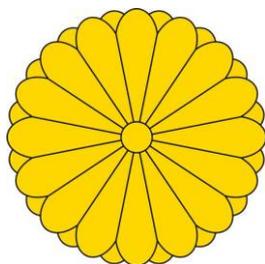


The Very Excellent and Distinguished



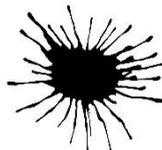
WESTERN AUSTRALIAN



CHRYSANTHEMUM

"the golden flower and queen of the autumn"

SOCIETY



January - February 2023

President's Notes

Happy New Year. I hope that it will be a good one for you, your loved ones and your plants. The weather has been reasonably kind to our plants so far this season apart from the run of 35 degree days prior to Christmas. Hopefully you had your plants into the ground or final large pots prior to then. I had quite a few spare plants in 100mm and 140mm pots and they pretty much stopped growing through that period and are just starting to grow again now. I am thinking about further torturing them and then making some entries in the bonsai classes!

All is looking good for the upcoming show with Hawaiian continuing to support us. The Australian Championship is part of the show in 2023 and has the same format as the Hawaiian Forrestfield Championship. That is, five blooms with one from each of Exhibition (Sections 1 & 2), Decorative (Sections 3, 4 & 5), Anemone (Section 6), Single (Section 7) and Fantasy (Section 10 Spider and Quill). Other sections of the show will be the same as last year and there are trophies and prize money available to the successful exhibitors. Entries for most classes are open to all, although, with the dissolution of most general interest horticultural groups a long time ago, we rarely see any non-members exhibit. The Show Schedules for the Australian and Western Australian Championships and the WACS Show will be available on our website soon and will also be published on our Facebook page. The links to these sites are on the last page of our newsletter.

We have home opens in March at Lina's and my home in March and at the home of Michael and Judy Drake-Brockman in April. Hopefully our plants will be in good order but if not then you can learn from our mistakes. Please bring along a small plate of something for afternoon tea to help with the gaieties.

I look forward to seeing you all and hopefully sooner than I see my flowers.

Cultural Notes

Looking back on the January - February 2020 Notes I found the following introductory remarks. Nothing much has changed in the last three years. So -

I hope that your plants are, like those of George Hayman one hundred years ago, "advancing in their regular perfection under the evidence of (your) master production touch". If not, then contact one of our esteemed mentors for assistance.

With any amount of luck your plants are now all settled in their final pots. We have already had some hot days and there are many more to come. Make sure that you do not allow your pot plants to dry out as this combined with a scorcher will do irreparable damage to the plants. On the other hand do not be too heavy

handed with the water either, as a persistently sodden compost will prevent the roots from growing and functioning efficiently. It may also lead to root death due to fungal infections in the pots. On very hot days it is a good idea to give the leaves a spray with the hose to produce some evaporative cooling. Many people worry that water on the leaves will lead to sunburn but experience has shown that this seldom occurs.

I came across these notes written by two time Australian Champion, the late Roy Shilling, published in the 2012 January - February newsletter.

Your plants should be in 10" pots growing strongly and tied to a short stake. They should be stopped in January, the big ones first starting early in the month, most of the others all finished by the 20th of the month, but you should keep records. When the laterals are long enough they should have their own stake, but don't bunch them in the middle of the pot, space them right up around the edge. Think of how big the flowers are going to be (the big ones as big as your head you hope), if the spiders touch they will tangle and will take a lot of getting apart to avoid doing serious damage. Keep up the spraying routine to keep the bugs away, better to be safe than sorry. They won't seem to be growing very fast while it is stinking hot, but after the end of February you will have your work cut out tying them up, don't forget to change your fertilizer over to high potash mid-February. Stop the singles you want for sprays on 20th March, just the very tip where the terminal bud would be. Now a few words about cutting and taking blooms to the shows. If some of them are ready about a week from the show you can hold them by putting them in a dark cool place, I use the wardrobe in the back bedroom (I hope you pay rent!). If your timing is right you should have them all cut the day before the show to give them a good drink. I use 60lt buckets filled with water to which I add 2 tablespoons of white king bleach (don't put any more or it will start to take the colour out of the leaves) 4 of sugar and 4 of vinegar; bleach keeps the water clean, vinegar helps the flower to take up the sugar which helps the bloom to sparkle. I carry my blooms in carriers, some Les Smith gave me when I first started growing and some I made myself and these go in the trailer. I have a frame on the sides and put a tarp over that to protect them from the wind, I also let some air out of the tyres, down to about 15lbs, as it stops it from bouncing around. I hope these notes are helpful and good luck with your plants.

