

Dear Members,

The Group's first Field Trip to Mt. Buller proved to be a great success. Driving there on the Friday and seeing the countryside so bare and dry, made me despair of ever finding any plants at all, let alone flowers. What a delightful surprise we had when we started to climb the mountain to see hillsides clothed in bright yellow daisies and lovely white Cassinias. Members must have been greatly inspired, as I have received the following 'short story' together with two poems. Didn't know we had any poets in the Group. Another Group Activity to add to the list.

A SHORT STORY OF A LONG WEEK-END: Joy Cook

Australia Day week-end and I personally thought the Cook family was entering into the spirit of our National week-end by going bushwalking in search of those elusive, but very alluring, little Australian native plants, Brachyscome & Helipterums.

Comment has been passed that we have cultivated very few from either genus that are known to exist. Therefore, if they are to be brought into cultivation, one must first discover where they grow and under what conditions.

Brachyscomes and Helipterums cannot be spotted from a great distance, one virtually must be in the field as their delicate beauty could easily be missed when passing in a car. Unless of course one has been fortunate enough to have been inland after a good rainfall and seen first hand the acres of wildflowers that are said to appear.

I was inclined to believe they were very hard to find indeed, but once their habitat has been located, their colour and delicate beauty holds the enthusiast somewhat mesmerised and oblivious to blistered feet as one walks on, always hopeful of coming upon another gay array of colour in our normally subtle bluish, grey, green forested landscape.

The challenge and determination to grow Brachyscomes and Helipterums doesn't begin and end in the potting shed, for some members of the Study Group have found it very beneficial to take up bushwalking and note the conditions under which many of these plants grow in their natural habitat, thus alleviating the loss of many plants through bad positioning in gardens.

On Saturday the 29th Jan. a robust group of members set off on the return walk from the Ski-Village at Mt. Buller to the Summit of Mt. Stirling. Not far from the village, growing on the disturbed ground alongside the track, we found *Helichrysum scorpioides*, *acuminatum*, two species of *Senecio*, *Craspedia glauca* and *Olearia phlogopappa*. Flowering profusely amongst the golden heads of the *Helichrysums* and *Craspedias*, the mountain *Wahlenbergia* offered a striking contrast with its vivid purple flowers. *Stylidium graminifolium* was also abundant in this area.

A detour along the way to walk up the Cornhill track was well worth the extra walk, as it was along this track that we spotted our first Brachyscome. Growing happily in a clearing amongst the *Craspedia*, *Podolepis robusta* and *Microseris scapigera*, were numerous plants of *Brachyscome aculeata*. A little further along we found *Helichrysum secundiflorum* attaining the height of approx. 180 cm. The *Helichrysum* family ranges from small herbaceous plants to large woody shrubs.

We returned to the main track and headed on towards the summit of Stirling. Visions of a hue of wildflowers urging us onward and upward. There were few species in flower along the track up to Stirling, but the freshness of *Prostanthera cuneata* captured my senses as I brushed against it. A predominant plant in this area is *Hovea longifolia* var. *montana*. Although this was not in flower, my mind conjured up visions of what I thought would be a spectacular sight, masses of rich purple flowers resting amongst the green foliage. Other plants growing in this area were *Olearia phlogopappa* var. *subrepanda*, *Pimelea ligustrina* and either *Baeckea utilis* or *gunniana*.

Imagine our disgust upon nearing the summit to find it devoid of colour other than the restful soft grey greens of alpine grasses, and a herd of cattle grazing lazily in the early afternoon sun. Not to be deterred, we continued upwards towards the cairn, where we had intended to eat our lunch, when Maureen, her ever sharp eye always scanning the ground surface, let cry these characteristic words, "look, here's one!" Members who had previously had their heads in the clouds admiring the view, or butts on the ground recovering from the climb, quickly congregated around to inspect the find. "Could it be a form of *Brachyscome nivalis*? Lovely white flowers. No! They are always white and here is a blue one. Oh, look over here, a deep mauve one. Do they all have the same foliage?" All this conversation and camera clicking was of little concern.

to the cattle, but we were concerned with the cattle, as we were all in that familiar pose of heads down and tails up. A sample of the plant was taken, later that evening to be identified as *Brachyscome scapigera*.

