

ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

THE AUSTRALIAN DAISY STUDY GROUP NEWSLETTER NO. 16

Dear Members,

You will be pleased to learn that the manuscript is now safely in the hands of the Publisher to the great relief of all concerned.

The Publishing Manager of Lothian, in her acknowledgement of the manuscript, described it as "one of the most clearly and attractively submitted manuscripts I have ever seen". Praise is therefore due to Joy Greig, for her excellent presentation of the manuscript and for all her efforts on our behalf.

I would also like to give thanks to:-

Judy, for her strenuous efforts as Editor;
Barbara, whose logical mind made things of a biological nature seem very simple;
Esma, for her research into the evolutionary side of daisies;
Joy & Alf for doing everything that we asked of them;
Gloria, Kathy and Betty for their excellent line drawings. I am looking forward to seeing them in print.
John Colwill for sharing his expert knowledge with us on the W.A. annuals and for the loan of many beautiful slides.

Thanks to everyone else for producing their best slides. These were very much appreciated and I am sorry that we couldn't use them all.

To Jeff Irons (U.K.), interstate and other members, thank you all for your co-operation when asked and for your valuable contributions. I hope you will be pleased with your book when it comes out. Unfortunately, we have recently learned that the release date may be a little later than we first thought. Projected release is now around August, 1987.

JINDABYNE TRIP - JANUARY 11th - 25th, 1987.

Our annual alpine hiking trip looking for daisies is on again next year. Accommodation is now fully booked at Ski-Lib, 67 Townsend Street, Jindabyne from 11th to 25th January, 1987. Would members please note that this accommodation does NOT include bed linen, tea-towels or food items. However, blankets, pillows, cutlery and crockery are provided.

Other accommodation is available at the local Caravan Park. If staying there, please make contact with us at Ski-Lib for details of day's outings and other activities.

INDEX:

As promised, an Index of the 1986 Newsletters Nos. 14, 15 and 16 is included with this issue.

NEXT MEETING:

Our final group meeting for the year will be held at the home of Barbara Buchanan, "werona", Regnans Road, Kallista (Telephone No. 750 1428) on Tuesday, 2nd December at 11 a.m. Would members who are attending please bring a luncheon plate. Cars will be leaving 88 Albany Drive at 10 a.m. if you would like a lift.

NEW MEMBERS:

A warm welcome to the following new members. I hope you will enjoy your association with us:-

Desiree Dainton, Tania Shiells Shepparton; Greg Jacobs, Ringwood; Bonni Reichlt, Eld.

BRACHYSCOME HETERODONTA:

My apologies for the error made on Page 15 in the last Newsletter on the naming of Brachyscome heterodonta. A correction note is attached for you to paste over the said article.

A check by Judy of all her publications has revealed the following for your further information:-

The two varieties will be known to the Study Group as:-

B. heterodonta var. heterodonta (white rays)

B. heterodonta var. A (yellow rays)

Jacobs and Pickard in Plants of New South Wales (1981) list B. heterodonta as B. heterodonta DC. var. heterodonta and include the following synonyms:-

B. calocarpa F. Muell., and B. marginata Benth. var. marginata.

B. heterodonta var. A is the name listed for the yellow-rayed variety and the following synonyms are included for it:-

B. marginata Benth. var. chrysoqlossa (F. Muell.) G.L. Davis, and B. chrysoqlossa F. Muell..

The study group is following Jacobs and Pickard for the time being, but we hope that a revision might reinstate var. A as a species, which would then become known by some other fascinating name.

There has been a lot of confusion over these names in the past, and now Stanley and Ross in their Flora of South-eastern Queensland, Vol. 2, have tossed Brachyscome dentata Gaudich. into the ring. They list B. heterodonta DC., and B. marginata Benth. as synonyms. The only thing Bentham has to say about it is "B. dentata, Gaud. in Freyc. Voy. Bot. 468, too imperfectly described for identification, is referred by DC. with doubt to Vittadinia".

As Maureen says, we will await the outcome of further work on this species with interest. I used to regard all this name changing with distress and irritation, but, since reading Max McDowall's excellent articles on the subject in SGAP Vic's Newsletters, my opinions have altered. Now it seems to be all good fun and intensely absorbing. This interest could become a hobby (like collecting little bottles) - "the pursuit of the name change, and which botanists have the status to prevail!" I'm sure Max is already involved. If a yearly bulletin could be put out by some national botanical authority on the latest accepted nomenclatural changes for all Australian genera, my cup would be overflowing.

