



WELLINGTON

EPIFLORA

Produced by the

Wellington Epiphyllum & Hoya Society

Vol 4

No 2



EPIFLORA

Vol.4 no 2

June 1995

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Editorial

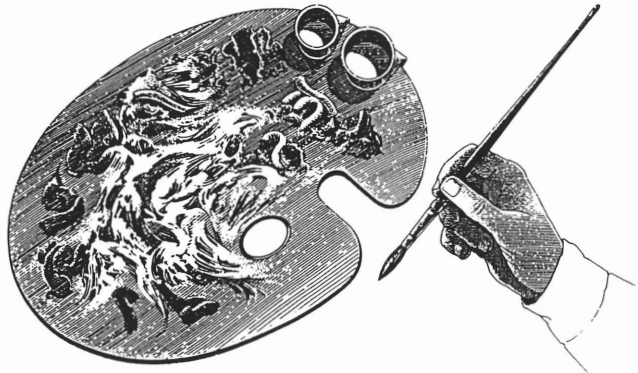
One of the advantages of editing *Epiflora* is that you get to read the copy before anyone else does. With the limited range of plants we cover and the small number of members there's always a question of how to find something new to write about and someone new to write it. Branch talks are probably the mainstay of the magazine but it's the other articles that provide the surprises.

Penny's article on "Understanding plant descriptions" this issue made me wonder about the need for some form of Dictionary of plant terms or perhaps a general plant encyclopaedia in the library. The local branch of the Cactus Society has a "Glossary of succulent plant terms" which probably has much of the information we need but perhaps someone knows of a better book for our purposes.

One of the problems we always face as editors is that of finding suitable illustrations to go with the articles. The suggestion was made at the Committee meeting the other night that we should try to build up a collection of line drawings to use both for the magazine and for talks. Perhaps there is someone in the branch with a talent for drawing they haven't told us about. Penny supplied her own illustrations from a horticultural encyclopaedia and I took the opportunity while I had it of photocopying a page of excellent *Ceropegia* drawings and some of the magazines we do get have line drawings we can copy. Up to now we've had the use of the local Cactus and Succulent Society's books but I hand them over to the new Librarian this weekend so they won't be so easily available. If anyone has good line drawings of hoyas, *Epis* etc. we'll be happy to make copies and start a file to make things easier for future editors. Often we spend almost as long finding illustrations as we do producing the magazine so any help is welcome.

The President suggested that as he'd managed to fill a whole page this time the least the editors could do was match his effort but I always admired Merv's brief and to the point editorials and am conscious of my tendency to ramble. Not of course that I'm suggesting Andrew could ever be guilty of that!

Alison & Peter Beeston



Presidential Perambulations....

There are many sad aspects to holding the “top job,” and one of the saddest is not being able to ask the President what I’m supposed to write here! I asked the Editor what to write about, and she said “write about whatever you want to write about....” (the three dots mean I left out the next bit because it was rude, and the fourth dot is a full stop). So I suppose I’ll have to just sort of ramble a bit.

Last month’s meeting saw our first venture into a special-purpose bring-and-buy table, to raise funds for the Christmas party. Thanks to those members who brought in all sorts of interesting items, and to those who bought them. We learnt a few lessons about operating such a stall—such as the folly of expecting eager punters to wait until the end of the meeting—but I am sure future committees (and future Presidents) will consider running another one next year.

Two highlights of the past couple of months for me. One was Herman’s talk on *Aporophyllum* because he makes them so interesting, the other was our import of seeds from the International Asclepiad Society. The general idea, since we were only allowed to order one packet of each variety, was to order them all and then divide the seed between members who want to try growing them on. Six of us volunteered, and there were 55 varieties available. Which left me with a terrible moral dilemma. Who would receive 10 packets, whilst the others only received 9? ($9 \times 6 = 54$). Luckily altruism is not one of my sins, so I decided to take the tenth packet. As it turned out, our protectors at the MAF Quarantine Service sent me a Biosecurity Direction that *Cynachum tetrapterus* must be destroyed or reshipped back to the sender because all species of Cynachum are prohibited. Future importers take note. SO there were only 54 packets anyway. But I got the last laugh because after I had drawn the seed packets out of the hat and sent them off to the other growers, when I came to sow my seeds there where 10 packets left. So somebody only received 8, and to them my condolences. Ha!

So far, only *Caralluma rogersii* from 80 Km north of Thabazimbi has germinated for me. Perhaps somebody with a map could tell me where that is at the next meeting? I hope we can do this seed import each year, and that way we will get some more new species circulating amongst our members. And hopefully future committees will nominate a meeting each year where growers of Asclepiad Society seed can bring their little treasures in for us all to inspect.

Andrew Flower.
President.

Branch news and notes

The committee has decided that the charge for the dinner on July 8th will be \$12.50 each - the price the caterers quoted, with the Branch covering hall hire, liquid refreshments etc. Robin will need to know final numbers as soon as possible and would appreciate payment at the next meeting. There will be entertainment provided after the meal but you will need to come along to find out what it is. Venue as last year - St Johns Hall.

Programmes to come - 8th July Where in the world would
you find Epiphyllums
12th Aug Guest speaker - Mike Oates
9th Sept. Eclectic environments for
epiphytes
14th Oct Hoyas in natural habitat
11th Nov Visits to Hutt collections

Duty Roster for preparing meeting room, afternoon tea etc.