There is a lot of interesting material in past newsletters. On a hot day when there is not much to do, why not take some time to read some. They are available on our society website.

To the above advice I would add that during the hot days ahead you need to be on the lookout for spider mites. They thrive under hot and dry conditions. Raising humidity in the growing area is one way to help control them.

Unfortunately, chilli thrips are now commonplace and they like hot humid conditions. The following advice regarding chilli thrips is taken from the WA Department of Primary Industries and Regional development website.

<https://www.agric.wa.gov.au/horticulture/chilli-thrips-roses>

Monitoring

Inspect plants regularly for evidence of thrips to enable early detection and minimise impact by the pest.

Monitoring is vital to enable the implementation of preventative measures when thrips are detected, because they are difficult to control once plant damage is evident.

- *Use an adhesive trap (ideally blue since it attracts chilli thrips). Examine every few days using a magnifying glass to check whether chilli thrips (usually winged adults) have stuck to them.*
- *Tap flowers over a sheet of white paper and examine the black, torpedo-shaped 'specks' beneath a magnifying glass.*

Management

Chilli thrips are difficult to control and public reporting indicates chilli thrips and other thrips species are prevalent across the Perth metropolitan region. The use of an Integrated Pest Management System is the most effective way to prevent chilli thrips infestations. DPIRD recommends the following management activities:

- *Undertake a hard prune of infested plants to remove damaged plant material*

- *Dispose of cuttings as most practicable.*
- *There are no mandatory disposal requirements for this pest but good biosecurity practices when inspecting and treating plants will limit pest and disease spread:*
 - *Bag smaller volumes of cuttings to help reduce local spread to sections of the property that are not showing signs of the pest.*
 - *Clean tools between plants, especially if cutting plants that looks diseased.*
- *Small populations may not cause sufficient damage to warrant chemical control but large infestations can seriously weaken plants.*
- *A range of products registered to treat other thrips species may be used.*
 - *Preventative sprays may be required in some situations, such as to negate even small amounts of damage to blossom stems for show roses. Time preventative spraying to correlate with bud initiation.*
 - *Products that contain active ingredients such as imidacloprid, acetamiprid, spinetoram, or pyrethroids are effective against thrips, and may be available to home gardeners.*
 - *Horticultural soap, oils, and other products may be available as organic controls.*

Always use products purchased for management of thrips according to label directions.

DPIRD recommends thoroughly spraying plants all over because the thrips take refuge under the veins of the leaves, making it difficult for the insecticide to contact all the insects. It may be difficult to kill the pests when they are hidden deep within the flower petals.

Multiple applications of treatments, whether organic or not, may be required and it may be wise to apply treatments to other nearby host plants to protect them from the pest. Take care when applying insecticides to conserve the beneficial predators that will help with thrips control.

Another topic to be considered is how many laterals (main stems) should each plant be allowed to carry after the January stop. My advice is that Exhibition cultivars (Sections 1 and 2) should have two, Decoratives (Sections 3, 4 and 5) four, Anemone, Show Singles and Pompones six, Cuts and Sprays (Sections 7 and 9) two or three and Fantasies (Section 10) three. Individual plants can be treated differently depending upon the potential of the cultivar and the vigour of individual plants. The plant will often give you a clue. After the stop you will get a lot of shoots forming. Some will be stronger than others. Once they are seen to be growing away well remove all of the weaker ones. Remove others progressively until all those remaining seem to be of equal strength. At that point you can predict that all the resultant blooms should be similar in size. From then on you need to decide if you want one or two king (monarch?) size blooms or more, slightly smaller ones, and that will determine how many stems should remain. Experienced growers will know the thickness and vigour of stems required to carry the best blooms for each cultivar that they grow.

For advice on fertilising and pH testing and further advice on pest control please review the November - December 2022 edition of the newsletter.

Editor's Notes

It's all happening! A new year, new opportunities! Ho-hum, whatever, Groundhog Day? Please yourself, your choice. If your New Year's resolution is to not let the grass grow under your feet you could always go inside, sit down and watch it grow from the window. However, time waits for no *Homo sapiens sapiens* (annoying taxonomists and language revisionists again – ew!) and so my advice is to make the most of it while you can. According to one sage, “the growing starts now”. So, what are you waiting for? Encouragement! That is what these newsletters are for. Why not read them. Revisiting a topic from the last newsletter –

*I talk to the trees (chryxies and the dog)
But they don't listen to me
I talk to the stars
But they never hear me*

*The breeze hasn't time
To stop, and hear what I say
I talk to them all
In vain*

*But suddenly, my words
Reach someone else's ear (via this newsletter)
Touch someone else's heart
Strings too (Lina and the dog)*

