

# GROWING AUSTRALIAN DENDROBIUMS: AN INTERVIEW WITH FRED CLARKE

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I CAN'T HELP BUT NOTICE that it's a perfect Southern California day. The sky is cloudless and deep blue; the temperature is a balmy 75°F with a gentle ocean breeze. The sun is shining as I pull into the driveway of Sunset Valley Orchids in Vista, California. I'm here to interview Fred Clarke, master hybridizer, respected orchidologist, creator of *Fredclarkeara* After Dark 'Black Pearl' FCC/AOS (one of the first "black orchids") and an all-around great guy. I don't hesitate to leave this beautiful day outside because I'm entering the greenhouse world of some fantastic orchids. Today we're talking about Fred's breeding program of Australian dendrobiums, with the specific purpose of understanding their cultural needs.

## Fred's Story

Fred's been growing orchids for exactly 40 years because this is when he got his first greenhouse. His father introduced him to John Walters, owner of Rex Foster Orchids in San Diego. John Walters loved to make hybrids and showed Fred how. In fact, Fred's first orchid hybrid was made shortly after meeting John. Fred was smitten.

When he attended his first orchid show, he bought two boxes full of cattleyas, all in flower. When he returned home, his mother was shocked that he had spent his life's savings, 300 dollars, on orchids. His retort was,

"I'm 18 years old, and I'm going to spend the rest of my life growing orchids." To this, she responded, "We'll see."

At that time, Frank Fordyce had his nursery in Oceanside in northern San Diego County. Fred met Frank the second year that he had gone to the San Diego orchid show and spoke with him about making hybrids. Fred was about 19 or 20 years old at the time. Frank took an interest in Fred, a young man talking about making orchid hybrids. Frank's plants were interesting because they gave Fred the idea of having a smaller plant with a large flower, "a small footprint with a lot of blooms" as Fred says. Most standard cattleyas in six-inch or eight-inch pots were "big things two feet tall, took up a lot of bench space, only flowered once a year and had a tendency to be pink, white, and lavender," as he saw it. Fred was looking for something different.

Fred was a hobbyist, and his awakening creative side wanted to have a new and different kind of orchid, one with different colors, different shapes, different forms. As Fred says, "I didn't want to grow my grandmother's orchid. I wanted to grow something new and different and cut my own path." Orchid hybridizing was the way he could do just that. Breeding for mini-orchids became his focus.

As Fred tells it, "Cattleyas are great and widely available, very popular, and probably the most under-



Fred Clarke among his specimen *Dendrobium speciosum* plants.



*Den. tetragonum*, one of the species used in miniaturizing large specimen plants.



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*Den. speciosum* 'Windermere' HCC/AOS

stood of the orchids in terms of growing culture. Plus, you can have cattleyas in bloom every day of the year in all different colors." Then a phenomenon started to occur in Southern California when a couple of Australian vendors came and sold their plants. Aussie dendrobiums were cold-hearty and bloomed in January through March, which is a time when there are lots of orchid shows in California. Fred's friend, Ramona Wilson,



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*Fredclarkera* After Dark 'SVO Black Pearl'



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*Den. kingianum* 'Iced Vo-Vo's Sister,' one of the species used in miniaturizing large specimen plants.



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*Den. fleckeri*, one of the species used in miniaturizing large specimen plants.



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An unregistered cross: *Den. Mem. Alicia* × *Den. speciosum* is an example of the breeding for a miniature plant.

owner of Islander Delights, a small nursery in Poway, liked Australian native orchids. After talking with her and seeing her collection, Fred realized that these were pretty special plants.

Coincidentally, during that same time, his early work in catasetums was being recognized around the world as something new and novel. The Australians wanted him to do a speaking tour in Australia and bring flasks of *Catasetinae* to sell. While he was there, he attended their orchid shows which were half-filled with Austra-



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An unregistered cross: *Den. Golden Vista* × *Den. Dunokayla* is an example of the breeding for a miniature plant.

lian dendrobiums. Some shows were dedicated solely to Aussie native plants, many of which were dendrobiums. He was impressed with how magnificent these orchids were. He says, "I was shocked. I came home thinking that the Aussie dens are the Australian's best-kept secret." His idea was to bring home these plants and start a new breeding program.