REFERENCES:

Jacobs, S.W.L. and Pickard, J. (1981) Plants of New South Wales, A census of the Cycads, Conifers and Angiosperms, Government Printer, Sydney.

Stanley, T.D. and Ross, E.M. (1986) Flora of South-eastern Queensland Vol. 2, Queensland Department of Primary Industries.

Bentham, G. (1866) Flora Australiensis, Vol. 3, Lovell Reeve & Co., London.

McDowall, M.A. (Dec. 1984, June and Dec. 1985, June 1986) Newsletter, SGAP-Victoria Incorporated. Those 'Name Changes' and Why.



Prior to their trip to Central Australia earlier this year, Esma & Alf visited the Australian National Botanic Gardens, Canberra, and after seeing *Helichrysum bracteatum* 'Princess of Wales' wrote suggesting that we should mention this worthy hybrid in our book.

Not knowing anything about this 'worthy hybrid', we immediately contacted Geoff Butler for information and not only did he send us some rooted cuttings, but also enlightened us with the following details:-

HELICHRYSUM BRACTEATUM 'PRINCESS OF WALES':

ORIGIN:

Helichrysum bracteatum 'Princess of Wales' is a presumed hybrid between two forms of *H. bracteatum*. The cultivar arose in cultivation at the Australian National Botanic Gardens in Canberra and was selected by an employee at the Gardens, Mr. P. Ollerenshaw. The two parent forms involved are the annual multicoloured form and the perennial form known as *H. bracteatum* 'Dargan Hill Monarch'. The form was selected in summer 1983.

DESCRIPTION:

This cultivar grows into a compact, dense shrub 0.6 metre tall by 0.6 metre wide. The leaves are mostly glabrous though the midrib is covered with a fine mantle of silky hairs. Some scattered silky hairs occur also along the leaf margins. The younger stems are covered in a dense coat of similar silky hairs which diminish as the stems become older. The leaves average between 5 and 9 cm in length. The flower heads average 5 to 6 cm across. The outer involucral bracts are about 2 cm long while the rays of the inner bracts average 1 to 1.5 cm long. Both are a rich gold in colour. The stigmas are orange colour when they emerge. The flowers are on long stems that emerge well above the foliage. The flowering season in Canberra is from October to April, but occasional flowers may be found all year round. The flowering period should not be markedly different in other parts of Australia.

DIAGNOSIS:

This cultivar may be distinguished from the presumed parent forms by the following features. The cultivar has the perennial habit of *H. bracteatum* 'Dargan Hill Monarch' but lacks the greyish appearance provided by the fine silky hairs. This perennial habit differs from the annual habit of the other presumed parent form. The main distinguishing characteristic is in the cultivar's flowering habit. As flowers die the stem withers and the whole flower stem and dead flowerheads disappear into the lower foliage of the plant. At the same time new growth emerges from lower on the plant and extends above the foliage again. These new stems then bear new inflorescences. The cultivar is also very free-flowering.

OTHER NOTES:

This free-flowering habit together with the growth habit of "hiding" the spent flower heads make this a very desirable plant for cultivation. The cultivar is named in honour of Her Royal Highness the Princess of Wales on the occasion of her visit to the Australian National Botanic Gardens on 7 November, 1985. The cultivar is frost hardy and moderately drought hardy. (Note: A very severe frost (ca -9°C) severely affected the plants here. This frost occurred after a relatively mild period of weather and the plants had probably not hardened up sufficiently. G. Butler). The cultivar must be propagated by vegetative means to preserve the cultivar form. Cuttings may be obtained from plants at almost any time of the year.

COLOUR CODE: R.H.S. COLOUR CHART 1966.

Involucral bracts and rays of the inner bracts:

Yellow-orange Group 14A.

Stigmas of flowers:

Yellow-orange Group 23A

REFERENCE SPECIMEN:

Accession number 359. Cultivar received by the Authority on the 26 March 1985. Applicant is the Australian National Botanic Gardens.