*I tell you my dreams
And while you're listening to me
I suddenly see them
Come true (?)*

*I can see us on some April night
Looking out across a rollin' farm (of chryxies)
Having supper in the candlelight
Walking later, arm in arm (with Lina and the dog)*

*Then I'll tell you
How I pass the day (in the chryxie patch)
Thinking mainly how
The night (expunged, 15+ adult themes)*

*Then I'll try to find
The words to say
All the things you
Mean to me*

*I tell you my dreams (five spherical, refulgent, un-
tarnished blooms glorified by brilliant art shades)
And while you're
Listening to me
I suddenly see them
Come true (Can punks feel lucky?)*

Clint Eastwood version <https://www.youtube.com/watch?v=nn8YubD01sk>

or try <https://www.youtube.com/watch?v=NnWw8FPfs78>

You get the drift.

CONTINENTAL DRIFT OF PLATES



225 Million Years Ago



150 Million Years Ago



100 Million Years Ago



Earth Today

You may remember reading about monotremes and marsupials in the last newsletter and how they spread between Australia and South America via Antarctica. Going back a bit further in evolution we find that -

The evolution of mammals has passed through many stages since the first appearance of their synapsid ancestors in the Pennsylvanian sub-period of the late Carboniferous period (323.2 - 298.9 million years ago).

By the mid-Triassic (251.9 - 201.36 million years ago), there were many synapsid species that looked like mammals. The lineage leading to today's mammals split up in the Jurassic (201.3 - 145 million years ago).

You can see that all the continents were joined at the time when “many of the synapsid species looked like mammals” and so mammalian ancestors were able to spread to all continents.

It is thought that marsupials diverged from placental mammals around 160 million years ago. And monotremes diverged from both of them prior to that. Surprisingly enough, one reputable source states that marsupials evolved in Asia and then spread to North America, South America, Antarctica and lastly to Australia. Conversely, monotremes are thought to have evolved in Australia and then spread to Antarctica and South America only.

You might think that there would be some monotremes and marsupials in Africa and Asia but maybe the lions and tigers ate them all.

The movement of the continents is interesting and explains why the Pacific Ocean is a lot bigger than the Atlantic and Indian Oceans. The Himalayas started forming fifty million years ago when India smashed into Asia at a top speed of 15cm/year. Mount Everest is composed of limestone that got pushed up from the sea.

It is said that a change is as good as a holiday. Lina and I went to Singapore in late November after having stayed put in Perth for three years to successfully avoid Covid. While Covid has been out of the news a bit here in WA a new strain, Omicron XBB, was raging ahead in Singapore prior to our departure. We decided to go anyway and wore our N95 masks everywhere. On our first day we visited the National Museum, as it was very close to our hotel. Imagine my surprise when there was a special display featuring the Mexican Day of the Dead (Dia de los Muertos). Readers will recall a segment in an earlier WACS Newsletter about this day which has been recognised as a UNESCO Intangible Cultural Heritage. The display was very colourful and featured monarch butterflies and marigolds. I spoke to the curator of the display who was a Mexican lady who had lived in Singapore for the last seventeen years. It turns out that chrysanthemums are not used in the floral tributes but marigolds, which are native to Mexico, are. It turns out that she was a fan of Natalia Lafourcade, who has also been featured several times in the society's newsletters and, as a result, is now WACS members' favourite Mexican singer. The museum's permanent exhibits featured cultural aspects and eras of mainly post-colonial Singapore. After that we visited Fort Canning, a former British military site. The next morning we went on a walking tour of Little India with our self-described “Chindian” tour guide. There were many shops selling fabrics and I was reminded of an observation of an Indian grower that we should try to get more sari colours into our chrysisies.

As luck would have it I then came down with Covid and Lina followed my lead two days later. I am fairly sure that I was infected before we left Perth and if so then I know the name of the guy that gave it to me. Suffice it to say he is not an esteemed member of WACS and not interested at all in chrysanthemums, or for that matter any other horticultural pursuit. You know the type, ignorant, self-entitled, fine wine and pate de fois gras scoffing, snout in the trough types masquerading as solid citizens, unable to call a spade a spade due to an inability to distinguish one from a shovel. (Feel free to add further class war stereotypes at your own pleasure.)

Being ridgy-didge solid citizens ourselves, you know the type, WACS members especially, Lina and I spent the rest of our stay cocooned in our hotel room in order to avoid infecting the local populace as well as being too tired to be able to venture out. Luckily we had booked a small apartment with a kitchenette and had stocked up the pantry when we first arrived. Being cocooned in a hotel for a week is an interesting experience but not that bad when having an abundance of time to recall that there is always someone worse off than you. This philosophical approach is easier to undertake when you are too lethargic to be cranky.