Once at home, he realized the potential in making new and different hybrids. He says, "I'm now in my 10th or 11th year. We've created a number of very sig-



©Fred Clarke

*Den. Regal Gillieston* (Peewee × Regal Affair) is an example of the breeding for bright-colored flowers.



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*Den. Tosca Starburst* (Tosca × Rutherford Starburst 'Red Wine') is an example of the breeding for bright-colored flowers.



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*Den. Brimbank Fire* (Ray's Dream × *speciosum* 'Dark Purple') is an example of the breeding for bicolor flowers.

nificant hybrids." Fred thinks these are great plants for a number of reasons. "They're not finicky. They take temperatures down to near freezing and up in the 100's in summer. They bloom in January to March for the orchid shows in California. They're fragrant. They're low energy, so, you don't have to have a heated greenhouse to grow Aussie natives. In fact, if you live in a colder area, you could set your greenhouse thermostat at 35°F (2°C), and the plants would be fine. And finally, they rebloom from the old pseudobulbs, forming magnificent specimen plants in short order."

## Culture

Fred's cultural sheet for "Growing Australian *Dendrobiums*" is published on the Sunset Valley Orchids website and contains the basics for getting started. Important cultural highlights are bulleted below:

### Watering and Fertilizing

- Keep the roots dry between waterings. A fast-draining potting mix is best.
- Fertilize weakly with every watering, about ½ teaspoon in every gallon of water.
- In summer when plants are in active growth, water more frequently or twice a week.
- During cooler months, water less frequently or every 10-12 days.
- As a rule, check the potting media for dryness before watering.

### Light, Temperature, and Air Movement

- Light levels of 2500-3500 foot candles are ideal. Use 55-65% shade cloth in winter and 65-75% shade cloth in summer. The key is a bright, sunny location where plants will get plenty of filtered light.



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*Den. Elegant Heart 'Hot Shot'* (Peewee × *speciosum*) is an example of the breeding for bicolor flowers.

- Temperature of 75-90°F (24-32°C) in summer and 45-55°F (7-13°C) in winter are ideal, however, Aussie dens are forgiving of short periods of higher or lower temperatures.
- For best culture, the growing area needs to have good air movement.

### Potting Mix and Pots

- Fred prefers the Kiwi Orchid Bark brand of New Zealand pine bark, which he sells. He believes it



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An unregistered cross: *Den. Purple Cluster* × *Den. (Aussie Charm* × Zip) 'SVO' is an example of the breeding for bicolor flowers.



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*Den. Victorian Regency 'Red Stripe'* (Jesmond Sparkler × Aussie Parade) is an example of the breeding for bicolor flowers.

An unregistered cross: *Den. Australia Rhubarb Pie* × *Den. Cobber 'SVO'* is an example of the breeding for bicolor flowers.

lasts longer, three to five years. However, other barks such as Douglas Fir are acceptable.

- His formula is three parts bark with one part perlite. For smaller pots, he uses fine bark and small perlite, in larger pots he uses medium bark and medium perlite, and pots five inches or larger take large bark and large perlite. He uses plastic pots, but he recommends clay pots in humid areas.
- Don't overpot, as the media may not completely dry between waterings as these orchids require.

#### Repotting and Dividing

- Wait until you see new root tips in spring before repotting, so you don't stress the plant and set it back.
- Use a sterile tool when cutting divisions of three to four bulbs.
- Minimize root damage; removing "all" the media is not as important as not damaging roots.

