

DENDROBIUM SPECIOSUM - DISCUSSIONS WITH GROWERS

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Last year was an excellent one for *Dendrobium speciosum* in Melbourne and that inspired me to talk to a number of growers, both local and up north, about their culture. A number of interesting things arose and I've attempted to draw the information together in this article.

In all, I spoke to 13 growers: eight (8) in the Melbourne area (Denise & Phil Colquhoun, John Evans, Bill Franzke, Murray Harding, Stan Hill, Ken Roberts, Tony Slater and Wayne Turville); one (1) in central Gippsland (Warren Simpson); one (1) in the Sydney area (Bill Dobson) and three (3) in the mid North Coast New South Wales (David Rideout in Wauchope, Tony Blewitt and Ted Walmsley both in the Kempsey area). The questions I asked covered the number and types of speciosums people have, their experiences with these and what things work well (and from the past not so well) for them. Finally, I gauged peoples' response to the recent Clements and Jones name change proposals published in *The Orchadian* 13, No.11, pp484-497 (2002).

1. Growing experience, Composition & Size of collection.

Most had been growing speciosums for a long time (15 years plus). The one relatively new grower had been growing them for a mere 12 years! Clearly, the group represents a lot of growing experience. Most were growing all six varieties (briefly from south to north on the east coast: *D. speciosum* var. *speciosum*, *D. speciosum* var. *hillii*, *D. speciosum* var. *grandiflorum*, *D. speciosum* var. *capricornicum*, *D. speciosum* var. *curvicaule* and *D. speciosum* var. *pedunculatum*). Most also had examples of both intervarietal crosses (e.g. var. *speciosum* x var. *curvicaule*) and intravarietal crosses (e.g. var. *speciosum* 'National White' x var. *speciosum* 'Windermere'). Sizes of collections varied from five flowering plants up to about 250. With seedlings included these numbers are much larger. Nobody in the group was growing their plants under conditions of artificial heating or cooling, although most were growing under some sort of impervious cover (clear plastic sheet or rigid clear plastic) with many using shade cloth as an addition during the summer months only.

2. Flowering

The question here concerned whether some vari-

eties flowered better and/or more frequently than others. The related question was whether inter or intra varietal crosses were any better, worse or no different (i.e. was there any enhancement due to the crossing). Not surprisingly, the responses overall indicated that in Melbourne, and probably Sydney, that var. *speciosum* was the easiest to flower with var. *hillii* being a very close second. *D. speciosum* var. *grandiflorum* also responds well under Melbourne conditions but perhaps is more difficult to flower than the first two mentioned. The more northern varieties (var. *capricornicum*, var. *curvicaule* and var. *pedunculatum*) are not surprisingly harder to flower in Melbourne, particularly var. *capricornicum*. Obviously, conditions can play a big part in this as one Melbourne grower has done well with the northern ones by ensuring plants are hung up high, close to the plastic shadehouse cover where the plants experience greater warmth and light.

My limited experience would also suggest that crossing a 'hot' (var. *curvicaule* or a var. *pedunculatum*) with a 'cold' (var. *speciosum*) does improve the chances of flowering in any particular year under Melbourne conditions. However, overall, the view was that inter/intra varietal crossing did not influence the likelihood of flowering from one year to the next. The experience of one Melbourne grower was interesting; that flowerings of the varieties vary from year to year - var. *pedunculatum* flowering well in 2002, while var. *speciosum* did well in 2003. Although that experience was reported by only one grower, it would be interesting to start a log of flowerings to see how this might be true from one grower to another and from one year to the next.

3. Growth

This is another interesting area and opinions differed considerably. However, very broadly, the experience parallels that of flowering; namely that the most southern varieties (in particular var. *speciosum* and var. *hillii*) show more growth vigour than the northern forms when grown under similar conditions. Up north, though, all grow well. Forced to choose, the North Coast growers generally found that var. *curvicaule* grows the best (better than var. *speciosum* and var. *pedunculatum*). All the details, particularly the nuances of order of vigour, were hard for me to get my mind around. A com-

plicating factor is that, in Melbourne at least, plants do not necessarily grow every year. Furthermore, some plants are more vigorous than others within one variety - a statement which is true for both northern and southern growers. However, the very broad message is clear - "the further north you are, the better off you are for growth vigour across all the varieties".

On the question of whether or not there is additional growth vigour as a result of inter or intra varietal crossing, opinion was divided. Of *Dendrobium speciosum* var. the nine (9) growers who had an opinion about this four (4) thought there was extra vigour from crossing (2 Melb/2 NSW). Five (5), however, thought not (3 Melb/2 NSW). I for one think there may be, based on my limited experience, with my var. *speciosum* 'National White' and 'Windermere' which are both slow growers for me. However two crosses between these (from both a Melbourne and a North Coast source) are quite vigorous. Flowering is something else as my 'Windermere' has flowered every year for the last three years (when I acquired it). My 'National White' x 'Windermere', however, has also flowered regularly and has put on good growth as well.

4. Culture

Media. I covered media in an earlier article (ref. Bulletin July 2003 p.11) and nothing new came out of these discussions except some growers have had quite negative experiences with highly absorbent siliceous media.