Screen based entertainment is indispensable in this sort of situation. Forty five channels of cable television with little worth watching on any of them, especially if you do not understand Malay, Mandarin, Cantonese, Hindi and Tamil. I did watch an interesting documentary on elephant seals followed by one on sumo wrestling; an interesting juxtaposition. A number of the top rikishi (sumo wrestlers) weigh around one hundred and sixty kilograms while the mature alpha-male beach masters weigh around three thousand kilograms. Since it is said that travel broadens the mind I must add that while the seals are driven purely by primal instincts sumo has a distinct spiritual element having developed with influences from the Shinto religion and other Japanese cultural traditions. As an illustration, the last day of a sumo tournament is called “senshuraku”, which literally means “the pleasure of a thousand autumns”.

Chrysanthemum growers require only a single autumn for similar pleasure, such is the enrapturing effect of refulgent blooms of staggering immensity glorified by brilliant art shades. The soccer World Cup was on during this time but, unfortunately, not on any of the forty five channels on our television.

Fortunately there is the internet and it is full of useful information, including on the movement of tectonic plates and mammalian evolution. But wait, there's more!

*Marigolds, both French and African, are indigenous to Mexico and Guatemala. They were discovered in the early 16th century and brought to Europe and Northern Africa in the late 16th century where they were quickly adopted into gardens. The family name, *Tagetes*, is derived from a mythical Etruscan deity.*

*In the wild, the French Marigold, *Tagetes patula*, is an 18 inch tall, bushy plant with heavily scented, feathery leaves. The flowers are daisy-like and pale yellow. The wild African Marigold, *Tagetes erecta*, is 4-5 feet high with 2-4 inch flowers that vary in colour from pale yellow to deep orange.*

*By the time the plants were introduced into Britain in the early 1600's, the African Marigold, *Tagetes erecta*, had naturalized along the North African coast, and it is probably because of this that the British erroneously named the plant the African Marigold. The British called the French Marigold the "Rose-of-the-Indies". In Spain, the flowers were the favourites to be placed on the altar of the Virgin Mary. Eventually they became known as Mary's Gold and hence, marigold. In India, the plants grew to have religious significance and became known as the Friendship Flower.*

I wondered why the Singapore National Museum would have an exhibition featuring the Mexican "Day of the Dead" and perhaps the reason is that marigolds are symbolic of the friendship between Mexicans and the Singaporean Indian community.



Tagetes erecta



Tagetes patula

You might wonder whether chrysanthemums and marigolds are related. They are both golden in their natural forms but, as you know, looks can be deceptive.

