BRACHYSCOME/HELIPTERUM STUDY GROUP ISSN 0729-543X

NEWSLETTER NO.6 JUNE, 1983

S.G.A.P. QLD. REGION
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Dear Members,

Our last Study Group Meeting was held at the home of the Salkins, where Esma and Alf explained and demonstrated different methods of testing viability of seeds. Alf kindly followed this up by submitting a report of this Meeting for the information of all members not able to attend. Thank you Esma and Alf for sharing your knowledge with us, and also providing excellent articles for this Newsletter.

REPORT ON THE MEETING ON VIABILITY TESTING - ALF SALKIN:

Viability in seeds is simply defined as the seed being alive, but the problem is how do you tell if the seed is alive. With animals this is fairly simple - if you are breathing you're alive. The same criterion also applies to seeds, but unfortunately, they respire so slowly that this is very difficult to detect either by changes in pressure or by sampling the CO_2 produced.

Most other methods of viability testing require an examination of the cells of the seed and the use of some stain that will penetrate dead cells but not live ones. The problem with this is that damage is caused to the seed. This damage can be minimized by taking very small sections from the end of the seed that does not have the radicle. Another alternative is to "random sample" a batch of seeds. One of the easiest stains to use is Evans Blue, and most success was obtained with this stain. Fluorescent techniques and Tetrazolum stain, which were also tried, were inconclusive to say the least.

From experience with Banksia seeds, which are of course large seeds, there is little difficulty in recognizing viable seed; it is always plumper. The same applies to Eucalyptus seed. From my short experience with Compositae seeds, I can usually pick out seed which is viable, particularly if the seed is fresh. The problem arises when seed is old. Large seed usually is capable of having a longer viability than small seed, this is because they have more supplies of food. I would suspect that unless Compositae seed is kept at low temperatures, the viability will be less than 5 years. With banksia seed, I have been testing seed from one batch which was collected in 1973. Germination which was 100% up till 1980, has now fallen to 70%.(10 seeds tested). Perhaps this is what we should be doing with Compositae seeds. Another suggestion is simple examination of the seed. and the development of skill in predicting which seeds will or will not germinate. Simple sectioning to see if there is any kernel to the seed is a very useful method of prediction, and if you don't cut off the radicle, these seeds will grow. Even if you cut off the radicle, the cells will swell when hydrated and the cotyledons will turn green.

Many seeds are of course lost when we plant them out in the open. They get eaten by insects, bounced out by heavy rain, attacked by fungi and bacteria. In fact not a very good way for even germination testing. Seed can be sown on damp paper. (See article on germination by Esma Salkin this Newsletter). The advantage of this system is that seeds can be seen swelling, putting out mucilage coats and all the other steps that are so perilous in the ground. If a seed is not viable it will not swell. If it is viable and was infested by fungi, as many seeds already are, it will swell and then the fruiting bodies of the fungus will appear and that's the end of that batch of seeds. Seed can be transplanted at any stage once the radicle appears, and providing one has a hardening off area, the plants grow well. This may be a solution and is put forward as such to that problem of will these seeds by any use, and why won't these seeds germinate. At least it will throw some new insights into this perennial problem. Give it a try and let's have some reports on particular seeds.

NEW MEMBERS:

We wish to welcome the following new members to the Group:-

Peter R.S. Clarke, 8 Wickham Road, Croydon 3136.

As Peter's work is planting landscapes, he has offered to make available certain areas for planting out experimental plants and will be happy to observe and report results. We have supplied him with a few varieties to try & hope to provide many more as they become available. Look forward to receiving your reports from time to time Peter. I have also included in this Newsletter Peter's thoughts about what a landscaping plant should be. (See Page 4)

NEW MEMBERS CONT'D.

Lyn Millington, 156 St. James Road, New Lambton, Newcastle N.S.W. 2305

Lyn is a member of the Newcastle Group and very interested in native annuals and perennials. She has been attending a Horticulture Certificate course and is now in her third and last year. Lyn is propagating many species from seed and we look forward to hearing of her results.

Ross McDonald, P.O. Box 9, Upper Ferntree Gully 3156

Ross is the Past President of the Victorian Region. He reports having had considerable success with the large variety of seeds bought from the Group at the Waverley Flower Show last year, and despite the drought, had a colourful display.

Betty Turk, 34 Marcus Road, Dingley 3172

Betty is a keen propagator and a member of the Springvale S.G.A.P. She has already taken advantage of the cutting service and hopes to play an active part in the Group.

Shirley Dixon, 21 Gourlay Street, Shepparton 3630

Shepparton Group have decided to have one interested member in each Study Group who will collect and collate information and forward to the people concerned. We thank Shirley for choosing our Group and hope her propagation skills improve under our guidance.

Phyllis Dadswell, 10 Duffield Street, Gawler, S.A. 5118

Phyllis has an Australian Native Plant Nursery and sells many Brachyscome multifida, especially to landscapers. Hopefully Phyllis will be able to introduce many more species to the public in the not too distant future.