We descended by a rough track to be rewarded with some *Celmisia* plants growing happily amongst the rocks. Further down a magnificent specimen of *Podolepis robusta* was found and photographed to prove to would be doubters that there are flowers "in them there hills".

We all returned safely to the village and spent an informative evening discussing species found, and peering down a microscope at *Brachyscome* achenes.

May I comment that being with a group of people all sharing a common interest, made the learning of names and understanding of botanical terms so much easier.

Sunday morning we walked to the summit of Mt. Buller looking for a species of *Brachyscome* that had been spotted the previous year, and was thought to be the true form of *B. rigidula*. Several members had purchased plants from Nurseries in previous years labelled *B. rigidula*, but Maureen & Judy felt they were a pink form of *B. multifida*. (This was later proven correct).

We were pleased to find the flowers were out in abundance, no cattle here, and we quickly ascended the slopes going from one splash of colour to the next. The Mountain Gentian (*Gentianella diemensis*) was in flower offering a soft contrast to the bright traffic light yellow of the globular heads of the numerous *Craspedias*. *Celmisias* were also found, and although most had finished flowering, a few had patiently waited for us to arrive before their petals wilted and seed was set ready for another year. Once again they were found growing sheltered amongst the rocks. A thought to keep in mind if one tries to grow these beauties in the home garden.

Along the ridge we were delighted to find the *Brachyscome* we had come searching for. We were fortunate enough to obtain a little ripe seed to identify, and confirm the doubts that had arisen over this species.

Helipterum albicans was found on the slopes (also *Helichrysum semi-papposum*) so different from the form I had seen growing at Lerderberg Gorge last year. The pilular heads were much larger than the species from Lerderberg. The foliage a soft grey and tomentose, a sharp contrast to the dark green linear leaves of the Lerderberg Gorge form. The diversity of forms in this species proves how adaptable this particular genus has become to its specific environments.

The abundance of flowers in this area made us become quite blasé, and where earlier we were enthralled at minor shows of colour, we now walked past without a second glance. Shyly protruding from beneath the rocks we found *Brachyscome nivalis*, although not in flower we were familiar with the foliage, thus enabling us to recognise it.

In the afternoon we ventured to the area near Cofflers Restaurant where *Brachyscome scapigera* was found growing in boggy ground, also *Microceris*, *Craspedias*, *Wahlenbergia*, *Helichrysum hookeri*, *acuminatum*, *Prostanthera cuneata* and *Baeckea gunniana*, all combining to make nature's paint pallet, splashes of colour everywhere.

A plant I became very interested in in this area was *Baeckea gunniana*, a very aromatic species that heavily scented the air. I found it very hard to stop inhaling the perfume.

The plants in this area were teeming with butterflies and insect life, all busy pollinating and ensuring the continuity of our alpine plants.

The most spectacular sight of the whole week-end was a cliff face absolutely smothered in the soft grey foliage of *Helipterum albicans*, and to be privileged to have witnessed first hand the magnificent sight of those thousands of bright yellow flower heads massed on the plants, made me come away even more determined to entice fellow S.G.A.P. members to grow these beauties and brighten up suburbia.

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Thank you Neil for leading the pack up and over all those mountains, and looking forward to many more mountain treks in the future in search of those 'elusive' daisies.

CORRECTION NOTICE:

Page 3 of November Newsletter first line. Please alter to:-

"The flower heads are 17-25 mm in diameter and not 17-25 cm. as stated".

(We will make a fortune when we can grow them this size).

NEW MEMBER:

We wish to welcome M/s. M.A. Beckingham of 91 Chatham Road, Denistone N.S.W. 2114 as a new member of the Group.

GERMINATION TRIALS WITH HELIPTERUM SPLENDIDUM:

JOHN PHILP

In the arid regions of Western Australia, rain falls in rather heavy but sporadic showers. Consequently, the growth of ephemeral species occurs during periods of heavy moisture content, and is completed quickly with the dispersal of seed.

Mott (1973) has suggested that this seed is always evident on the soil surface and germination usually occurs at the soil/air interface. In fact, many seeds e.g., Helipterum craspedioides have an obligate requirement of light for germination (Mott 1972). Where the soil and air meet, both moisture and humidity extremes exist, which may be enhanced by surface litter. This is of particular importance in the establishment of young seedlings and the penetration of the soil surface by the young root.