BILL MULHAM - AN APPRECIATION (cont'd.) - JUDY BARKER

In Newsletter No.13 I started to describe the performance of seed kindly sent by Bill Mulham from the western New South Wales region. Since that time he has generously sent us more seed. It has been very exciting to test its germination this year and to try plants in the garden because much of his seed is new to us, and many of the forms are quite different from those we have grown in the past. I will proceed with the description of more species and hope this will be a long-running saga.

Helipterum moschatum Musk Sunray (Vic., NSW., Q., SA., NT.)

Seed from Yathong, 1983, germinated poorly in autumn '84 in sand/vermiculite with a light sand cover. In the following autumn another batch was sown in the same medium, but this time on the surface. Germination was improved and I had about a dozen plants to observe. In my sandy loam they grow with a bushy, but straggly habit to 44 x 60 cm. The grey-green foliage is aromatic when crushed, and small, soft, pale yellowish heads in terminal clusters, about 1 cm across, are produced in late spring and summer. The leaves have stem-clasping bases and measure 10-25 x 2-5 mm. The lower leaves are oblanceolate, but up the stem they become lanceolate and narrower.

The following spring many small plants regenerated naturally from seed.

This species did not seem to have much horticultural potential. It could not even be designated 'a dear little thing', so probably falls into the category of 'helipterums I have known'.

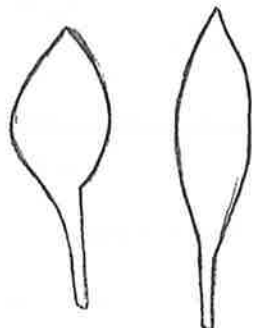
Helipterum molle Hoary Sunray (Vic., NSW., Q., SA.)

Seed germinated well when sown on the surface of a perlite:peat (3:1) seed mix in autumn. Seedlings were noticed after 4 days and seed continued to germinate for 24 days after sowing. I pricked out that batch of seedlings and put the pot back. A few more seedlings appeared over the following winter and spring.

As is so often the case, the performance of this species in the wild far outstrips that in the garden, but we hope to rectify this by growing from seed collected in our gardens in future. In early September, 1983, golden sheets of H. molle covered McCulloch's Range between Wilcannia and Cobar. Plants grew in robust clumps, mostly 30-35 cm tall, branching near the base and having soft, grey-green leaves. Each clump had 40 to 50 single, golden-yellow heads, 2-3 cm wide, held well above the foliage. It is a different story in my garden, I have open, rather straggly clumps with thinner, weaker, more branched stems. The heads are 1.5-2 cm in diameter, but they are very bright and they wire well. My plants were not put in the ground until late this year and I believe they would have performed better had they been planted in July. I think the hot weather adversely affected them before the roots had settled down.

H. molle is usually described as an annual, but Howie Marshall at Nathalia in Victoria has a beautiful, large clump in his garden which has lasted at least two years. Ngaire Turner also makes this claim of a somewhat smaller plant in her garden at Monbulk. Paul Wilson, from the Western Australian Herbarium, has expressed the opinion that it may be a short-lived perennial if given the right conditions.

This species certainly has potential in the garden. The flower-head looks very like that of the yellow Helipterum albicans in that it has several rows of yellow, radiating involucral bracts, but it is not as big. The intermediate bracts of H. molle are broadly ovate to almost round, the leaves are broadly linear to oblong or lanceolate and the achene is usually very papillose. By contrast, H. albicans var. albicans has intermediate bracts which are ovate to oblong or lanceolate, the leaves are linear or grass-like, and the achene is usually smoother.



H. molle H. albicans var. albicans

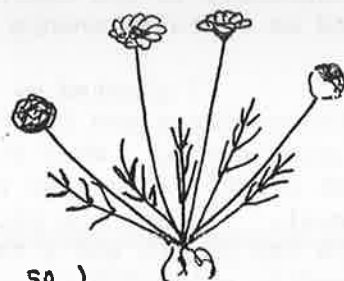
Intermediate bracts.

Brachyscome lineariloba Hard-headed Daisy, Dwarf Brachyscome (Vic., NSW., SA., WA.)