10th June	Aynsley Taylor, Morris & Myra Tarr
8th July	Diane Totton, Joyce Walter, Andrew Flower
12th Aug	Margaret Lambie, Diane & Pat O'Neill
9th Sept.	Betty Firth, Alison & Peter Beeston
14th Oct	Levin crew - Shirley Beissel, Marjorie Hunt, Virginia Stead, Merv. K.

WANTED TO BUY

Plants or cutting of the genus *Disocactus* (excluding *macranthus* and *nelsonii*).

Jane Griffith
82 Kinghorne St
Wellington 3

04-388-1885

Wanted to beg, borrow or steal - Epiphytes vol 14 no54 May 1990. Hybridizing with *Echinopsis* by Clive Innes. If you have this contact Peter Beeston - phone / fax or pigeon post 04-3842632.

Are there any plants in the range covered by the Society which are grown purely for foliage? If so what are they?

The forgiving plants

Absent minded Annie

Most of us have, at one time or another, come home from a friend's place with a few slips of this or that. Occasionally something happens on our return that eclipses any thought of plants and days or even weeks later we find a small shrivelled twig that was our cutting, Few plants will survive long without water as cuttings.

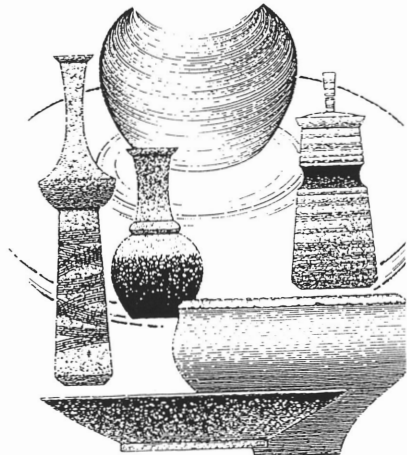
Some months ago I brought home a labelled Epiphyllum cutting. It was a variety I really liked. I put it carefully aside to callus. About a month later I went to pot several other epi cuttings but there was no sign of that particular one. After a good hunt around for it I potted up the other cuttings thinking I would find it as soon as I had finished the job. But no such luck.

At least six months later when watering a group of small pots sitting in an icecream container I noticed a new shoot apparently rising from between two pots. On further investigation what did I find but the missing cutting. Standing upright, with a new shoot growing apace and a vigorous root system growing up into the adjacent pot, it was actually doing better than those cuttings in the pots even though they had ben there longer and in supposedly better conditions.

I know they say that cuttings need air as well as water at their bases to root well but surely this was carrying things a bit far. Watering had also been sporadic at best.

I hope the society has not just made a large bulk purchase of pots, because it is clear that cuttings do better planted between, not in, pots.

There's only one small problem. How do I repot the two plants without slicing open the pot from the bottom? Perhaps pot sales are safe after all.



WELLINGTON EPIPHYLLUM AND HOYA SOCIETY

Receipts and Payments Account for the 12 months to 31 December 1994

1993 Year		\$
	RECEIPTS	
370.00	Subscriptions	625.25
236.05	Raffle Proceeds	283.05
1130.90	Sales of pots etc.	902.60
0.00	Social Function	260.00
2447.76	Convention Registrations	0.00
0.00	Convention Donations	0.00
662.75	Convention Fundraising	180.50
288.40	Convention Fund Raffle	0.00
16.04	Bank Interest	35.07
36.00	Sundry	23.25

5187.90	Total Receipts	2309.72
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	PAYMENTS	
84.00	Hire of rooms	336.00
1237.44	Purchase of pots, plants etc.	683.21
0.00	Newsletter	181.38
127.25	Raffle Prizes	15.00
36.00	Advertising	0.00
2250.36	Convention	768.65
37.25	Barbeque	639.95
105.19	Afternoon teas	30.00
76.50	Postage	258.50
6.50	Bank Fees	0.00
0.00	Display Materials	183.98
0.00	Sundry	12.80
121.95	Books	0.00
4082.44	Total Payments	3109.47

AUDIT REPORT

I have examined the books of account and received all the explanations I required. In common with other organisations of a similar nature, control of cash prior to it being recorded in the Books is limited, and there are no effective audit procedures to check the accuracy of these receipts. In my opinion these financial statements give a true and fair view of the activities of the Society under the historical cost convention.


 M B DEMPSEY ACA
 Hon. Auditor

WELLINGTON EPIPHYLLUM AND HOYA SOCIETY

Income and Expenditure Account for the 12 months to 31 December 1994

1993 Year		\$	\$
	INCOME		
320.00	Subscriptions	610.25	
108.80	Raffle Proceeds	268.05	
322.99	Profit on Sale of Pots etc.	47.53	
640.75	Convention Fund Fundraising	180.50	
288.40	Convention Fund Raffle	0.00	
16.04	Interest	35.07	
36.00	Sundry	23.25	
2447.76	Convention Registrations	0.00	
<u>4180.74</u>	Total Income		<u>1164.65</u>
	EXPENDITURE		
84.00	Donation for use of room	336.00	
0.00	Display Materials	37.13	
0.00	Newsletter	52.00	
0.00	Social Function	379.95	
2250.36	Convention Expenses	768.65	
37.25	Barbeque	0.00	
105.19	Afternoon teas	30.00	
76.50	Postage	258.50	
36.00	Advertising	0.00	
0.00	Sundry	15.80	
0.00	Depreciation	78.95	
6.50	Bank Fees	0.00	
<u>2595.80</u>	Total Expenditure		<u>1956.98</u>
1584.94	Excess of Income over Expenditure		<u>(792.33)</u>

