



NEWSLETTER

November – December 2019

President's Notes

It was good to see many of you at the Distribution Day and I hope that you have now got all of the cultivars that you want to grow. The Horticultural Council Fair in September was again successful. Some new members were enrolled and plant sales, while a little down on last year, were still good.

We have provided speakers for a number of horticultural groups this year, so the level of community interest in chrysanthemums seems to be increasing, which is encouraging.

The AGM went well with all management positions filled. This will help to ensure the smooth running of the Society.

Planning for the Australian Championship is underway and hopefully it will be a big success. This of course requires a goodly number of blooms to be exhibited, so don't hold back. The financial report given at the AGM showed a reasonable surplus. As a result, we have decided to reintroduce prize money for all classes at our 2020 show. This is in addition to the substantial prizemoney on offer for the Australian Championship.

We will again have two social days this season, with visits arranged to Lina and my home in March and to Michael and Judy Drake-Brockman's home in April. I hope that many of you will be able to attend.

Remember that you just love growing chrysies and so I hope that you will have some fun with your plants and will be rewarded with some beautiful blooms.

Cultural Matters

By the time you receive this newsletter we will have just had our annual Distribution Day. Hopefully you now have all the cultivars that you wish to grow for this season. The task from now on is to build the plants up to develop a strong root system and a framework of branches to hold the flowering stems.

The following notes apply to the production of plants for specimen blooms. Frank Blackwell has kindly written an article on growing Charms (Section 12a), which require some different methods. Frank's article will follow this.

At this time of the year your plants are probably in 100mm pots. Knock some of the biggest ones out of their pots and check the root development. As a general matter of principle it is important to have a root system that has taken a good hold of the compost before potting on to a larger pot. The natural habit of

roots is to grow outwards from the stem and you are trying to avoid a situation where your plants are in their final pot with most of the root development at the bottom and sides of the pot with few roots more centrally. This will lead to an over-potted plant with wet soil and poor plant growth. If growing in the open ground this is not a concern as roots and moisture are not confined by the sides or base of a pot and with our mostly sand based garden soils overwatering is seldom a problem.

Conversely, do not allow the plants to become root bound because this leads to tall spindly bonsai type growth. Our warm climate causes the small pots to dry out very quickly which compounds the problem.

Once the roots have taken a good hold of the soil they need to be transferred to 150mm pots. Any that were rooted late and are not yet well established in 68mm pots should be transferred to 100mm pots as the very small pots dry out too quickly in late spring.

In respect to water and fertiliser, remember that the plant produces roots in order to obtain both. So do not supply excessive amounts of either in the early stages so that the plant will be forced to make plenty of roots. This idea of lower levels of fertiliser for young plants is found in the John Innes Potting Compost recipe recommendations where the quantity of fertiliser increases as the plants develop. The JI #2 Compost has double the amount of fertiliser as JI #1 Compost and JI #3 has triple the amount of JI #1.

The final potting is usually undertaken in December. Once again it is important that the root system is well developed before this is done. Vigorous growing and rooting plants can be potted to 300mm pots and the others to 250mm pots. Hopefully you have grown more plants than you need up until final potting and if so any slow growers can be discarded. If they are needed then they may do OK in a 200mm pot. In our hot dry climate it is difficult to properly regulate moisture levels in small pots, so if you have multiple smaller plants of the same cultivar then planting two or three in a larger pot is worth considering.

As far as the top growth is concerned it is necessary to form branches in order to hold the number of flowers that you intend each plant to carry. The top of the stem should be taken off some time in December to make the plant branch out. Section 1 and 2 cultivars are normally stopped in the first week of December and the others during the third week of December.

How much to take off is a matter for debate. I have noticed that the tallest plants tend to wilt first on very hot days and presumably once they wilt they stop growing until they become turgid again later in the day. Perhaps this is part of the reason that many growers like to produce shorter plants by reducing the stem to below 250mm in height, providing that there is good leaf coverage on the lower part of the stem. One Victorian grower recommends retaining six good leaves. Other growers only remove the very tip of the stem in the belief that the more leaves the plant retains the stronger will be its growth.¹

Once the new branches form only keep the number you want to grow on. Remove all others promptly in order to direct all the plant's strength into those retained. Many growers retain three branches, as this is the number stems normally grown on Section 1 and 2 cultivars² and the number of branches on other Section cultivars can be increased following the second stop in January.