I have tried to germinate seed from various sources without success. Bill's seed from Hillston, collected in October '83, fared no better. Maureen (also known as Eagle-eye) found seed of this species on the South Australian coast in January '85. She painstakingly separated the seed from the heads and sowed it, but it did not germinate. The following year she sowed a number of seed heads on the surface of her mix. Four seedlings appeared after 6 days and she potted on 23 seedlings after 70 days. One month after the first sowing Maureen broke some heads up and again sowed on the surface, but this time only 4 seedlings resulted. We wondered whether the protection afforded by the head kept the seed moist and allowed it to germinate.

In due course I was presented with some little pots, each with plants about 1 cm high, tipped with a white head, 0.5 cm across. After some time in my garden these plants are now in seed, and are all of 2 cm high - stiff, dear little things, with about 4 seed heads per plant. This little annual has a very apt common name. The seed heads are like hard, furry, brownish buttons and the seed must be winkled out with tweezers or a knife. The most mature achenes are easy to overlook, so closely do they cling to the inside of the bracts.

The deeply-divided leaves are mostly basal, hairless, and have six to nine lobes above the centre. There is quite a degree of variation in B. lineariloba because the number of chromosomes in this species varies. This is reflected in the wide range of plant heights, ray lengths and leaf sizes.

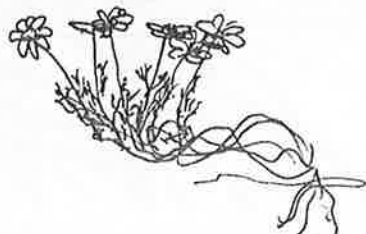


Brachyscome campylocarpa Large White Brachyscome (NSW., Q., SA.)

Bill sent this seed in late 1985. Because the seed head is dense and furry, and seed hard to dislodge (like that of B. lineariloba) we regarded it with a certain amount of suspicion. Needless suspicion, as it turned out.

I sowed the heads on the surface of perlite:peat (3:1) in mid-March '86. It started to germinate in 14 days and within 30 days there were about 50 seedlings in the pot. Maureen also sowed the heads on the surface in pure sand in mid-March, but germination was poor. In mid-April she broke up the heads and again sowed on the surface, this time achieving good germination. It is difficult to interpret these results. We should repeat these trials next year with more controls. I am sure I have had better germination in the perlite/peat mix than my previous sand/vermiculite mix. However, the bog method cannot be employed because algal growth appears too quickly.

B. campylocarpa is an excellent, small garden plant. It is said to be an annual and there may be no great attraction in a white annual, but if it proves to be a perennial in our luxurious conditions there may be no holding it. Even as an annual it impresses me. It makes a reasonably robust, rounded, branching plant, 20 x 18 cm. The leaves are hairless except for a small patch of hairs at the junction of leaf and stem. Leaves occur at the base and up the stem and are up to 11 cm long. They are singly or doubly pinnatisect and have stem-sheathing bases. The heads are large, 2-3 cm across, borne singly at the ends of long stems, about 20 cm long. My plants have been flowering since August (when they were still in the seed mix) and show no signs of flagging in mid-November.



I have been delighted to note that B. campylocarpa likes the salt-laden, gale force winds and clay soil provided for it at Fairhaven on the south-west coast of Victoria. Down there plants produce strong, red stems which lie on the clay in a tangle. About 12 cm away from the roots, the flowering stems rise up to put on a great show.

We would all like to thank Bill again for his generosity. The success of the Study Group is due in large measure to the range of species we are able to trial and to the experience we are constantly gaining.

A new edition of Plants of Western New South Wales has now appeared on the market. Although it is expensive it is worth every cent and is one of my favourite and most used books. We wish it well.

... to be continued.

MY FAVOURITE DAISY - BEV. COURTNEY.

When I first joined the Daisy Study Group, my one claim to fame was Brachyscome multifida and since every man and his dog grows it, I thought I had better rush out and buy some more daisies so as not to appear too green to fellow group members.

Unfortunately, all the local native nursery could come up with was a very old, woody and bedraggled specimen of Helichrysum apiculatum, which had definitely seen better days. Then my eye lighted on a mass of delicate white flowers with clear yellow centres. They looked like daisies; they felt papery; it had to be a paper-daisy! The label said Helipterum roseum, but this wasn't like the pictures of H. roseum 'carpeting the arid interior' I had seen in books. I knew H. roseum was an annual and this had a woody stem. 'No - that's right - you can cut it back' said the nurseryman in answer to my query. So, still doubting, I carried my prize home and out to my first study group meeting at Maureen's. Pot in hand, I knocked timorously at the door. 'Oh, you've got an anthemoides' were Maureen's first words and so my relationship with Helipterum anthemoides was born.