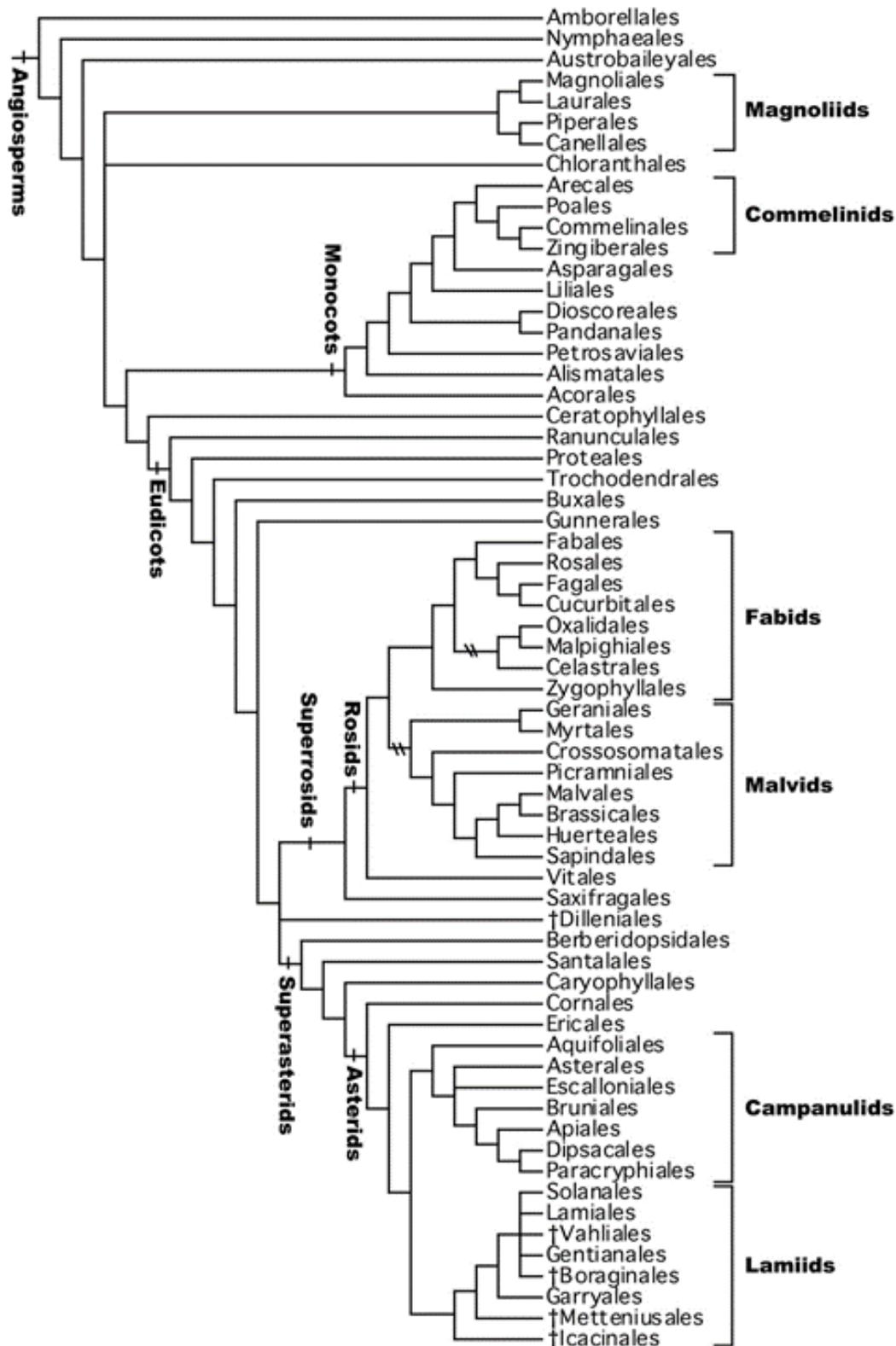
Flowering plants (angiosperms) are divided into monocotyledons (monocots) and dicotyledons (dicots) according to whether they have one or two cotyledons, where a cotyledon is *an embryonic leaf, one or more of which are the first leaves to appear from a germinating seed*. Or at least they were from 1682 until 1993 after which taxonomists changed their minds and split up the dicots. We then had **Amborellales, Nymphaeales, Austrobaileyales, Chloranthales, Magnoliids, Ceratophyllales, Eudicots** and Monocots (pesky taxonomists again). Eudicots, meaning "true (-blue) dicots", are also known as tricolpates as their pollen has three furrows or pores, whereas the "untrue dicots" do not. As monocots and eudicots comprise 97% of the angiosperms you can probably ignore the others, unless you are keen on water lilies, star anise, lianas or magnolias, as has the mistaken author of the following chart.

Comparison chart

| | Dicot | Monocot |
|------------------------------------|--|--|
| Embryo | As the name suggests, the dicot embryo has two cotyledons. | Monocotyledons have one cotyledon in the embryo. |
| Leaf venation | Leaf veins are reticulated (branched). | Leaf veins are parallel. |
| Type of leaves | Dorsiventral | Isobilateral |
| Stomata in leaves | Some dicots are epistomatous i.e., they have stomata only on one surface on their leaves. | Monocots are amphistomatous i.e., they have stomata on both the upper and lower surface. |
| Bulliform cells | Dicot leaves do not have bulliform cells. | Many monocots have bulliform cells on their leaves to regulate the loss of water. |
| Flowers | Petals in multiples of four or five. | Petals in multiples of three. |
| Root Pattern | Taproot system | Fibrous roots |
| Secondary growth | Often present | Absent |
| Stem and vascular system | Bundles of vascular tissue arranged in a ring. The vascular system is divided into a cortex and stele. | Bundles of vascular tissue scattered throughout the stem with no particular arrangement, and has no cortex. |
| Pollen | Pollen with three furrows or pores. | Pollen with a single furrow or pore. |
| Presence or absence of wood | Both herbaceous and woody | Herbaceous |
| Number of seed leaves | 2 seed leaves | 1 seed leaf |
| Examples | Legumes (pea, beans, lentils, peanuts) daisies, mint, lettuce, tomato and oak are examples of dicots. | Grains, (wheat, corn, rice, millet) lilies, daffodils, sugarcane, banana, palm, ginger, onions, bamboo, sugar, cone, palm tree, banana tree, and grass are examples of monocots. |

If you look at the leaves of chrysanthemums and marigolds you will notice that leaf veins are reticulated and if you have ever grown them from seed then you will have seen that the seedlings emerge with two leaves. Hence they are not monocots. You will have to take my word for it that they both have pollen grains with three furrows or pores and so they are Eudicots.