Sedgley (1963) and Harper & Benton (1966) have shown that germination is improved when a greater surface area was in contact with the substrate. Certain species possess adaptations which improve their soil contact, using mechanical means such as mucilage or hairs. For example:-

Helipterum craspedioides produces a mucilage layer up to 2 m.m. thick after wetting;

Helichrysum cassinianum has hairs up to 5mm. in length which spread out when wet.

Both of these characteristics have the effect of holding the seeds onto the soil surface in the highly humid soil/air interface.

Without being buried, the seed has little ability at imbibing water for germination. Probably, hairs and the fluffy pappus help the seed away from inadequate moisture, therefore, negating germination possibilities. Light rain may not be sufficient to completely flatten seed onto the surface, and certainly wouldn't add to the soil water content. However, if heavy rain should fall, not only would the seed come into closer contact with the soil, but enough moisture would be made available to ensure that the germinated seed could reach maturity and set seed for future seasons.

Prior to reading the articles by Mott, I had attempted to germinate Helipterum splendidum using a method whereby the pappus was removed and the seed coat incised. This allowed a six-fold improvement in germination over peeled seeds and unpeeled seeds.

Details of experiment:-

<u>Helipterum splendidum</u>	Seed bank (1982)	Seed medium - sand, brown coal, scoria, lignite, trace elements, potash, hoof & horn.
Sowing date 12/09/82 - Germination date 17/09/82		
50 untreated covered seed 0	The seeds were watered with Ridomil solution.
50 peeled " " 1	
50 peeled & incised " 6	

An important point to make here is that incision may have damaged the embryo or encouraged infection. Many of the seedlings have shown some deformity. Perhaps this could be due to seed immaturity.

After consideration of Mott's articles, I decided to incorporate in an experiment the combination of heavy watering and light.

Details: Three trials were set up:-
untreated and buried seed;
peeled, unburied seed;
untreated seed pressed on the surface.

To peel the seed, the pappus was removed by grasping the seed between the thumb and forefinger of each hand and simply pulling apart. The brown kernel can then be easily separated from the remaining coat fragments.

High moisture content was maintained using intermittent mist, therefore, the surface was permanently wet. The containers were kept in an unheated greenhouse.

Germination resulted after 5-7 days in all but the buried seed. Peeled, unburied seed showed the best germination. Sporadic seedlings are still appearing.

References:

Harper, J.L. & Benton R.A. (1966). The behaviour of seeds in soil 11. The germination of seeds on the surface of a water supplying substrate. J. Ecol. 54 151-66.

REFERENCES CONT'D.

- Mott, J.J. (1972) Germination studies on some annual species from the arid region of W.A. J. Ecol. 60 293-304.
- " (1973) Factors affecting seed germination in three annual species from an arid region of W.A. 699-709.
- " (1973) Temporal and spatial distribution of an annual flora in an arid region of W.A. Trop. Grassld. 7 89-97.
- Sedgley, R.H. (1963) The importance of liquid seed contact during the germination of Medicago tribuloides Dess. Aust.J.Agric.Res. 14 646-53.

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LANDSCAPING:

Allan Foster from Sydney has advised that his most successful seedlings from last year were *Helichrysum bracteatum*, *davenportii*, *Helipterum splendidum* and *Brachyscome iberidifolia*. He admits, however, that when planting out he made the mistake of not planting in drifts, thus lessening their effect, and will plant more closely together in the future.

Allan has been using the old standbys in his landscaping work, i.e. *Helichrysum bracteatum*, *Brachyscome multifida* and *angustifolia*, as they are the ones most commonly asked for. He recently introduced both *Brachyscome ciliaris* var. *lanuginosa* and *Helichrysum davenportii* in a planting and received a very favourable reaction. When his knowledge and experience of the Asteraceae family increases, he hopes to introduce many more.

Congratulations Allan for experimenting with other varieties in your landscaping work, and thank you for letting us know of your results.

Are other landscapers in the Group trying anything different with success?