Repotting. Most deal with their plants in October/November (before the new growth starts). However, one NSW grower believes that the best time for him is when the plants have just finished their new cane growth (end Jan/early Feb). The reasoning here is that following the new growth there is a further period of root growth from the new canes. This root growth can occur in the new media thus establishing the plant before winter. The benefit claimed is that the new canes, as they are growing, are less susceptible to cane rot and other disorders as the growth is supported by a well established plant.

Liming. At least two growers like applying builders' lime (e.g. Limil® - an industrial grade of calcium hydroxide) to the top of the media around their plants. One of these growers (on the North Coast) applies lime every one to two months during the growing season. For a five cane division in a 250mm (10") pot this grower applies one heaped handful of lime (scaled up or down

according to the size of the pot with seedlings getting just a broadcast of powder). All the plants are then watered thoroughly to wash away powder on the plants and to flush the powder right through the media. I cannot imagine plants experiencing anything like this high pH environment in the bush, but then again the health and vigour of this particular grower's plants is a testament that one can't argue with - I couldn't imagine plants in the bush looking this good. However, I should also say that this grower does not use much in the way of fertiliser other than an occasional application of a very dilute potassium permanganate (Condy's crystals) and magnesium sulphate heptahydrate (Epsom salts) solution once every six to eight weeks during the growth season as a foliage spray. I believe that if you used lime in this way and fed regularly with soluble fertilisers that you could wind up with clogged media due to insoluble precipitated salts. For example, solutions of both of the fertilisers I use at the recommended concentrations (Peter's Excel® Hi K/13:2.2:16.6 NPK:5.0 Ca for Oct-Jan and Horticultural Solutions Native Orchid Food® HSO-8/8:5:25 NPK for Feb-Mar) form precipitates with limewater. While this would not necessarily deprive the plant of the trace elements present in these formulations, it would greatly slow the rate at which the plants could take them up. For the grower concerned, however, magnesium sulphate does form a precipitate with limewater (magnesium hydroxide). However, the rate at which this happens is quite concentration dependent and uptake of magnesium by the plant could still occur. Potassium permanganate is unaffected by limewater and the manganese could be taken up by the plant over a long time scale.

Finally, it's important to note that the grower repots his plants every two, or at the most every three, years using new media (bark) and he uses one handful of a 50/50 mix of Blood & Bone and Hoof & Horn watering in lightly. The plants are then left dry for two to three weeks before normal watering is recommenced. In short, liming your plants in the way described above gives excellent results under one set of conditions, but careful consideration must be given to what other fertilisers may be used. The choice here, I believe, is an important part of getting the right result.

Watering. One grower from up north remarked that his var. *speciosum* plants are watered much less than his other varieties including var. *hillii*. Since he has cut water back to his var. *speciosum*

(once a week during summer) he has achieved much better results. Seems reasonable to me given that much of the var speciosum country would be south of the real monsoonal weather patterns. I didn't cross check this point with other growers.

Negative & Positive Experiences. Apart from the comment on absorbent media above, the only other negative experience that people had to relate concerned leaving plants in one lot of media longer than around three years. One or two had also had bad experiences with over-fertilising (lots of weak new growth unable to be sustained if conditions deteriorated slightly, such as absence on holidays). On the positive side, comments were made about the desirability of hanging plants or ensuring that air has easy access to both the bottom as well as the top of the pot or container. Fibre or shadecloth lined hanging baskets were seen by some as being very good in this respect. Plants on open mesh benches rather than impervious surfaces is another positive for plants in pots.

Light was another very important issue - as much as the plant can take is good. For Melbourne, if you want your plants to acclimatise to more light, then expose them to full sun from mid-April to give them time to adjust. However, full sun in summer will still damage leaves although it won't upset good flowering. Fertiliser came a distant third, although one grower who describes himself as a heavy waterer and feeder during the growth season had a contrary view.

5. Name Changes

Whatever the scientific arguments for the Clements & Jones name changes as they relate to the *Dendrobium speciosum* complex (ref *The Orchadian* 13, No.11, pp 484-497 April 2002) the willingness to adopt such changes is not there amongst most of the growers I spoke to. The responses are tabulated below:

Table Attitudes to Nomenclatural Changes as they relate to *Dendrobium speciosum* *

	In verbal communication?	In any written and/or published communication?
Do you propose referring to your plants as genus <i>Thelychiton</i> rather than <i>Dendrobium</i> ?	<ul style="list-style-type: none"> • No (12) • Depends on the particular conversation (1) 	<ul style="list-style-type: none"> • No (11) • Yes (1) • Would use traditional names, but put new name in brackets (1)
Do you propose referring to your plants in terms of the six new species names?	<ul style="list-style-type: none"> • No (12) • Depends on the particular conversation (1) 	<ul style="list-style-type: none"> • No (11) • Yes (1) • Would use varietal naming, but put new species names in brackets (1)

**Other comments:

Will use previous names until I've seen more data/been convinced through published argument (1 person). The changes will likely be adopted, but not in my lifetime (1 person)

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