Any plants that run to bud early in the season need to be cut back hard to force new growth to emerge from lower down. Alternatively, remove the stem entirely and hope for a strong sucker to grow from the ground. Depending on sufficient development that can also be stopped in December as well, or alternatively stopped once only in January, when the other plants are stopped for the second time.

¹ I would be happy to hear from any warm climate growers who have done their own experiments comparing the results of the two alternative methods. Ted King, a warm climate nurseryman from USA, recommended reducing the plant height at the first stop.

² One stem is often removed to leave two flowering stems once the flower buds form.

CHARMS

Charms are small chrysanthemums that provide a spectacular display from April to June. They can be grown as a border, but are better grown in about 200mm (8") pots. Even in a very limited garden environment a charm or two can easily be looked after.

Charms can be grown from seeds, but proven cultivars using cuttings is the best method. Take cuttings as you do for other chrysanthemums.

Water sparingly, although you do need to keep them watered regularly in hot weather.

Grow them in the open as too much shade will lead to longer growth.

When the plant is about 100mm (4") high snip out the growing tip to promote side growth. A good cultivar may have already done this itself.

Keep pinching out the tips when each shoot has 3 to 5 sets of leaves. Keep up this process until you have the required size and shape and the flower buds appear in early March.

You can shape plants with scissors / secateurs from mid-January to early February if they appear to be getting long. If you don't keep this process up regularly the stems will be too long and when flowering may bend over spoiling the overall spherical shape of the plant. Do this shaping earlier rather than later so that there is enough growing time left for more pedicels and hence more flowers.

When extra shoots come up in the pot allow them to grow following the same process as for the main plant. This helps to fill in the bottom part of the sphere.

Use a general insecticide / fungicide regularly during the growing season. Rose Shield works well, but varying sprays is always more effective. Watch out for snails, slugs and weeds.

Regularly feed with a liquid fertilizer as per instructions on the pack. After early January avoid the high nitrogen mixes. Yates fruit and flower is effective. Don't feed after the final buds begin to open.

Each charm plant demands the same amount of time as each Exhibition Bloom plant to be at its best. Don't try to do too many. The term "charm" is more one of form, and although special cultivars are recommended you can try almost any cultivar.

We need to explore how we might get stock of miniatures, charms and cascades seen on websites around the world.

Good Luck!

Frank Blackwell



Before Shaping

After Shaping



Acrostic Puzzle

At the AGM the Treasurer suggested the inclusion of a crossword in the next newsletter. As a result I have added, at the end of this Newsletter, an acrostic puzzle that I knocked up with the help of Excel software. First you solve the clues, which then decodes the letters. This will allow you to solve the text of a famous WACS quotation. Experienced WACS members will probably solve this puzzle easily, but others are advised to consult the 50th Anniversary of WACS booklet, the last Newsletter and the Australian Register of Chrysanthemums (cultivars known to exist in WA). There are no prizes for solving it. Sorry.

Chrysanthemum Breeding

While browsing the net for chrysanthemum poems I came across the following book. “Disentangling Hexaploid Genetics – Towards DNA informed breeding for postharvest performance in chrysanthemum” by Geert van Geest. This book is of interest to WACS members primarily to give an idea of the level of complexity in the science of modern plant breeding. Prospective breeders amongst our WACS members should not be discouraged however and are still recommended to have a go!

There is a table in the book that outlines the turnover of horticultural crops in Holland. This shows that chrysanthemums are the second most valuable crop with annual wholesale sales in 2015 of 363 million Euro (A\$ 591 million). Here is the link to the full text, in case you should wish to torture yourself.

<http://edepot.wur.nl/420068>

So What is a Hexaploid?

All plants and animals have their genetic material incorporated into chromosomes, which are long chains of DNA that control the processes by which they grow and function. Chrysanthemums have 54 chromosomes in each cell and humans have 46. A human's 46 chromosomes are made up of 23 pairs. Each person obtains 23 different chromosomes from their father and a matching set of 23 from their mother via the sperm and egg. All organisms that have two of each chromosome are called diploids. (di = 2) However, when the chromosomes of chrysanthemums are examined closely it is seen that instead of having two of each type they have six. Hence they are referred to as hexaploids. (hexa = 6) Organisms with chromosome numbers greater than diploid are called polyploids. (poly = many) It is believed that polyploid organisms started out on the evolutionary tree as diploids but later became polyploid due to some evolutionary advantage that higher ploidy provided. If you want to know more about polyploids then check out Wikipedia at

<https://en.wikipedia.org/wiki/Polyploidy>

If you want to know what some of the consequences are of being a hexaploid rather than a diploid then read Geert van Geest's book.