PLANT FOR THE MONTH OF MARCH

BRACHYSCOME HETERODONTA (LOBED-SEED DAISY)
(SYN. B. MARGINATA, B. CALOCARPA)

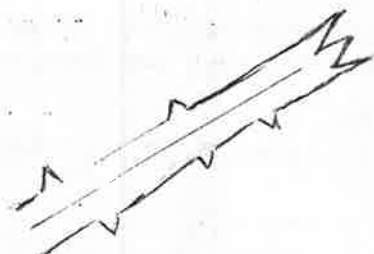
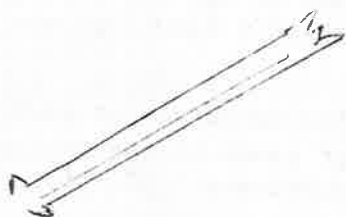
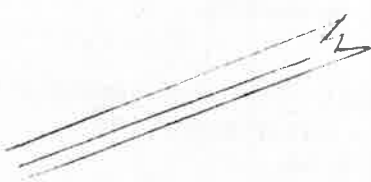
As I have only been growing *Brachyscome heterodonta* for the past six months, losing my best specimen whilst away at Xmas, I have been unable to gather as much information as I would like. However, Judy has kindly provided me with some data on her plants, and I will combine her observations with mine throughout this article.

Seed originally came from John Colwill (W.A.) with a note saying that it had been collected in Port Augusta, S.A., but remained unnamed due to lost records. Members in Melbourne were delighted to be given another species to identify, and at their 'Microscope' night found no trouble in recognising it as "*Brachyscome heterodonta*" (Lobed-seed daisy) referring to the particular shape of the achene. As it can grow to a height of 90 cm. it is also known as the "Tall white daisy".

I had one plant that was doing exceptionally well in the garden, bearing masses of blooms 2-2½ cm. in diam, when it began to droop and become straggly. I decided to prune rather heavily, hoping for a regeneration of growth from the base, and much to my horror the plant didn't recover. My only other plant is growing in a large pot and not looking particularly well. Flowers are much smaller 1-1½ cm. in diam.

Botanical description:

Weakly erect perennial to 90 cm. branching from the base. (I do not feel confident in saying that it is a perennial, it may prove otherwise). Light green leaves are variable, all sessile. Those furthest from the flower head mostly have three pointed teeth at the apex, and are variously pinnatifid 1.5 - 5 cm. long x 3-4 m.m. wide.



Nearer to the involucre the leaves become linear with acute tips and 1-1.5 cm. long. The last was 5 m.m. long, linear lanceolate and may have been a stem bract. Under the monocul the upper surfaces are slightly pitted, but not hairy. The lower surfaces have a few tangled hairs, especially on the mid-rib. The younger leaves do have more hairs on both surfaces.

Involucre is hemispherical. Receptacle is large, convex, hemispherical. Stems are white, woolly, especially when young.

Broad wings of achenes are irregular, deeply dissected and bluntly lobed; they are brown, flattened, approx. 3-4 m.m. long and almost as wide. Pappus is conspicuous

Cultivation notes:

Seed sown 25.5.82 germinated after 13 days, with the majority coming up in 22 days. Seedlings were transplanted into 5 cm. pots on 20.7.82 and into the garden by the end of August. Snails and slugs had a feast and I was left with only two which I then baited well. I have not tried propagating from cuttings, but it should be easy like most *Brachyscomes*.

Both my plants seemed to prefer part shade, but this could be due to extreme heat in Melbourne this summer.

Flowering stems are continually being eaten causing them to droop. I can't find any grub or insect but Pyrethrum spray needs to be used regularly.

It is well worthy of cultivation because of its long flowering period from spring until autumn, and can be quite showy when in flower.

According to Dr. Willis, *Brachyscome marginata* var. *chrysdglossa* differs from typical *B. heterodonta* only in its bright orange-yellow (not white) ray florets, a character unique in this genus.

Brachyscome heterodonta can be found growing throughout Western Victoria, N.S.W., A.C.T., Qld., & S.A. mainly in open areas or grassland.

Maureen

Judy's comments on her three plants are as follows:-

Beds all enriched with compost and manure. All in sun at least part of day.

1. 45 x 90 cm. Planted in early October, 1982. Very open and straggly now. Needs cutting back. Sun all day except mid-day. Flowered from early November to late January.
2. 51 x 50 cm. Planted in late October, 1982. (In December 23 x 54 cm.) Very sparse. Similar position to (1) but slightly more shaded. Flowered late November to early February.
3. 36 x 70 cm. Planted Nov. 1982 (In December 27 x 20 cm.) Nice upright form at first, becoming straggly as it grows. Afternoon sun. Flowered late January to February 16th (may go on longer).