Balance Sheet as at 31 December 1994

1993 Year		\$	\$
	ASSETS		
3.00	Cash on Hand	0.00	
2674.25	Cash at Bank	1874.50	
0.00	Debtors	0.00	
943.05	Trading Stocks	771.19	
0.00	Stationery	129.38	2775.07
0.00	Display Materials	146.85	
121.95	Books	121.95	268.80
	Less Accumulated Depreciation	(78.95)	189.85
<u>3742.25</u>	Total Assets		<u>2964.92</u>
	Represented by		
225.00	Subscriptions in Advance		240.00
	Convention Fund		
1464.50	Opening Balance	0.00	
0.00	Donations	0.00	
(1,464.50)	Transfer (to)/from Accumulated Fund	0.00	
0.00	Closing Balance as at 31 December 1994		0.00
	Accumulated Fund		
467.81	Opening Balance	3517.25	
1584.94	Excess of Income over Expenditure	(792.33)	
1,464.50	Transfer (to)/from Convention Fund	0.00	
<u>3517.25</u>	Closing Balance as at 31 December 1994		<u>2724.92</u>
<u>3742.25</u>			<u>2964.92</u>

APOROPHYLLUMS

Herman Kortink

Harry Johnson of Paramount Hybrid fame, breeder of the free, large flowering cultivars, crossings with *Echinopsis*, *Trichocereus*, *Lobivias* etc. well known to fanciers who grow desert type cacti first offered *Aporophyllum* crosses as early as 1955. He made these between *Aporocactus* and the well known *Epiphyllum* (*Phyllocactus horridus*. hort). Harry predicted a bright future for these plants and how right he was. There would hardly a cactus collection, be it *Epiphyllum* or desert cactus, not including one or two of these plants.

"Halito" (*Ap. flagriformis* x *Bambi*) and "Lawrence" (*Aporocactus* x *Valencia*) would start it off. "Bambi" is not known to me and appears not to be in New Zealand collections. In the following years European crosses were created, in England, by Binns, Barber and Clive Innes. Eckhard Meyer thinks there would be over 250 cultivars. This figure could easily be underestimated as he lists nearly 300 names in his checklist, not including a number of breeders I am personally aware of who are actively breeding these plants, but the number of distinctly different flowers would be far less in my opinion as a large number of crosses are close or nearly identical.

An exciting breakthrough was made by Des Ellery of Rossmore N.S.W., Australia by producing the first pure white flower in 1993. He called it *Aporophyllum* "Iceberg" and some of its sister seedlings are worthy of attention also. Eckhard Meyer doubts doubts however whether the cross has been made with *Aporocactus flagriformis* and *Heliocereus speciosus*. He claims that these combinations always result in red to crimson flowered cultivars and speculates if perhaps the albino form *Heliocereus speciosus* fa *Amecamensis* was used instead. No doubt we will get some comment on this in due course from the breeder. On this assumption one would assume that *Aporocactus Flagelliformis* and *Heliocereus speciosus*, both pure species, would give reasonably predictable results if used as these crosses have been made many times before.

Harry Johnson did not know what turmoil his creation would cause internationally. In regard of the Code of Botanical Rules, ratified in Utrecht, Holland in 1983 the notogeneric name *Aporophyllum* (Johnson) is not legitimate. A lengthy explanation could be given why it conflicts firstly in connection with article H.6.3 but I don't think any of our readers would be interested in a dry botanical exercise but it does conflict. In short, for a bigeneric hybrid name to be valid both parental lineages must be known. This is obviously not the case here as one of the generic components of this cultivar is an *Epicactus*, hybrids themselves, which

contain an incredibly complex gene mix, and to complicate matters even further a conservative number would be well in excess of 10.000 and numbers are growing by the day. A further breach was to article 29.4. of the I.C .B.N. 1988 which said that "botanically Aporophyllums did not exist" as the name was not legitimate. We will learn later what nonsense that is.

Rowley introduced a somewhat similar name Aporopiphyllum for generic crosses referring specifically to the hybrid Aporocactus flagriformis x Epiphyllum crenatum created by Mundt in Berlin in 1915. This hybrid which remained the only representative of this notogenus became moderately known as Cereus Freiburgensis. This cultivar unfortunately has largely vanished in the turmoil of World War 2 (Eckhardt Meyer) and he states further in his article "I shall henceforth refer to all hybrids between Aporocactus and Epiphyllum to Aporopiphyllum" and here is where the nonsense comes in. He goes on to say "contrary to all nomenclature rules the useful name Aporophyllum has impressively prevailed in the trade and has been recognised by fanciers the world over since its inception in 1955".

As early as 1966 Hunt added to the confusion by using Aporophyllum for the hybrid that Rowley later named x Aporopiphyllum adding in place of his name the abbreviation "hort". Eckhardt Meyer no doubt had in mind to clear up confusion or at least limit it.

Apoophyllum then includes besides Johnson's creations a number of intergeneric (interspecific) hybrids of Aporocactus and also the descendants of several separately described Notogenera and the variously crossed descendants but not those hybrids which have resulted from crosses between Echinopsis, Trichocereus, Lobivia with markedly different stems and flowers - the famous Johnson's "Paramount hybrids" for instance. The name Aporophyllum will continue to be used as the rules simply cannot change popular use. The same thing has happened to the desert cactus Stenocactus. The rules would have it that priority should be given to Echinofossulocactus, a long and cumbersome name. I frankly do not know of any fancier using that name and I personally have never changed the name on my plant labels. The name Epiphyllum for what used to be called Phylocactus is mainly used in Anglo-Saxon countries and the name Phylocactus is still widely used in Europe, especially in Germany and the low countries.