I planted my daisy in a wooden planter-box in sieved local clay-loam soil, with peatmoss and blood and bone added. The box is on my front porch in full sun facing north. When it had finished flowering and I had collected seed (disappointingly, not a lot), I noticed new succulent growth coming from the central woody stem at ground level. I took the plunge and cut off all the current season's growth leaving only the new growth and a few woody stems. (Cuttings taken from the prunings struck very readily with 100% success). The new stems grew rapidly and during the next few months I trimmed them all over with scissors two or three times, until I had a soft, compact little cushion 30-40 cm high and wide. I stopped cutting in late autumn, being afraid of losing developing flower buds and sure enough these began to appear in June; a lovely wine-red colour. It is now August, the flowers are fully open in the late winter sunshine and it looks a real picture. The growth is cascading over the sides of the box; on flat ground it would be nearly a metre wide. New growth is already appearing in the woody centre and again I will cut back to this when seed is collected. I grew on my cuttings and germinated seed and I now have seven plants dotted throughout the garden - not as big yet, but producing much favourable comment.

No doubt I will discover other equally beautiful daisies through my involvement with the study group, but Helipterum anthemoides will always have a special place in my garden.

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Other daisies chosen by members appear to be those which self-sow readily in the garden and those which flower most of the year.

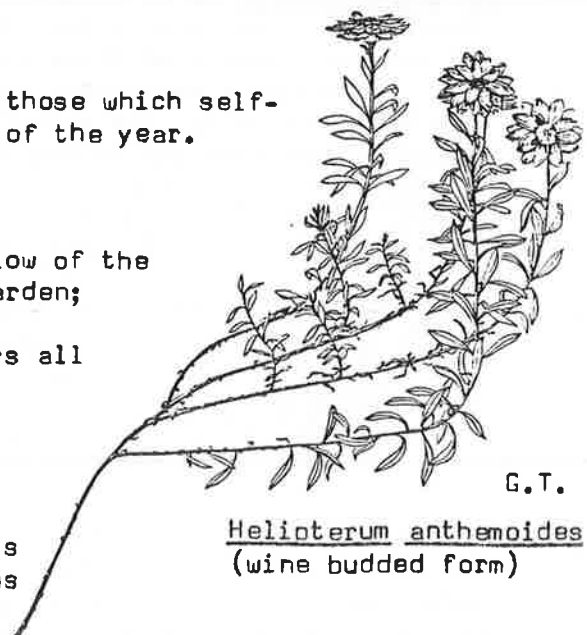
Thelma Wallace's three favourites are:-

Helichrysum subulifolium because of the bright yellow of the flower heads and its ability to self-seed in the garden;

Brachyscome multifida in all its forms as it flowers all through the year and always looks so good;

Helichrysum apiculatum with its many variations in leaf textures and the lovely small yellow heads.

Another member who is fond of H. apiculatum is Gloria. She has been growing two different leaf forms for ten years. A favourite she has had for six years is Helichrysum semipapposum. This plant self-sows, suckers and can be propagated quite easily by cuttings or division. Helipterum roseum grows en masse in her front garden providing a beautiful floral display each year from self-sown plants.



Helipterum anthemoides
(wine budded form)

FAVOURITE DAISIES CONT'D.

Olearia phlogopappa is favoured by Shirley Dixon as this shrub provides her with a ready supply of self-sown plants, which she pots on to give to friends. Helipterum manglesii and Helichrysum subulifolium also provide the same bonus, with the yellow flowers and lush green foliage of the latter making a good colour contrast in the garden.

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OLEARIA ALGIDA:

This alpine Olearia with tiny white flowers has never come up to expectations in my garden until recently, when I found that it had propagated itself in a very easy manner by layering. What could be easier when my success with seed is limited. Maybe Jenny, who will be concentrating on Olearias next year, will try layering with other species and let us know if they are all just as easy to propagate.

Grafting is another method worth trying, especially on those hard to grow Olearias. I am looking forward to hearing how Pat Shaw's husband is progressing with his grafting of Olearias in Qld. We do need someone in Victoria to try also. I am hoping Alf will find the time in 1987 to give this project a go.