Brachyscome heterodonta (1) was the most successful. Probably should be planted in August/September for best results. Should we tip prune for awhile after planting to make it bush a bit? It seems like a good intermingling plant.

Seed Sown; 24.7.82

Germination time: 20 days (4 seedlings - Didn't count how many sown)

Flower: In February, when it seemed to be getting smaller - 1.8 cm.diam.

Disc. 8 m.m. diam. Rays: 5 m.m.long Flower stalk: 6 cm.

No.Rays: 34

No. involucral bracts † 18. Bracts are white woolly.

Judy Barker

POETS CORNER:

We went to Mount Buller with glee,
The Asteraceae to see.
Found lots of Brachyscomes
Up in their happy homes
And talked of them interminably!

We climbed up Mount Buller next day,
Through daisies in lovely array,
To the music of birds
And Maureen's sweet words
"Here's a PINK one! Come quickly this way!"

We stayed at Mount Buller all night,
The Lodge was a bit of all right!
The daisies collected
Were promptly dissected
And studied by microscope-light.

And now it's the day to go home,
One last time through the daisies we roam.
The Helipterums gold
Are sweet pain to behold,
And we sigh over each Brachyscome.

We've shared fun and fresh air with each friend -
This CAN'T be the whole story's end.
With our own garden flowers
We'll create bushland bowers
As our thoughts to those mountains ascend.

"B.H.B" (Brachyscome/Helipterum Bard)

SUBSCRIPTIONS - \$2.00 PER YEAR.

Receipt is acknowledged of the following subscriptions for 1982:-

- R.R.O. & M.J. Turner 1982 and 1983
- S.G.A.P. (Victorian Region)
- Ross Field
- Eunice & Cyril Field
- Leila Huebner
- Prissy Martin (1983)

DONATIONS:

\$3.00

Sincere thanks to Victorian Region for this donation.
Very much appreciated.

Slides & drawings

Thank you Bob for your delightful Brachyscome slides and drawings. Bob has also commenced drawing all the Brachyscome achenes which will greatly assist us with identification of this genus. Copies of these drawings will be available to members when completed.

Slides

Thank you once again Judy for the extra slides and box to store them in.

GENERAL:

We would like to extend our deepest sympathy to Judy in the recent loss of her Mother.

Judy and her family were also effected by the bush fires which destroyed their home at Airey's Inlet on Ash Wednesday. I think it would be a nice gesture if members could put aside some plants when propagating to help Judy re-establish her garden again at Airey's. We could also help any other members in the S.G.A.P. who may have suffered through our devastating bush fires.

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We all hope Leila Huebner is feeling much better after her recent operation, and wish her a speedy recovery.

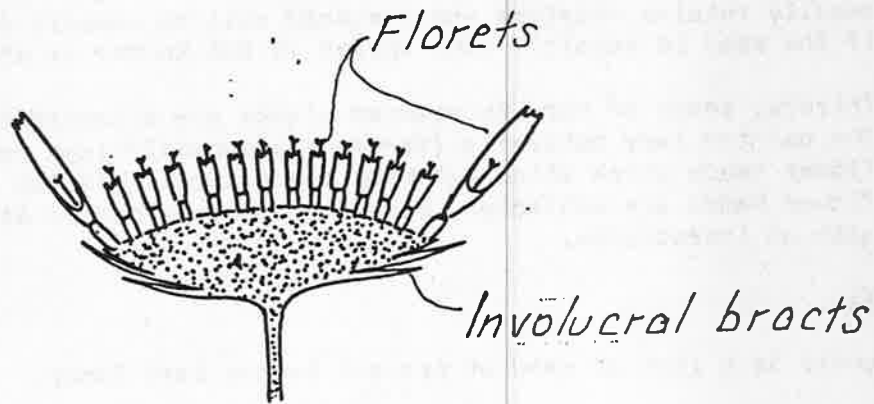
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I have received a letter from Gladys Holmes (Leader, Melaleuca Study Group) requesting me to thank members of the B/H Study Group for their generosity in contributing to the Book Fund Tasmanian Region set up to replace her books lost in a fire. You will all be pleased to know that the Fund was a great success and most of her books have now been replaced.