Disapora "brilliant", another of Harry Johnson's creations is a cross between Disocactus (formerly Chiapasia) and an Aporocactus. The Disocactus was probably Disocactus Eichlamii. According to E. Meyer this cultivar flowers like a typical Aporocactus and it is claimed that a cross in which a species or intergeneric hybrid of Aporocactus has

served as a seed parent will mostly produce x Aporocactus hybrids in the F1 generation and this is often true also for the F2 generation and even after recrossing with Epicactus.

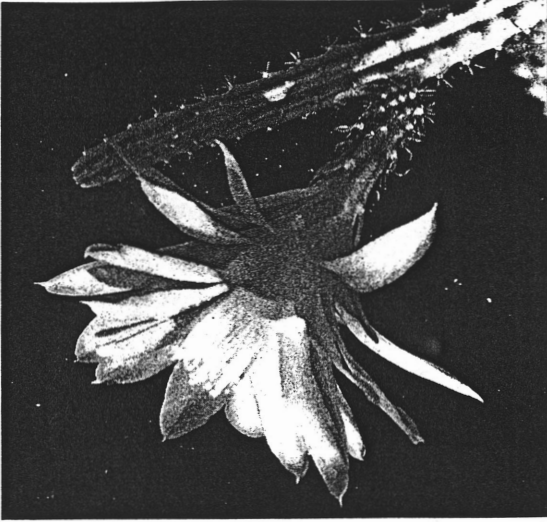
This proves that Aporocactus characteristics are genetically dominant. This of course is very important for future breeding programmes as there is a close relationship generally between minihybrids and Aporophyllum. This is demonstrated by the flowers which are mostly similar in size, form, colour and duration. The size is generally also 5-10cm more or less.

I wish to conclude my introduction for the purpose of this programme by stating that a yellow flower colour is still missing and a lot of breeders are quietly working away at it including yours truly. A pure white flowering plant was added by Des Ellery only last year. It took 6-7 years after pollination and the yellow form could also take that long or be with us in the southern spring. Who knows! It should be pointed out that breeding programmes can be planned and given direction but in no way can it be predicted what generic mix will come together and what the physical end result will be. How exciting! - as nothing can be more boring than predictable results.

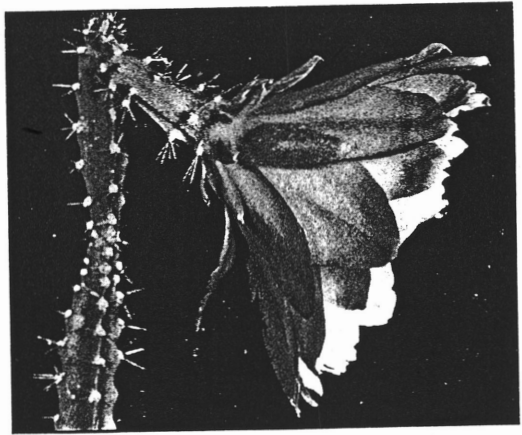
The main problem with backyard breeders like myself will eventually be the availability of sufficient space as every seedling will have to be grown on to flowering size to be able to select the plants suitable for further breeding. This could amount to hundreds of seedlings. A retired overseas nurseryman on a visit recently, viewing the hundreds of seedlings I have growing in various stages remarked "You will have to live to be a 100 to see the results of these." He could be right, but I will give it a damn good try, hoping for an early break. It certainly won't stop me from working on them and trying to complete my programme.

Anyone interested in Aporophyllums should read Eckhard Meyer's 21 page article and checklist, published in Haseltonia no 2-1994. It makes for fascinating reading and it is certainly the first substantial researched article on Aporophyllums I have ever read. The checklist gives information on the breeders and clears up some of the mystery and gives more meaning to the plant's name. It is important that the intending breeder starts with writing down important details about their cultivars so that if the crossing is worth propagating this can be recorded in a future publication on Aporophyllums. This is long overdue in my opinion and would eliminate a lot of repeat crossings which have no value whatever and are a waste of time and effort.

Ref. Aporophyllums by Eckhard Meyer in Haseltonia no.2 1994.



Aporocactus at first glance resembles *Heliocereus*
and should hybridize with *Epiphyllums*.



Heliocereus speciosus imparts the short tube and
red colorations to hybrids.

Winter in Wellington, Summer in Los Angeles

Autumn and winter are the seasons that are the least popular for Epiphyllum growers as there is so much work to be done in the shadehouse - pruning each plant, repotting some, checking for that elusive mealy bug and providing each plant with a small quantity of slow release fertiliser. All time consuming work which seems to be never-ending and certainly bears much contemplation before the task is actually commenced.

But it is at this time of year that we are reminded of the friendships which have grown as result of our enthusiasm for Epiphytes. Friendships especially with those in the Northern Hemisphere who, as we move into the colder months, these folk are enjoying longer days and warmer temperatures and as a result it is flowering time for them.

