did not cause any injury on inoculated flowers when there was no wound. Flower buds showed yellowing, dehydration, and shriveling three days following wounding and inoculation with *Burkholderia gladioli*. This bacterium also infects the entire open flowers, spikes, and leaves. Infected flowers would appear water-soaked and become soft.

Wu also inoculated flower buds that were 1.5 cm in diameter and placed mites on them. Disorder symptoms started to show up in 4-5 days. Flower buds became water-soaked, turned yellow, and fell off. Mites were found in 77% of the aborted buds which also had black column tips. Following additional experiments, it was suggested that feeding by mites may have vectored *Burkholderia gladioli* into the flower tissue that in turn caused the buds to abort.

Growers who obtain their plants from others are advised to take precautions against this devastating disorder. Apply an approved miticide with good coverage to plants that are obtained from a nursery that this disorder was previously reported to avoid possible losses. So far, this mite has not been seen in flower buds of other orchids. **.ICOGO**



An aborted bud.



The darkened viscidium.



A mite inside the pollen cap.



A close view of *Tyrophagus putrescentiae*.



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## ICOGO Bulletin

The ICOGO Bulletin is published quarterly by the International Commercial Orchid Growers Organization (ICOGO) to promote the commercial production and marketing and conservation of orchids.

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# 1

## Number in Orchid substrates



 **slingerland potgrond**

Slingerland Potgrond is part of Hortimea.  
e-mail: [info@hortimea.com](mailto:info@hortimea.com)  
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ICOGO President Andy Matsui traveled to Brazil and Argentina in mid-July 2009. While in Brazil, Matsui visited many orchid growers on the outskirts of Sao Paulo.

Most of these orchid growers are of Japanese descent. Their family moved from Japan to Brazil in the 1960s and settles there. There were well over one million Japanese who immigrated to Brazil at the time.

Matsui reported that most growers grow their orchids under relatively simple facilities. Their techniques were old and lack of modern technology and information to grow the best orchids. To help these hard-working orchid producers, it was decided to hold an orchid school at Matsui Nursery under the umbrella of ICOGO to offer these growers the new technologies on growing orchids. There will be four classes held between September and November 2009 at Matsui Nursery in Salinas, California, U.S.A.

The production staff at Matsui Nursery will serve as instructors. Each class will have six to seven students, mostly the younger generation. Classes will include the propagation and growing of various orchids, such as Phalaenopsis, Dendrobium, Oncidium and intergenerics, Epidendrum and Cymbidium, as well as packaging and shipping. The school will cover growing young plants in plugs trays, medium, nutrition, light and temperature requirements, flower induction, environmental control, energy conservation, etc.

The participating students' nursery must join ICOGO membership to qualify for attending this school. In the future, the ICOGO/Matsui Orchid School may be open and available to growers in other countries to learn the modern skills of growing orchids. **ICOGO**

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### China

Kunming TongYi Biotechnology Co  
Mai Orchids  
Shanghai Dinghan Biotech Co.

### Indonesia

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Simanis Orchid Nursery

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Tailing Biotech  
Taiwan Sugar Corp.  
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### The United States of America.

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Green Circle Nursery  
Hilo Hawaiian Orchids, LLC.  
Hilo Orchid Farm  
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James McCully Orchardculture  
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Kerry's Nursery  
Lyon's International  
Malika Orchids  
Matsui Nursery  
Mid-American Growers  
Nurseryman's Exchange  
Okika Limited  
US Orchid Supplies. Inc.  
Westerlay Orchids

## New Variety List



Orchid name: Anthura Chengdu  
 Flower diameter: 8.0 cm  
 Flower count: 20  
 Plant height: 65 cm  
 Flowering season: All year  
 Offered by: Anthura B.V. (Holland)  
 Minimum volume: 2,000 plants  
 Telephone: 0031 10 529 1919  
 E-mail: [evdn@anthura.nl](mailto:evdn@anthura.nl)



Orchid name: Anthura Palermo  
 Flower diameter: 6.5 cm  
 Flower count: 22  
 Plant height: 50 cm  
 Flowering season: All year  
 Offered by: Anthura B.V.  
 Minimum volume: 2,000 plants  
 Telephone: 0031 10 529 1919  
 E-mail: [evdn@anthura.nl](mailto:evdn@anthura.nl)