Since our last Newsletter, others have offered to study the following genera:-

Bev. Courtney is keen to grow many different forms of B. multifida because of their hardiness and long flowering period.

Joy Greig has intimated that she would like to collect true forms of Helichrysum bracteatum, particularly from specific areas. This would be a nice change from all those hybrids being grown by members at present, including myself.

Judy, who visualises having plenty of spare time now that the book is finished, has already started on her collection of Helichrysum semipapposum and H. apiculatum.

Cutting material or seed would be very welcome of any good forms of the above, growing in your area.

I will look forward to hearing from you all in due course about each genera you are studying and I would be particularly interested to hear about those species which have horticultural potential or other outstanding features. A potted collection for use at Flower Shows etc. would also be of great benefit to the group.

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ORGAN PIPES NATIONAL PARK:

Many thanks to Judy, Bev. and Jenny for their assistance in helping me propagate daisies for the Organ Pipes National Park regeneration programme. With seed supplied from the area, we were able to propagate over 100 plants of Craspedia chrysantha, Podolepis jaceoides and Calotis scapigera for the park, thus fulfilling one of our aims - helping in regeneration programmes.

ANGAIR SHOW, ANGLESEA:

Judy and I presented a small display of daisies at the Angair Show in September, and although the weather wasn't exactly tropical, it didn't deter people from attending. Seed sales brought in \$126.69 after commission to Angair. Thanks to Jenny for joining us on this week-end to help with seed and plant sales. A letter has since been received from Miss Mary White, Hon. Secretary of Angair, thanking us for our efforts and enclosing a donation of \$20 towards group funds.

SUBSCRIPTIONS:

1986 SUBSCRIPTIONS ARE NOW OVERDUE. A LARGE RED CROSS means you are now an unfinancial member and this will be your last Newsletter unless payment of \$3 is received. Cheques to be made payable to the "Australian Daisy Study Group".

Receipt is acknowledged of the following subscriptions for 1986:-

Pine Rivers SGAP	Burrendong Arboretum	Jeff Irons
Keilor Plains SGAP	Thel. & Bruce Wallace	Bonni Reichelt
SGAP Vic. Inc.	Gwenda Macdonald	Tania Shiells
Foothills SGAP	Barbara Daly	Greg Jacobs
Canberra SGAP	Val McConchie	Owen McCall
Mary McKay	Ngair Turner	Tom Chalkley
Desiree Dainton	Bob Mylius	Joy Cook

Please note that due to a recent rise in postage costs, SUBSCRIPTIONS IN 1987 will be INCREASED TO \$5.00 PER YEAR (\$10.00 OVERSEAS).

DONATIONS:

Your donations are greatly appreciated and I thank you once again for your generosity.

Owen McCall	\$7.00	Desiree Dainton	\$2.00	Tom Chalkley	\$2.00
Bonni Reichelt	7.00	Keilor Plains SGAP	1.00	Bob Mylius	2.00
Jenny Kelso	5.00	Pine Rivers SGAP	2.00	Gwenda Macdonald	2.00
Lyn Millington	10.00	SGAP. Vic. Inc.	2.00	Val McConchie	2.00
Bev. Courtney	4.00	Canberra SGAP	2.00		
Angair Inc.	20.00	Mary McKay	2.00		

SEED DONORS:

Thanks to the following for their donations of seed:-

Jeff Irons, Howie Marshall, Jenny Rejske, Esma Salkin, Bev. Courtney, Pat Shaw.

Additions

Deletions

Brachyscome spathulata
 Celmisia asteliifolia
 Erodiophyllum elderi
 Helichrysum rosmarinifolium
 Helipterum anthemoides (wine budded form)
 Myriocephalus stuartii
 Olearia phlogopappa

Helipterum sp.aff. cotula

HERBARIUM:

I was very pleased with Alf's offer to take over the Herbarium and accepted most gratefully. This important job is one I have been neglecting in the past.

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Thank you for your contributions to the newsletter over the past twelve months. These articles have been greatly appreciated.

Wishing you all much happiness at Xmas and the New Year. See you at Jindabyne.

All correspondence and requests for seed, enclosing stamped self-addressed envelope to Leader:-

Maureen
 Mrs. M. Schaumann
 88 Albany Drive,
MULGRAVE. 3170