Especially we thank Dick Kohlschreiber of the South Bay Epiphyllum Society for his encouragement and enthusiasm. Dick is the person you need to thank for the production of the extremely informative newsletter which the Club receives from South Bay in Los Angeles. It is Dick who single-handedly writes the newsletter - an amazingly dedicated task especially bearing in mind that South Bay produces a newsletter monthly.

Roy and I struck up a friendship with Dick when three years ago we stopped by in Los Angeles en route to England and at Dick's invitation enjoyed his hospitality. This is a friendship which has flourished since and we know will continue for the rest of our lives with our common love of Epiphytes.

Each month when Dick sends the South Bay newsletter he includes a letter to us giving details of his activities over the month. In the most recent letter Dick speaks of preparing for the annual South Bay Epiphyllum Show and Sale. Having read about these shows for the past three years in their newsletter it definitely sounds to be a tremendous show and competitive display of Epiphyllums. Dick talked of pricing about 800 pots in which he had grown rooted epiphyllum cuttings - we are talking about a size of organisation that can only leave us with our mouths wide open!

Dick lives within a relatively short distance of the main growers of epiphyllums in America and he himself has a most impressive collection of epiphyllums and other epiphytes, many of which would make the majority of us green with envy! It must be said that the warm winters and hot summers of California are ideal for the growing of these plants and many of those growing outdoors there would barely cope in a shadehouse or glasshouse here in Wellington.

For those of you who are into hybridising it is to Dick that you write when you are ready to have your new hybrid registered with the Epiphyllum Society of America.

Thank you Dick for your inspiration, enthusiasm and friendship. Having recently retired from your position as a veterinary surgeon we wish you a long and very happy retirement. A retirement we realise will not see you sat at home wondering what will do but will probably see you even more involved with the South Bay Botanic Garden and with your passions for epiphytes and dahlias.

Jane Griffith

Natural sprays

To rid plants of aphids etc.

3 red peppers
garlic (whole bulb)
3 onions

Mix in food processor. Add 1 inch water. Stand overnight. Next day strain off fluid and add 4.5 litres water.

Another spray for the same purpose

3 cloves garlic
1 onion
33.3 percent packet of chilli powder
250 mls water

Bring all ingredients to the boil, simmer 20 mins, cool and strain. Grated sunlight soap may be added to help make the solution stick to the leaves. This is a concentrated solution and will need to be diluted before spraying

Natural aphic control

Phacelia - tansy leaf. Buy a packet of seed.

Understanding plant descriptions

Penny Luckens

You have just received a plant. It has a label but you want to check it out in your reference book (or the one in the library) and find this short description which leaves you somewhat baffled.

Dischidia benghalensis Hooker, J.D. (1882)

Stems often matted, pale green about 3mm thick. Leaves in distant pairs, subsessile, 25-50mm wide, obtuse acute or apiculate, very fleshy. Flowers minute, 2-3 in umbel. Corolla 3mm long, yellowish white, tube globose, throat glabrous. Follicules 38-75mm, slender, straight, acuminate, pericarp thin. India Malaya.

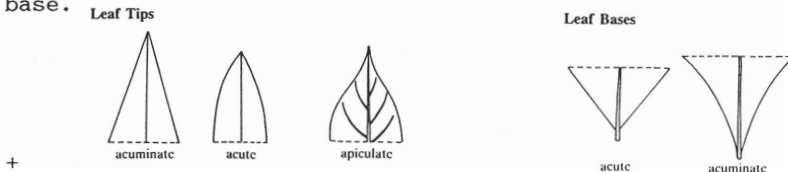
It's a bit like a foreigner looking at the "houses for sale or rent" column in the local paper. It needs some interpreting.

Remember that the description probably applies to the plant as it grows in the wild.

"Stems often matted" means that it is an untangleable confusion of stems if left to itself so you may want to train it on a support such as one of Morris's rings to stop it snarling up all nearby plants. "Leaves in distant pairs" - each pair of leaves is a long way down the stem from the next pair - a single stem of it up a wire won't give much of a display.

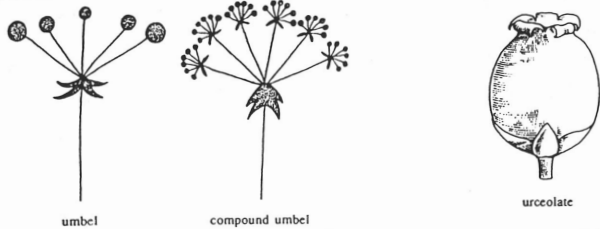
"Subsessile" Sessile means that the leaf sits directly on the main stem without a leaf stem (petiole) of its own. Sub as a prefix means somewhat, slightly or rather. In other words the describer felt that that the leaves didn't have a definite stem of their own but a few looked as if they might have the beginnings of a stem.

"obtuse, acute or apiculate" refers to the shape of the leaf tip although it could also refer to the shape of the leaf base.

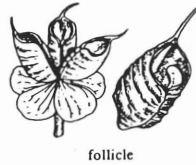


"2-3 in umbel" . An umbel is a flat or rounded group of flowers with all their individual stems (peduncles) rising from the same point at the tip of the main stem. "corolla"

the part of the flower formed by the petals, either as separate petals (free) or in the form of a tube made up of petals that are joined. "globose" spherical - like a sphere or globe - or close to this shape, sometimes called "urceolate". "glabrous" means smooth or hairless.