Orchid name: Anthura Pompei  
 Flower diameter: 7.5 cm  
 Flower count: 30  
 Plant height: 50 cm  
 Flowering season: All year  
 Offered by: Anthura B.V.  
 Minimum volume: 2,000 plants  
 Telephone: 0031 10 529 1919  
 E-mail: [evdn@anthura.nl](mailto:evdn@anthura.nl)



Orchid name: *Dtps.* Yu Pin Burgundy  
 'YPM 5069'

Flower diameter: 6 cm  
 Flower count: 55  
 Plant height: 40 cm  
 Flowering season: All year  
 Offered by: Yu Pin Biotechnology Co.  
 Minimum volume: Inquire  
 Telephone: 886-5-226-0000 (Taiwan)  
 E-mail: [yupintw@gmail.com](mailto:yupintw@gmail.com)



Orchid name: *Dtps.* Yu Pin Burgundy  
 'YPM 5076'

Flower diameter: 6 cm  
 Flower count: 50  
 Plant height: 40 cm  
 Flowering season: All year  
 Offered by: Yu Pin Biotechnology Co.  
 Minimum volume: Inquire  
 Telephone: 886-5-226-0000  
 E-mail: [yupintw@gmail.com](mailto:yupintw@gmail.com)



Orchid name: *Dtps.* Brother Little  
 Fortune 'YPM 5208'

Flower diameter: 8 cm  
 Flower count: 20  
 Plant height: 45 cm  
 Flowering season: All year  
 Offered by: Yu Pin Biotechnology Co.  
 Minimum volume: Inquire  
 Phone number: 886-5-226-0000  
 E-mail: [yupintw@gmail.com](mailto:yupintw@gmail.com)



Orchid name: *Dtps.* Taihort Gem  
 Flower diameter: 5 cm  
 Flower count: 22-30  
 Plant height: 42-52 cm  
 Flowering season: All year  
 Offered by: Taiwan Sugar Corp.  
 Minimum volume: 1,000  
 Phone number: 886-2-684-0152  
 E-mail: [a05754@taisugar.com.tw](mailto:a05754@taisugar.com.tw)



Orchid name: *Phal.* Taihort Rosemary  
 Flower diameter: 9.5 cm  
 Flower count: 12-15  
 Plant height: 68-72 cm  
 Flowering season: All year  
 Offered by: Taiwan Sugar Corp.  
 Minimum volume: 1,000  
 Phone number: 886-2-684-0152  
 E-mail: [a05754@taisugar.com.tw](mailto:a05754@taisugar.com.tw)



Orchid name: *Dtps.* Mount Lip  
 Flower diameter: 10.5 cm  
 Flower count: 18-20  
 Plant height: 66-70 cm  
 Flowering season: All year  
 Offered by: Taiwan Sugar Corp.  
 Minimum volume: 1,000  
 Phone number: 886-2-684-0152  
 E-mail: [a05754@taisugar.com.tw](mailto:a05754@taisugar.com.tw)

# Yu Pin Biological Is An International Scale, High-Tech Producer of *Phalaenopsis* Orchids

## Our service objectives:

1. Supply flasks, small, medium, and blooming-size plants
2. Provide mericlones
3. Offer information and technical advice on the cultivation of *Phalaenopsis*



We have 133,000 m<sup>2</sup> of computerized, environmentally controlled greenhouses to regulate light, temperature, and humidity. We have more than 400 varieties of *Phalaenopsis* and reproduce 10 million mericloned plantlets in flasks per year for both domestic and overseas markets. Our overseas and domestic markets gross over 12 million plants annually. Our overseas market comprises 80% of our business with customers in Japan, Europe, USA, and Hong Kong.



We've successfully delivered more than 200 40-foot containers of *Phalaenopsis* in pots to USA and Europe by ocean freight. In carts: 20,000 pots/container ; in cartons: 22,000 pots

**Address:** No.43-2, Hsia Tanti, Pin Lin Li, Chia-yi, Taiwan

**Tel:** 886-5-2641093

**Fax:** 886-5-2658200

**Email:** [yupin.yupin@msa.hinet.net](mailto:yupin.yupin@msa.hinet.net)





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