The following is a detailed breakdown of the main subdivisions of angiosperms, as it was in 2016. Maybe it has changed by now. I include it mainly to show the wide variety of flowering plants.



The branch we are looking for starts with the clades Core eudicots, Superasterids, Asterids and finishing with Campanulids. There are seven orders within Campanulids and our interest continues with one of them, the Asterales. A family within the Asterales is the Asteraceae and this is where it gets interesting, especially for those readers who are not that interested so far.

If you want to know what defines Superasterids then go for it.

<https://www.youtube.com/watch?v=mzHxK5SUd38>

Chrysanthemums and marigolds are both members of the Asteraceae family. The following video outlines the taxonomy of Asteraceae. It is interesting on a number of levels including providing insights into the science and art of taxonomy.

https://www.youtube.com/watch?v=r8yYd6uz8_o

Keeping it simple, the defining feature of the Asteraceae is that the included genera have composite flower heads, hence the former name of Compositae (pesky taxonomists). These composite flower heads have the appearance of a single flower but the “flowers” are composed of many, possibly hundreds of, individual florets grouped together on a capitulum at the end of a stem. The individual florets are of two types, ray florets and disc florets. A cursory inspection reveals that the ray florets have a single prominent petal whereas the disc florets have none. As you know, looks can be deceptive. More on this later.

The Asteraceae are divided into thirteen sub-families and we are interested in the Asteroideae, especially as it includes chrysanthemums, which as you know are out of this world. Asteroideae is further subdivided into twenty one tribes. Tribes are divided into genera. The chrysanthemums (genus = *Chrysanthemum*) are found in the Anthemideae tribe whereas marigolds (genus = *Tagetes*) are in the Tageteae.

So, as you now see, chrysanthemums and marigolds are quite closely related. They can be thought of as cousins. However, if you were to consider the different species of chrysanthemums and marigolds as siblings then the relationship would be more distant; please yourself.

So, what about the number of petals in each floret of a chrysanthemum. Chrysanthemums are Eudicots. The dicot/monocot comparison chart says that they should have petals in multiples of four or five. All eudicots with the exception of the Gunnerales are included in the sub-group Pentapetalae. Hence the number of petals is five.

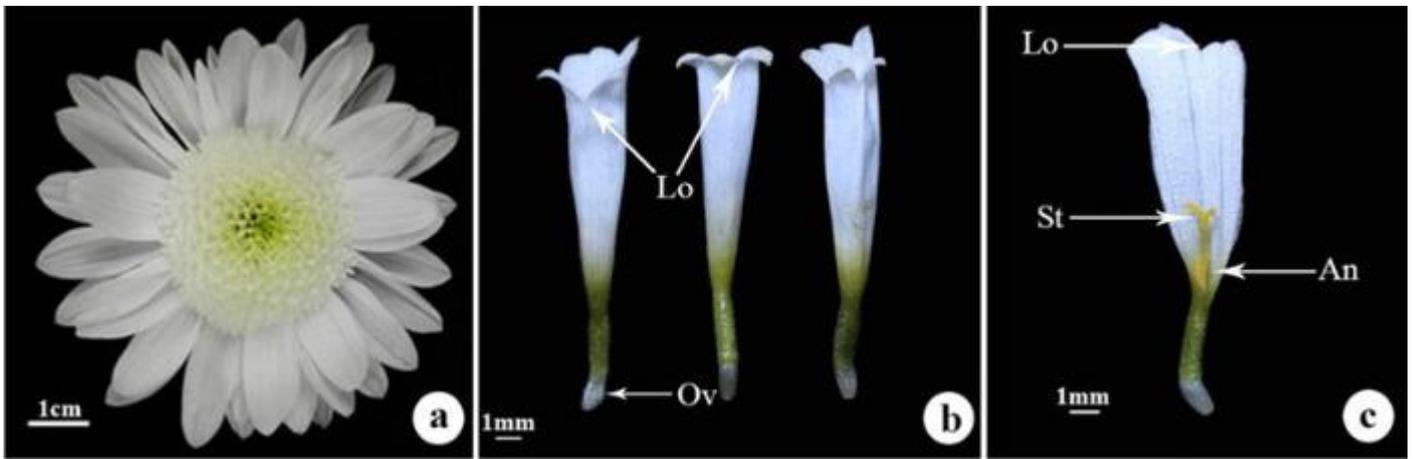
Looking at a chrysanthemum flower we see that it consists of disc florets, which are bisexual having stamens and a pistil and ray florets which are female, having a pistil but no stamens. As described above, the ray florets have one prominent “petal” which is actually composed of three petals fused together and more properly called a ligule. The other two petals are rudimentary and are placed one on either side of the ligule, to make a total of five petals, as expected. The disc florets also have five petals. The disc florets have radial symmetry, meaning that they have identically shaped petals arranged in a circle around the central point. OK, all good.