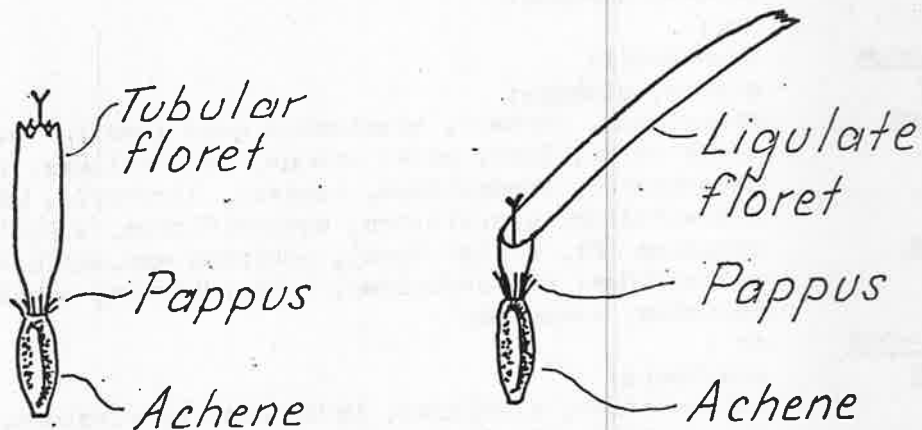
COLLECTION OF BRACHYSCOME SEED:

In Newsletter No.1, I promised to advise in a later issue how to collect Brachyscome seed, because I had found that with some species, it is not as easy as it looks. I have often had to tie paper bags around the head so I wouldn't miss it.

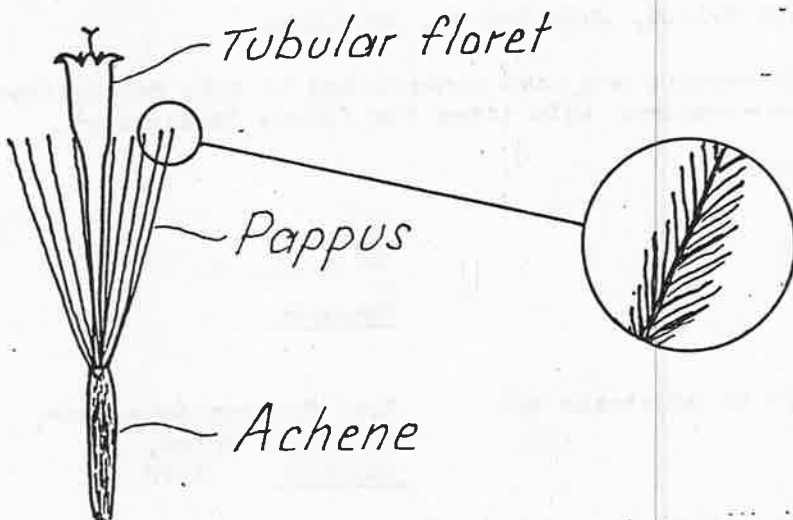
Finding mature seed seems to be another problem with this species. At one stage I found I was collecting dried disc florets, but am happy to report that I have improved a little since then. Hope the following drawing and article written by Bob Mylius will assist members who are not experienced in collecting seeds:-



SECTION OF HEAD
FIG 1



BRACHYSCOME ACHENES
FIG 2



HELIPTERUM ACHENE
FIG 3

COLLECTION OF SEED - BOB MYLIUS

Daisy seed is easy to collect. The seed is called an achene and usually has a feathery pappus (refer Fig 3) attached to it which assists it in its dispersal by the wind. The well known parachutes of dandelions are typical.

When the achenes become loose at the centre of the flower head, the seed is mature and ready to collect (refer fig 1).

There are three points to consider when collecting seed:-

First, take care that the dead florets are not mistakenly collected instead of seed. More likely to occur when the achene has little or no pappus. For example the Brachyscomes (refer Fig 2).

Secondly, do not collect seed in wet weather or just after rain. It readily retains moisture and the seed will be quickly destroyed by fungus. If the seed is possibly damp spread it out to dry as soon as possible.

Thirdly, seeds of many Asteraceae plants are attacked by caterpillars. The painted lady butterfly (*Vanessa kershawii*) lays her eggs in the flower heads where after hatching the caterpillars eat the seed. If flower heads are collected, separate the seed before storage and dust with an insecticide.