Editor's Notes

It will soon be Remembrance Day. While in France this year I visited Villers-Bretonneux, the scene of a notable Australian WW1 action, helping to liberate the town from German forces on 25th April 1918. At the nearby John Monash Centre which is part of the Australian National Memorial and Military Cemetery there is a reproduction of a speech given by Paul Keating, as Prime Minister, at the 1993 Remembrance Day interment of the remains of an unknown soldier at the Australian War Memorial in Canberra. It is well worth reading.

www.awm.gov.au/commemoration/speeches/keating-remembrance-day-1993

Not into speeches? Well then you may prefer this, from 1982. Different war, same result.

https://www.youtube.com/watch?v=x4Wwg9_zn_c&list=RDMMUJBRhPcQ_9c&index=28

In the last newsletter I mentioned a couple of short story classics that gave chrysanthemums a bit of a bum rap. To continue the theme, here is a Thomas Hardy (1840 - 1928) poem entitled "The Last Chrysanthemum" in which our poor flower is said to be "dreaming in witlessness". Perhaps I am quoting out of context and so literature scholars and book club aficionados, in particular, are invited to determine for themselves the overall level of esteem that Hardy affords it. It's all a bit much for me I am afraid. I did notice though that the first and third and second and fourth lines rhyme. A proper British poem, like wot we was tort in skool. None of this five, seven, five or ten syllable per line iambic pentameter foreign shite.

The Last Chrysanthemum

*Why should this flower delay so long
To show its tremulous plumes?*

*Now is the time of plaintive robin-song,
When flowers are in their tombs.*

*Through the slow summer, when the sun
Called to each frond and whorl
That all he could for flowers was being done,
Why did it not uncurl?*

*It must have felt that fervid call
Although it took no heed,
Waking but now, when leaves like corpses fall,
And saps all retrocede.*

*Too late its beauty, lonely thing,
The season's shine is spent,
Nothing remains for it but shivering
In tempests turbulent.*

*Had it a reason for delay,
Dreaming in witlessness
That for a bloom so delicately gay
Winter would stay its stress?*

*- I talk as if the thing were born
With sense to work its mind;
Yet it is but one mask of many worn
By the Great Face behind.*

Dedicated horticulturalists, such as the esteemed membership of the WACS, are well aware that chrysanthemums are able to bloom so late in the season because they, like the author, are hardy.