What about the disc florets of Anemones then, I hear you ask?

Anemones are fundamentally no different to other chrysanthemums. The prominent “cushion” is due to thickening and elongation of the five petals of the disc florets. If you want more of the technical details then here they are.

The histological structure of disk floret in the anemone type chrysanthemum plays similarities with that of the ray floret not only at their developmental stage but also at the mature stage. They all consist of multiple cell layers including upper and lower epidermal cell layers and internal loose mesophyll cells. Nevertheless, the disk floret of the non-anemone type chrysanthemum just has the petal layout of upper and lower epidermal cell layers. In the development of the disk floret in anemone type chrysanthemum, the exuberant division activity of the internal cells of the petal and the well-developed vascular tissues are probably the important reasons for the formation of the anemone.

Scanning electron microscopy observation showed that morphological differences between non-anemone-type disc florets and anemone-type disc florets occurred mainly during the petal elongation period. The anemone-type disc florets elongated rapidly in the later stages of development. Longitudinal paraffin section analysis revealed that the anemone-type disc florets were formed by a great number of cells in the middle layer of the petals with vigorous division

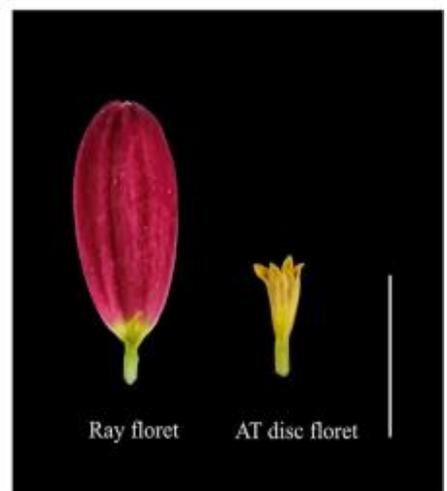
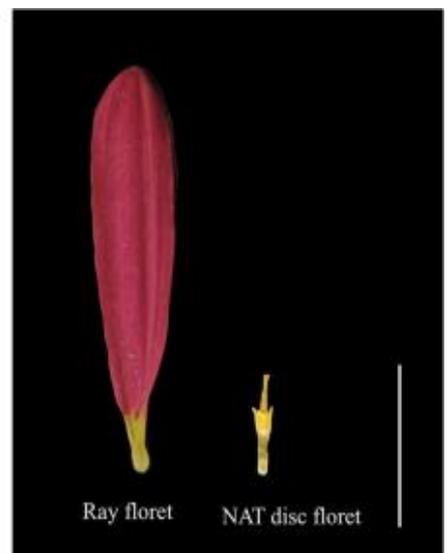
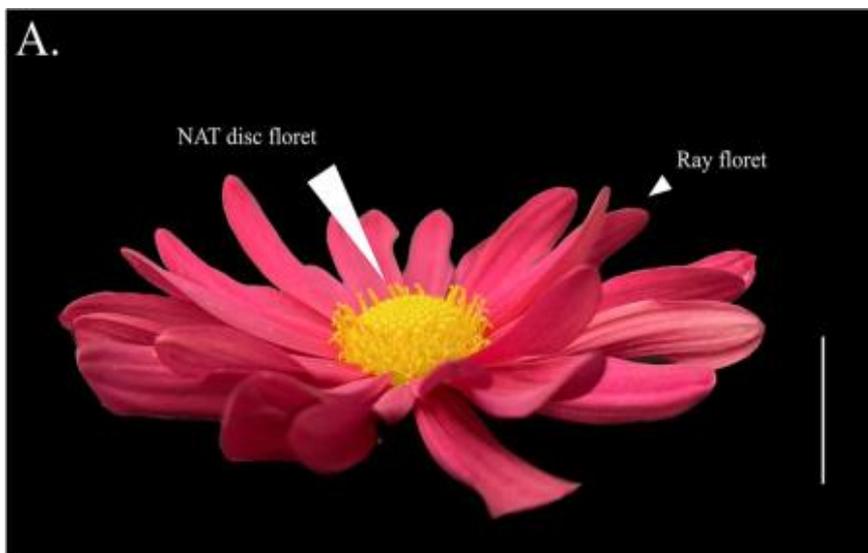