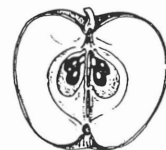
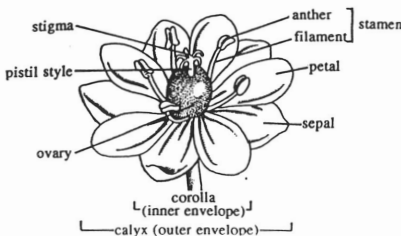
"follicles" a follicle is a dry fruit formed from all or one section of the reproductive structure (carpel), including the stigma (where the pollen is received), the style (the part joining the receptive surface to the ovary with the egg cell or cells) and the ovary. A follicle splits along one side (the inner side) to release the seed or seeds. "follicular" and "folliculate" refer to plants bearing follicles - "cule" is a diminutive suffix - a "follicule" is a small follicle.



"accuminate" refers to the shape of the follicle tip. "pericarp" the wall of the ripened ovary -the fruit. 'fruit' in botany is the ripened ovary containing the seeds. The term is often used to include the associated fleshy parts of the receptacle - the part of the flower that the ovary sits on or in, which may enlarge greatly as the seeds mature and the fruits ripen.

In an apple the seeds are in 5 separate parts which open on the inner sides to form a star shaped cavity when you cut an apple across. The part you eat is the fleshy ovary wall. At the bottom you may still be able to see the five sepals which protected the developing petals in the flower bud, and the remains of the stamens and the pistil.

Parts of the flower



HOYAS

by Morris Tarr

The mention of Hoyas to the average person brings to mind the vision of a vine type plant covered with flowers, creeping and crawling up the side of a wall or trellis fence, but not so, a great percentage of Hoyas can be grown with pleasing results as basket or hanging down plants.

These type of plants also take up a lot less room, so therefore you can add a lot more to your collection. Some of the more attractive and unusual ones that I would recommend I have listed here, starting with the smallest.

H. bilobata.. This plant has small neat roundish leaves about 20mm in size, with the edges turning red in warmer conditions. It has minute red flowers which look like fuzzy balls with orange coronas, the entire umbel being only about 13mm across. An added bonus is its long flowering season.

H. tsangii.. This plant is very similar to *H. bilobata*, but the leaves are slightly larger, blue/green with dark red edges. The flowers are also larger red in colour with red and yellow coronas.

H. serpens.. I find this one very easy to flower, some people do seem to have trouble. It does not like bright light or too much heat, but plenty of water and feed in the flowering season. It can also be grown on a piece of punga or tree fern. The leaves are deep green and round, a little smaller than a 5 cent piece. The flowers are very much larger than the leaves, extremely fuzzy, cream/green in colour. A very dainty plant.

H. eitapensis.. The leaves on this plant are olive green about 5cm, it is a rather small growing type, with beautiful pure white flowers and yellow centres, around 20 per umbel.

H. diptera.. Bright green, shiny, succulent oval shaped leaves make this plant quite attractive. A mass of umbels with flowers which open green, then turn yellow, the centre is rose pink. Very nice indeed.

H. sp.F.484.. With leaves also a nice shiny green, the same size and shape as *H. diptera* but very much thinner. This plant has lovely small furry white flowers, with a shade of purple under a yellow corona.

H. schneeii.. A very rampant growing plant, needs trimming now and again. Leaves are shiny and moderately large. The flowers are white, cup shaped 1.5cm and about 10 per umbel.

H. lacunosa.. Another free flowering plant, never seems to stop, is in flower for at least 8 months of the year. Leaves are small neat dark green. The flowers are small, white and very fuzzy, with a yellow centre. One of the main features of this plant is its beautiful perfume. A real must for your collection.

H. bella.. A well known and popular plant, can grow quite large and bushy, forms a beautiful cascade of small lance shaped leaves, and masses of lovely perfumed medium sized white flowers, with mauve coronas.

H. paxtonii.. This is a variety of *H. bella*, the leaves are longer, diamond shaped with the edges slightly wavy, the flowers are pure white with a deep red corona, also perfumed.

H. lanceolata.. Another similar plant to *H. bella*, but the leaves are a little smaller, lance shaped and slightly crinkled, but the growth is very much more pendent. The flowers again are much like *H. bella*, except that the corona is a very pale mauve, also has that lovely perfume.

H. linearis..

H. polyneura..

Here I have saved the last two plants, for what I think are the most unusual, and desirable, to have in any collection.

Firstly *H. linearis*, what can I say about this plant, nearly everyone on first seeing it cannot believe that it is really a hoyo. The blue/green linear rolled leaves 3mm in diam. by 50-70mm long, are carried on string like stems which hang down like a great beard a metre long. It is when it flowers that there is no denying, that this is indeed a Hoyoy. My plant this year was a mass of white flowers with lemon coronas. The umbels hanging from the end of each branch.

Often referred to as the "Fish Tail" hoyo *H. polyneura* is definitely unusual, and a plant that everyone should have.

The leaves which are medium-green with dark veins, grow flat in pairs, (like a fishes tail) on arching pendent branches, each mature leaf being 100mm long and about 50mm wide in the middle.