### Fred's Caveats for the Hobbyist

- Growing Aussie dendrobiums is very similar to growing cymbidiums, particularly in the summer growing months. In most parts of Australia, particularly on the eastern seaboard, it's rather wet in the summer and dry in the winter. If your area does not match these seasonal conditions, you can manipulate that by watering and fertilizing more in summer. If you are meeting the requirements for water, fertilizer, light, and temperature, it's not uncommon for the plant to mature two pseudobulbs during the summer. Those two will flower along with the other mature pseudobulbs in the fall.
- For best flowering, you want to make sure the plants get below 55°F (13°C) but above freezing for about

one month. That's important for the plants to feel the cold and the shortness of the days to initiate buds. During this cold treatment, they will dry out much slower. You need to reduce water significantly to allow the plants to dry out between waterings.

- During the winter period of January through March, keep the plants fairly dry. That means wait until you think the medium is dry, then wait a few more days to be sure it's dry, then water. In Southern California, Fred waters about every two weeks during the winter. And he doesn't use any fertilizer during this period. If you are growing in a greenhouse with warmer temperatures, use the same formula with the exception that you may be watering slightly more often than every two weeks due to the warmth and the fact that the plants may dry out faster.
- Aussie dens don't get a lot of pests. Fred says he never sees aphids or scale on his dendrobiums. "Some people say that they can get spider mites, but I've never seen them. They are fairly carefree," according to Fred.
- Aussie dens don't like to be over-potted. They like to be root-bound. There is a very short internode distance of about a half inch. A pot that has an inch of space around the perimeter is enough for three years of growth.
- "The Aussies always crack me up when they say: "Mate, your Aussie dens have to have perfect drainage," Fred laughs as he tells me. "That means well-drained. In other words, the water must drain right through, and nothing holds it back." It's always easier to add water than to have the potting mix too wet



©Fred Clarke

*Den. Midas Touch* (Avril's Gold × Yondi Tina) is an example of the breeding for yellow flowers.



©Fred Clarke

An unregistered cross: *Den. Elegant Heart* × *Den. Aussie Parade* 'Many Spots' is an example of breeding for yellow flowers with red spots.

and try to dry it out.

- Nature is an organic place. Fred believes the potting medium should have an organic component, which is bark. The perlite helps keep the mix open, so it doesn't compact over time, assuring "perfect drainage" for a well-draining potting medium.
- Fred has formulated his own fertilizer for his water conditions, as his well water has extremely poor quality. For hobbyists, he recommends matching your water quality to the type of fertilizer you use. For pure water, rainwater, or deionized water use a 15-5-15 calcium and magnesium fertilizer designed for pure water. If using tap water that has hardness to it, he recommends a 20-20-20 fertilizer. For water in between pure and hard, seek help from the local water company or farm expert. Dendrobiums are quite tolerant of less than pure water. What they really don't like is to be wet and cold in the winter.

In conclusion, I asked Fred what his goal has been in breeding Australian dendrobiums. According to Fred, a lot of the genetics in his hybrids come from *Dendrobium speciosum*, which can sometimes be a monstrous plant, two feet long, very large, and robust. He is breeding to reduce the height and breadth of the hybrids. Fortunately, the vegetative qualities of *Den. speciosum* are not dominant in its offspring. Through careful selection of plants that express a smaller stature, he has been able to breed Aussie dendrobiums that mature and flower at 12 inches. That involves the incorporation of other species like *Den. tetragonum*, *Den. kingianum* and *Den. fleckeri*, without getting too much *speciosum* in the background.

Another of his areas of interest is breeding for bright

colors. Most species are cream or light colored. He is focusing on dark, intense royal purples, bicolor flowers of purple and white, yellows, and yellows with red spots, all with a more compact footprint. Ultimately, he would "like to see them bloom and flower in a four-inch pot just like most of my cattleya breeding. We are still not quite there yet."