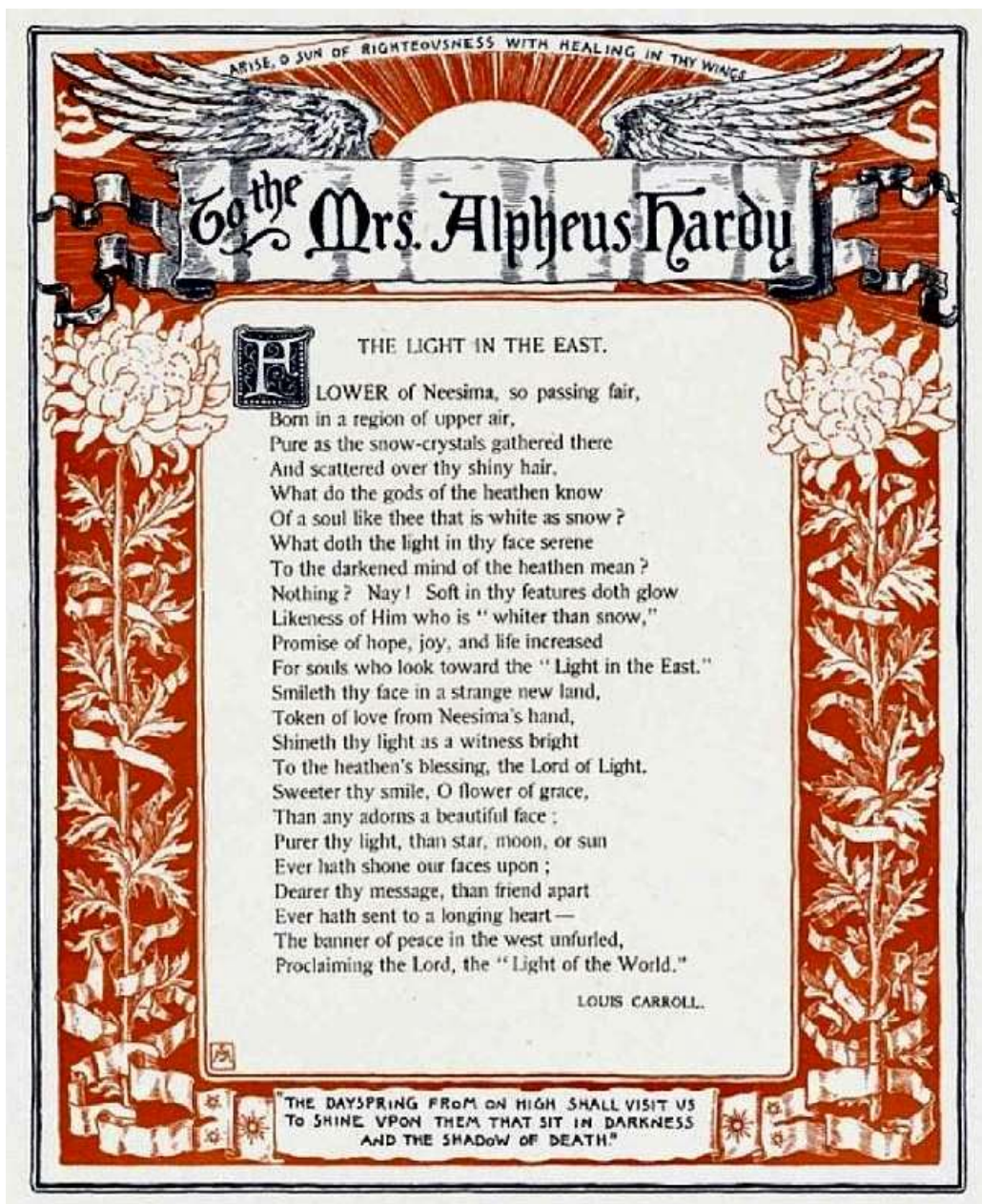
Rather surprisingly, I also managed to find a literary work which portrays the chrysanthemum in a very positive way. "The Golden Flower - Chrysanthemum." By F. Schuyler Mathews (1854-1938), published in the USA in 1890. It is described thus -

A collection of verses and beautiful illustrations of various types of Chrysanthemums - 18 verses (by Edith M. Thomas, Richard Henry Stoddard, Alice Ward Bailey, Celia Thaxter, Kate Upson Clark, Louis Carroll, Margaret Deland, Robert Browning, & Oliver Wendell Holmes), and 16 chromolithographs (including frontispiece).

The book, in photographic form, is available on the net. Here is the link.

<https://collections.mfa.org/objects/512543>

To whet your appetite, I reproduce one of the poems and an image of the flower (doubly Hardy) to which it relates.



Mrs Alpheus Hardy

The poem begins with the words “Flower of Neesima ...” An internet search explains the relevance.

History of a Beautiful Flower—The large and beautiful chrysanthemum known as the "Mrs. Alpheus Hardy," which has recently become such a favorite, has an interesting history. Several years ago there came to Boston a young Japanese boy, Joseph Neesima, who was very anxious to obtain an education that would fit him for missionary work in his own country. He attracted the notice of the late Alpheus Hardy, whose philanthropy was well known, and by his kindness the poor boy received a thorough collegiate and theological education. He returned home, where he labored until his death, a few months ago. Soon after his return to Japan, wishing to make some expression of his gratitude, young Neesima sent to Mrs. Hardy a collection of thirty chrysanthemum plants which he had gathered in his native country.

Mrs. Hardy placed these with an experienced florist, who gave the apparently worthless plants excellent care, and was rewarded by a rich collection of blossoms. Among these was the queenly flower which has attracted so much attention, and is said to be unrivaled in the list of chrysanthemums throughout the world. To this Mrs. Hardy's name has been given. It is of a pure white color, very large, and has incurving petals. On the outer ones are found small but distinct spines. Great pains have been taken by florists to discover its origin, and photographs of the blossoms have been sent to Japan, but at last accounts no plant producing such flowers had been found in that country.