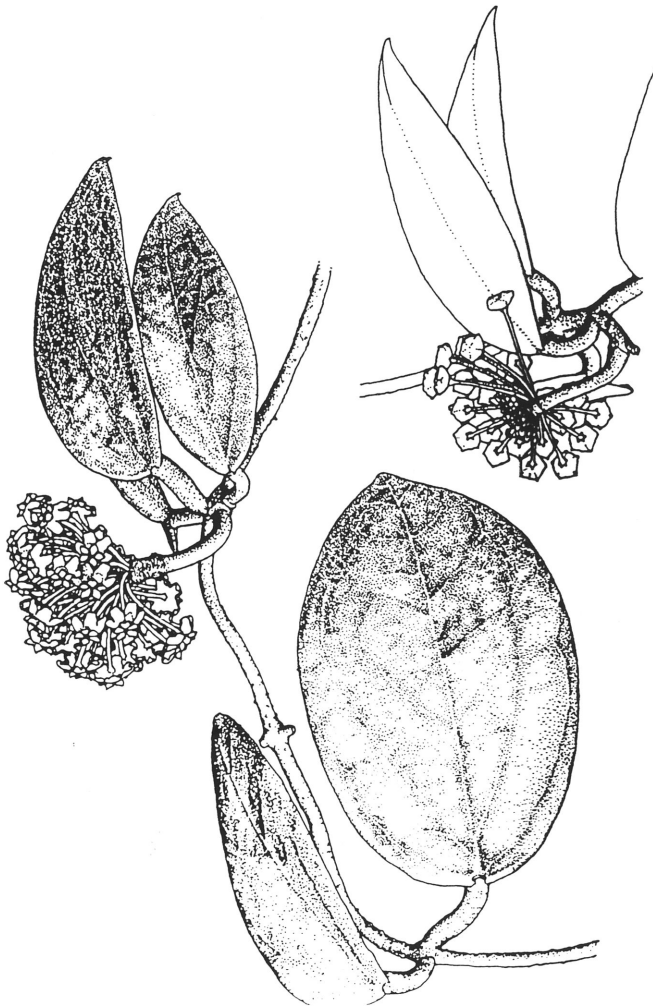
Eleven flowers form underneath each paired leaf, and all are carried on their own small stem, with no spur or peduncle as such. They are reflexed, white/cream in colour with dark red coronas.

I tried for four years to get a flower on this plant, (I should say the mother of the one I have now) but with no success, the flowers would start and then abort.

But alas, this season with my new two year old plant, I was rewarded with an abundance of flowers from nearly every pair of leaves. To achieve this I moved the plant to a cool, low light area and hung it low down, about bench height in my corrugated plastic roofed shade house. After it came into flower I then moved it up much higher, so that one could view the beautiful flowers which stayed out for about 3 weeks.

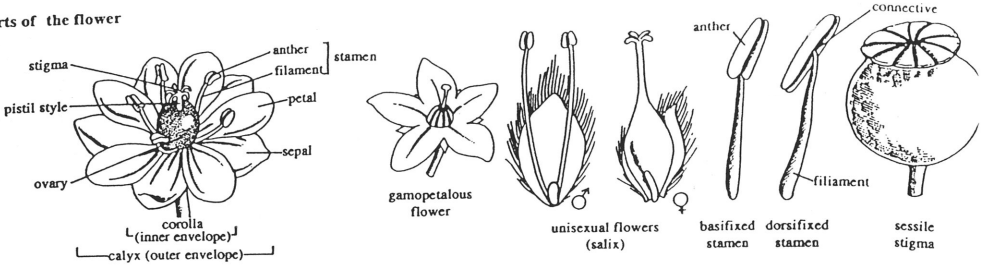
I find that this plant likes conditions very much the same as *H. serpens*, with plenty of water and liquid fertilizer, (I generally use "Phostrogen"), in the growing season.

I do hope that having read this, those of you members who do not have any of these wonderful basket type plants, may now consider obtaining some, and getting the same enjoyment from them as I do...