SEED BANK:

Hereunder is a list of seed at present in our Seed Bank:-

- Bellida graminea;
- Brachyscome aculeata, ciliaris var. brachyglossa, ciliaris var. lanuginosa, heterotonta, iberidifolia, nivalis, rigidula, scapigera, uliginosa;
- Calotis unnamed species;
- Celmisia sp.;
- Cephalipterum drummondii;
- Craspedia glauca, globosa;
- Helichrysum apiculatum, baxteri, bracteatum gold (small flowered form), large white, lime, pink, orange, gold colours, cassinianum, davenportii, dendroideum, hookeri, lindleyii, obcordatum, obtusifolium, scorpioides, secundiflorum, subulifolium;
- Helipterum albicans (Mt. Buller form), albicans ssp. albicans var. albicans, anthemoides, craspedioides, humboldtianum, manglesii, roseum, strictum, venustum;
- Leptorrhynchos sp.;
- Microseris scapigera;
- Olearia asterotricha, glutinosa, iodochroa, myrsinoides, phlogopappa mauve, dwarf white, pimelioides, tenuifolia, sp. Tas.;
- Podolepis robusta.

Thank you to the following members for their donation of seed:-

Nancy Fruedenthal, Bob Mylius, Judy Barker, Joy Cook.

Sincere thanks to all members who have contributed to this Newsletter and I would like to hear from many more members with items for future Newsletters.

Have a Happy Easter.

Maureen
Maureen

All correspondence should be addressed to:-

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

Requests for seed enclosing stamped self-addressed envelope to:-

Mrs. Joy Cook,
2 Lotus Crescent,
MULGRAVE. 3170

Seed or cutting material of the following Brachyscomes is available upon request:-

- Brachyscome aculeata (syn. B. scapiformis)
- " angustifolia
- " basaltica var. gracilis
- " ciliaris var. brachyglossa
- " " " lanuginosa
- " graminea
- " heterodonta (syn. B. marginata, B. calocarpa)
- " iberidifolia
- " sp.aff. melanocarpa
- " multifida (fine leaf form, coarse leaf form, Mauve light & dark, white
- " " variety dilatata
- " nivalis
- " parvula
- " readeri (Annual)
- " rigidula
- " scapigera
- " uliginosa (Annual)

- " Unnamed species from Menindee

Stamped self-addressed envelope is required with any request for seed. Any member requiring cutting material must bear cost of postage.

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Seed or cutting material of the following Brachyscomes is required to expand our knowledge of this genus. Can anybody help? Postage costs will be covered by the Group.

- Brachyscome basaltica - Perennial - Qld. N.S.W., Vic., S.A.
- " blackii " - W.A., N.T., S.A.
- " campylocarpa Annual - S.A., Qld., N.S.W.
- " cardiocarpa Perennial - N.S.W., Vic., S.A., Tas.
- " cheilocarpa " - W.A.
- " cillocarpa Annual - Qld., N.S.W., W.A.
- " curvicarpa " - Qld.
- " debilis Perennial - S.A., Vic., N.S.W.
- " decipiens Perennial - N.S.W., Vic., Tas., S.A.
- " diversifolia " - Qld., N.S.W., Vic., Tas., S.A.
- " exilis Annual - S.A., Vic., N.S.W.
- " glandulosa " - W.A.
- " goniocarpa " - Qld., N.S.W., Vic., S.A., W.A.
- " latisquamea " - W.A.
- " lineariloba " - N.S.W., Vic., S.A., W.A., N.T.
- " leptocarpa " - S.A., Vic., N.S.W.
- " microcarpa Perennial - Qld., N.S.W.
- " muelleri Annual - S.A.
- " obovata Perennial - Vic., N.S.W.
- " oncocarpa Annual - W.A.
- " perpusilla " - S.A., Vic., W.A.
- " pusilla " - W.A.
- " radicans Perennial - N.S.W., Vic., Tas.
- " segmentosa " - N.S.W. (Lord Howe Island)
- " stolonifera " - N.S.W.
- " tatei " - S.A., W.A.
- " tenuiscapa " - N.S.W., Vic., Tas.
- " tesquorum " - W.A., N.T., S.A., Qld.
- " tetrapterocarpa " - Qld.
- " trachycarpa " - S.A.