Further biographical information on Joseph Neesima is available in Wikipedia at https://en.wikipedia.org/wiki/Joseph_Hardy_Neesima and it provides very interesting reading.

The parent plant of Mrs Alpheus Hardy was purchased by Pitcher & Manda of Short Hills, New Jersey, who paid \$1,500 for the parent plant—at the time, the highest price that had ever been paid for a Chrysanthemum.

Here are some other photographs of pictures in the book, which gives some idea of what chrysanthemums looked like in the 1800s.



Tokio and Lancinatum



Medusa



Kioto



Moonlight



Lilian B. Bird



King of the Crimsons

Perhaps some of you have a copy of this book, handed down lovingly from parent to child.

In anyone should wish to compose a poem to one of their favourite chrysanthemums I will be happy to publish it in a future Newsletter. Here is one that may inspire you, as yours could surely be no worse.

*To the **Seatons Galaxy*** (Apologies to Don McLean. Sing along if you know the tune.)

*Starry, starry night
Purple blooms that brightly blaze
Falling petals in violet haze
Reflect in Ronald's eyes of china blue³
Colours changing hue
An Elegance sport of uncertain pink
An Other sport named White methinks
All created by the breeder's loving hand*

*Now I understand
Etcetera, etcetera, etcetera ...*

As you can see it falls away badly after the first three lines. As a result I feel that a haiku is in order.

*To **The Last Chrysanthemum***

*Golden gentleman,
Noble and hardy; perchance,
a witless dreamer.*



³ I am not sure whether Ron's name is really Ronald or what colour his eyes are; poetic licence.

Mentors

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Forthcoming Events

WACS General Meeting – Tuesday 12th November 2019, John McGrath Pavilion at 12 noon. Entry from Hensman Rd, South Perth
WACS Committee Meeting – Tuesday 19th November 2019, 13 Bandin Place Maida Vale at 10am.
WACS Annual Show incorporating the Australian Championship – 7th to 9th May 2020, Hawaiian Forrestfield Shopping Centre, 20 Strelitzia Ave Forrestfield

Website

www.chrysanthemumwa.com

Facebook Page

Western Australian Chrysanthemum Society

www.facebook.com/groups/chrysanthemumwa/

ACROSTIC PUZZLE - Solve the clues. Each letter has a code number. Then solve the quote.

1	8	10	9	11											
2	23	12	5		15		16	10	11	15					
3	7	10		9	4	3	21	5		19	3		5	14	
4	13		5	18		10	20		9	2	3		15		
5	8	18	13		18		23	11			10	2	3		
6	17		19	12		16	4	10		7					
7	11		10		12	7		1	10		10	14			
8	2		7	23		4									
9	9		18	22	3	1		18	21	21		15		11	
10	21	19	3	18	17	10	20	3	19		3	15	15		
11	6		9	2	3		11	15	13		2				
12	15	12		23		9	16	3							
13	16		8	10	18		10		1	19		5	20		
14	5		15	10	19	7	18		16		17				
15	19		21	5	13	1	3		15						
16	3	14		19		12	19	17	18		10	19	4		
17	11	15		1	1		19	18							
18	18	23	23	3		11	18		4						
19	3	17	18	15	12	19									

Clues

- 1. Western Australian Chrysanthemum Society (abbrev.)
- 2. Californian dormant volcano, Section 1 W cultivar
- 3. wife of Australian breeder Bruce, Section 1 Y cultivar
- 4. wife of Thomas, Section 2 W cultivar from 1915
- 5. Len's father, Section 3 Pu cultivar
- 6. wife of WACS Life Member, Les Smith, Section 7 cultivar
- 7. Ron's most famous creation, Section 10 Pu cultivar
- 8. WACS President for 29 years
- 9. WACS Patron for 40 years
- 10. the mother of chrysanthemums in WA; and Nell
- 11. renowned WACS grower of Cascades and Charms
- 12. New Zealand breeder of Anemones
- 13. major supporter of WACS annual shows 2015-2020
- 14. untainted
- 15. scintillating
- 16. astounding
- 17. bewildering
- 18. enormity
- 19. what a guy!

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	Z 24	Q 25	B 26

fill in the 26 alphabet letters according to the code numbers

4	12	5		6	5	11	15		13	12	22	3			
1	19	12	8	18	7	1		9	16	19	4	11	18	3	11

solve the quote