I was curious as to what Fred considered to be his greatest success. One way is to look at the number of American Orchid Society awards for his hybrids. By this standard, he has been quite successful. However, Fred thinks success as a hybridizer would be by achieving his breeding goals. He says, "I try to produce a plant that grows quickly, that produces flowers in an appealing array of colors with a lot of blooms on a small plant in short order. A plant that will grow well in a wide variety of environmental conditions. Each hobbyist has their own growing environment, a micro-climate different even from someone else just a few miles away. Breeding a plant that is tolerant not just in California but across the U.S. is important. For me, that's success. That's a home-run."

As I reflect on Fred's years of hybridizing, it becomes apparent that he has reduced the size of cattleyas, Catasetinae, and now dendrobiums while maintaining the size of flowers. Most hobbyists don't have a lot of space in their growing areas. It's great to have a few large, robust plants, but they're hard to repot, they take up a lot of bench space, and can be a challenge to take in for judging or put on a bring-and-brag society table. Fred's main goal is to breed plants that have a small footprint with a large flower and bloom several times a year with the potential of becoming specimens. In terms of Aussie dens, Fred has plants that have bloomed for 15 years off



The dendrobium growing area at Sunset Valley Orchids.

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the same pseudobulb.

Fred considers himself a plant artist creating something new, different, and in many ways better. "More beautiful, grander, and brighter colors" is Fred's motto. For him, "satisfaction is in the excitement of breeding something new and better. Then breeding with the best plants to further capitalize on success, continually improving your product and your art."

As I walk out of the greenhouses, I am reminded of how far that young hobbyist has come. Today, his commercial nursery is full of different types of beautiful orchids. He started with breeding mini-cattleyas. Then with the success of his cattleya breeding program, he began breeding mini-Catasetinae. With that success, he turned to something newer in this country, breeding Australian dendrobiums. With this success, who knows what will be next? What I know for sure is that for this masterful, creative hybridizer, one will come.\*

## References

Clarke, Fred. *Growing Aussie Dendrobiums* [http://www.sunsetvalleyorchids.com/htm/culture\\_aussie\\_dens.html](http://www.sunsetvalleyorchids.com/htm/culture_aussie_dens.html)

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## About the Author



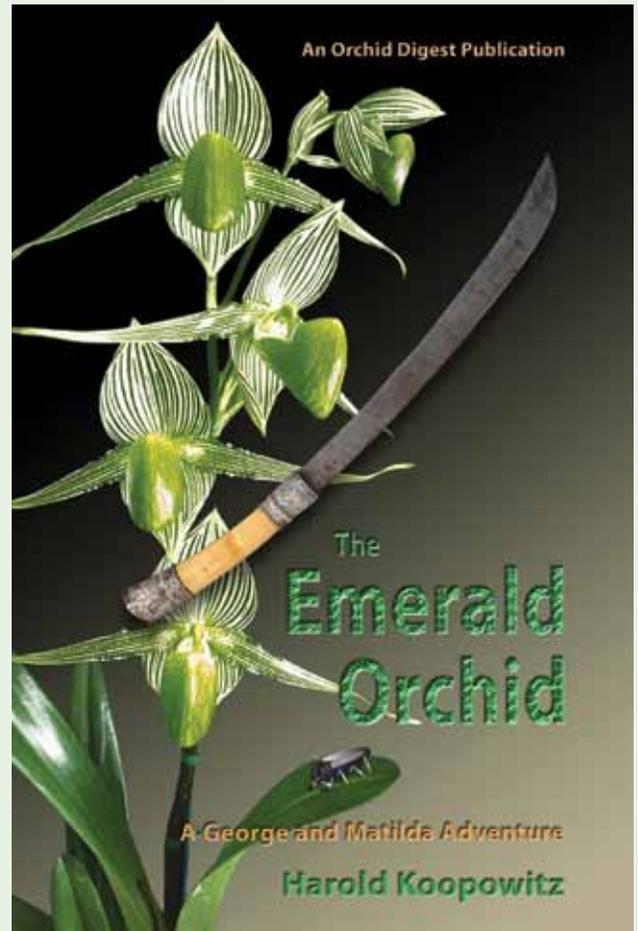
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