a anemone flower

b disc florets

c ray floret

Lo lobe; **Ov** ovule; **St** style; **An** anther



A. NAT - non anemone type flower/floret

B. AT - anemone type flower/floret

As a matter of further (?) interest, you may have read that some breeders of commercial chrysanthemums will take a tip cutting from their new un-flowered seedlings and then grow those on to assess the seedlings' potential for commercial use. This is because it has been found that some chrysanthemums perform significantly better in their first season when grown from seed than they subsequently do when grown from cuttings. So, one growing cycle can be saved in evaluating a seedling's true worth. You will note from the chart that dicots, when grown from seed, have

a tap root, whereas when grown from cuttings they do not. This difference in root system may explain the reason for better performance of the plants grown from seed (or maybe it doesn't).

I will not bore you further with other things that I looked up on the internet, especially as I am running late getting this newsletter finished.

As my Ukrainian YouTube mate, Denys Davydov, says - *I wish you a peaceful sky wherever you are. Have a great time.* Sometimes you do not realise just how lucky you are.

In the highly unlikely event that my mate, let's call him "Charles St. John Cholmondeley Featherstone Howe-Smythe", is reading this, please enjoy your fifteen course degustation luncheons with fine wines and go outside and smell the roses but remember that some poor sods had to grow all of those things.

"Chuckie", check out the best Crimean resorts for your next holiday at -

<https://noosa-heads.net/crimean-resorts-a-complete-guide/#:~:text=Resorts%20of%20the%20Crimea%20%E2%80%93%20the%20most%20complete,6%202.6%20Sudak%20Resort%207%202.7%20Feodosia%20Resort>

They are well worth seeing now before they are all smashed up and, due to exceptional circumstances occasioned by differing interpretations of history and ethnography, they are not currently being sullied by the crass tourism of common folk. If you prefer an area fronting the Black Sea not currently at war then why not consider Georgia. See if you can rival the Argonauts and find another Golden Fleece. It would look rather fine on your wife.

Also, be advised that -

spades and shovels both have long handles but spades typically have a D at the top for gripping. They both are intended to move earth and materials, but the shovel is better for 'scooping and lifting' and the flat edge of the spade is better for 'cutting and scraping'.



I know, "Chas", that your tastes in music are rather esoteric but you will have to admit that this has a certain simple charm although, admittedly, rather more suited to the peasant classes -

<https://www.youtube.com/watch?v=10Ha80EgaB0>

Marigolds.

The friendship flower.

Forgive us our trespasses as we forgive those who trespass against us.

Forgive your enemies, but never forget their names.

Time to cheer up and let bygones be bygones. Can a "right Charlie" ever do wrong?

"Charles", I forgive you.

If spending a fine day in the garden this ditty is sure to cheer us all up and it is in English!

<https://www.youtube.com/watch?v=nuzaSmVyBIA>

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Forthcoming Events - It's all happening!

General Meeting Noon, Tuesday 14th February 2023 John McGrath Pavilion, 97 Hensman Street, South Perth.

WAHC Garden Clubs' & Societies' Plant Fair 18th & 19th February 2023 South Perth Community Centre

General Meeting Noon, Tuesday 11 April 2023 (day after Easter Monday holiday) John McGrath Pavilion, 97 Hensman Street, South Perth.

Social Day 1:30 pm Sunday 12th March 2023 6 Regent St West, Mt Lawley Sunday.

Social Day 1:30 pm Sunday 23rd April 2023 136 Merrivale Road, Pickering Brook

Annual Flower Show Thursday 11th to Saturday 13th May 2023 Hawaiian Forrestfield Shopping Centre

Awards Luncheon 11:30 - 3:00 pm Tuesday 23rd May 2023 John McGrath Pavilion, 97 Hensman Street, South Perth.



Facebook Page

<https://www.facebook.com/groups/chrysanthemumwa/>

Website

www.chrysanthemumwa.com

Mentors

Ian Blackwell – Kelmscott 0424 432 608

Ralph Coombes – Maida Vale 9454 3373

Michael Drake-Brockman – Pickering Brook 9293 7650

Carl Slusarczyk – Mount Lawley 9272 1356

Richard Williams – Inglewood 0439 103 500

The crowd called out for more and who can blame them.

https://www.youtube.com/watch?v=F0FOs_BL5CU

<https://www.youtube.com/watch?v=HVT0oDZCtKY>

There are 373 million native English speakers in the world out of a world population of about 8 billion people. It is a big world out there. There are 475 million native speakers of Spanish.