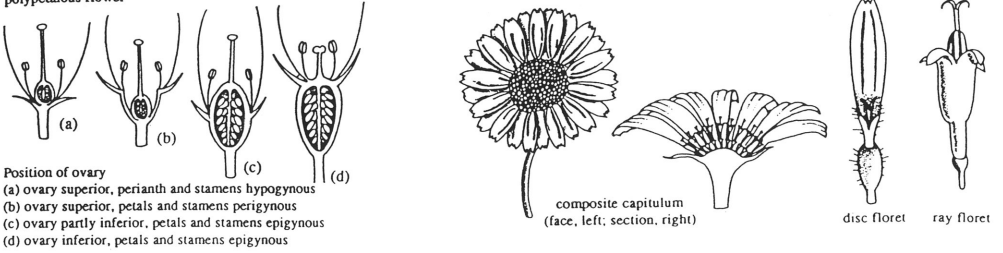


FLOWER FORMS AND ARRANGEMENTS

Parts of the flower



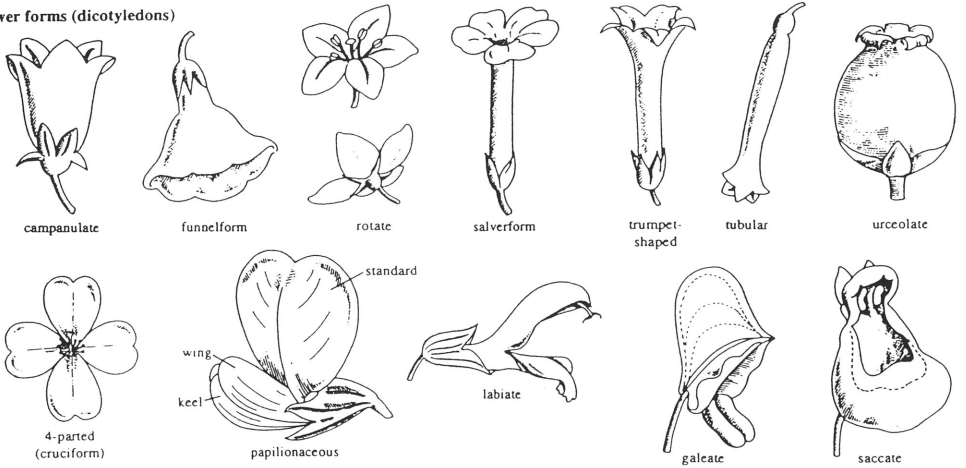
polypetalous flower



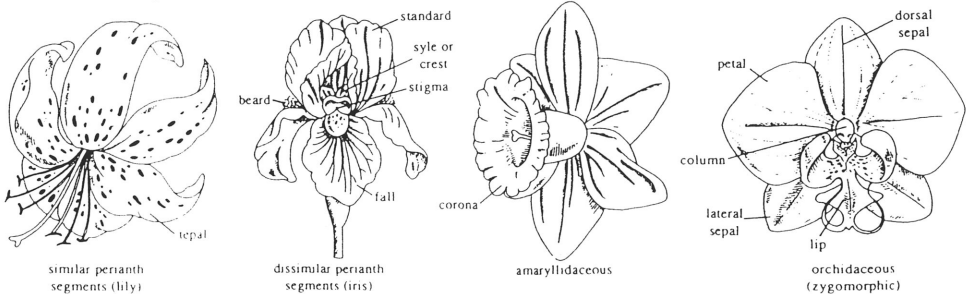
Position of ovary

- (a) ovary superior, perianth and stamens hypogynous
- (b) ovary superior, petals and stamens perigynous
- (c) ovary partly inferior, petals and stamens epigynous
- (d) ovary inferior, petals and stamens epigynous

Flower forms (dicotyledons)

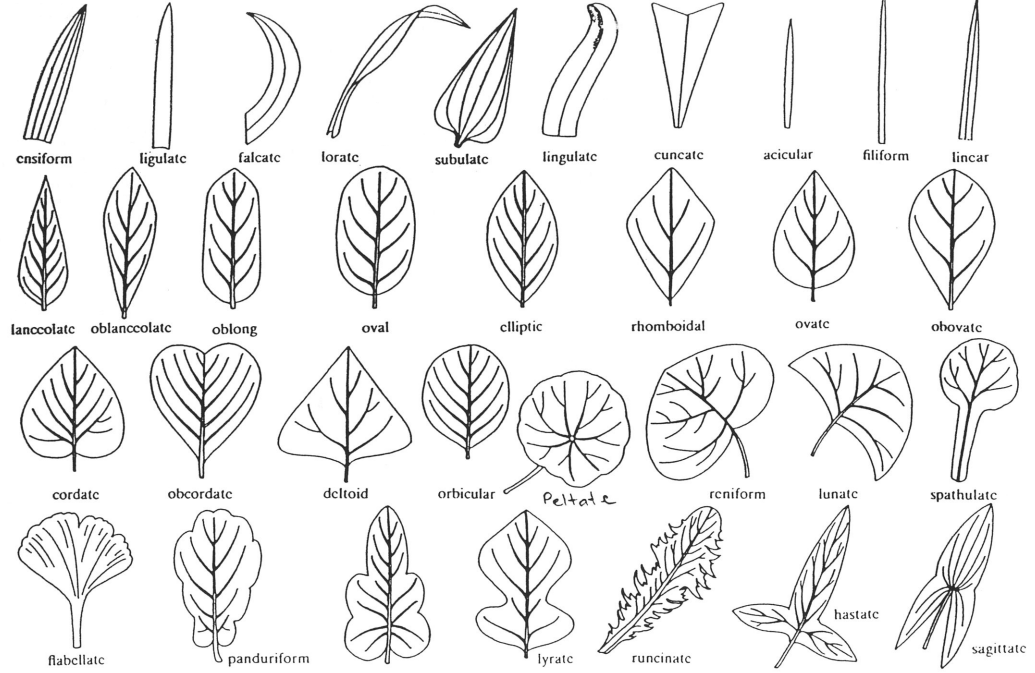


Flower forms (monocotyledons)

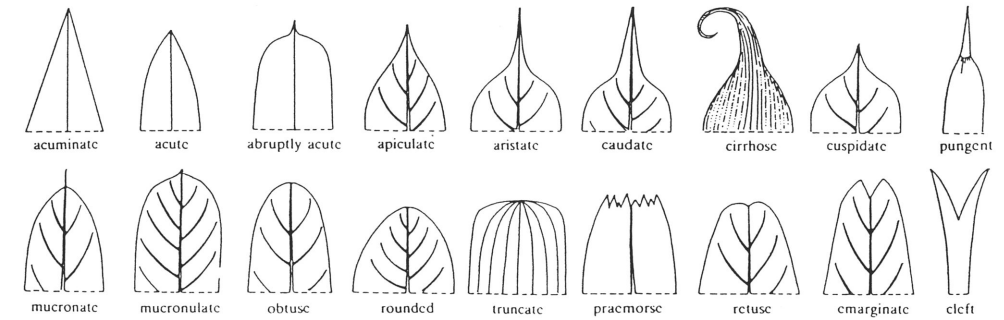


LEAF SHAPES

Whole Leaves



Leaf Tips



Leaf Bases