THE UNINITIATED & THE SCIENTIFIC METHOD: - ESMA SALKIN

"When do I plant my daisy seeds?" I innocently asked. "Oh mine are in and up" came the reply. Within a minute and a half I had seven packets of seed, Craspedia globosa, Helichrysum cassinianum, Helipterum anthemoides, H. craspedioides, H. humboldtianum, H. manglesii and H. strictum. "Just sow direct" I was told. I went off with a vision of a massed display of daisies in my garden, as I had seen in a Western Australian Mulga-Mallee woodland.

Examination of the seed with the microscope opened up a new world and revealed the delicate texture and form of the achenes. I soon learned to differentiate plumed and barbed pappii and had crossed one hurdle to identifying genus. In two species, Helichrysum cassinianum and Helipterum anthemoides I selected and counted mature (?) seed, the former 70% and the latter only 10%. Estimates of % maturity of the remainder were:-

Craspedia globosa - 40-50%	Helipterum craspedioides - 90%
Helipterum manglesii - 50%	" humboldtianum - 30%
" strictum - 30%	

I set aside three plump and I hoped fertile seed of each species for a germination study, and began preparation for direct sowing. Books were studied, and the colour and character of flowers and plant noted, and my garden planned. On Anzac Day a small discarded pathway was dug over, manured and raked to a fine tilth. The whole area was covered with a fine layer of sand and all species except Craspedia globosa were sown in groups on this sand bed. Plants of Brachyscome angustifolia and Brachyscome sp.nova were planted at the perimeter. The bed was kept moist and I waited ..... On the fifth evening after planting, I glanced out the window and saw a flock of sparrows pecking away at their evening meal in a corner of my new bed. I rushed out to rescue my seed and covered the whole bed with a frame of 1 cm. wire mesh. To my dismay I noticed a freshly scratched patch and found B. angustifolia thrust aside. I picked up the limp plant ... too late for cuttings and tossed it on the bed as mulch. Germination has been low, but does bear some relation to the percentage of mature seed in the packet. After 7 days two (2) seedlings each of Helipterum craspedioides and H. manglesii had appeared. At 21 days the tally was H. craspedioides - 4, H. manglesii - 2, and H. humboldtianum 1. There was an electrical storm last night with heavy rain. Maybe the nitrogen

released will stimulate the laggards into life.

Craspedia globosa. The seeds were sown on the surface of a pot of fine sand and placed in the propagating shed where they receive mist spray twice daily. Germination commenced on the 10th day and by the 14th day, 30% had germinated.

Germination Study:

25/4/83. Two petri dishes were sterilised in boiling water, lined with four layers of Kleenex moistened with boiling water and well drained. The dishes were marked base and lid into correspondingly numbered segments and the 7 species set in place on the moistened paper. The seeds in this constantly moist environment were placed before an east facing bedroom window and examined daily. On the fifth and sixth days life was hectic and the seeds forgotten. On retiring to bed on the sixth evening I noticed a pair of green cotyledons pushing against the lid of the petri dish. At this stage the root radicle had penetrated through the Kleenex, leaving a mass of root hairs on the surface exactly mimicing the Craspedia achene in the neighbouring segment. This caused momentary confusion. "Yeah", said the resident Botanist, "It's walked"! Forester son showed scant interest in this interesting phenomenon and merely asked, "Want some petri dishes?" and handed over six - no more problems with migratory seeds. Examination of the three plump seeds of H. strictum with a 10x lens revealed one achene with a longitudinal slit lying "doggo" some millimetres from the seedling where it had been cast aside as the embryo burst forth into life.

After 20 days black and apparently fungus infested achenes were dissected. The three H. craspedioides were infertile, the hard plump seed coats enclosed wizened dead embryo. The two Helichrysum cassinianum revealed one dead embryo and one white and apparently healthy.

Results - 16/5/83 (21 days)

Species	Germination (days)	% Germination
Craspedia globosa	(1 achene - 12)	66%
	(1 " - 19)	
H. cassinianum	1 - 5	33%
H. anthemoides	Nil	
H. craspedioides	Nil	
H. humboldtianum	3 - 5	100%
H. manglesii	(2 - 6)	100%
	(1 - 10)	
H. strictum	1 - 5	33%

Advantages of Technique

1. Great for the novice - you can see it happening!
2. Seed with low fertility.
3. Ease of application of various chemicals to stimulate germination.

Disadvantages

1. Unsuited for mass production!
2. Non-viable seed not detectable visually.
3. Risk of fungus infestation in the closed environment if germination extends beyond 14 days.

Conclusion:

The technique offers a simple method for germination trials, however, the environment should not be too moist. Visibility is the key advantage and allows more rigid control of germination tests. Chemicals are easily added and can be applied directly to individual achenes. Use of this technique in an open environment may be applicable, particularly once the seed coat appears to be well moistened.

My experience with the three methods of seed sowing shows that sowing direct on to sand in pots is the method for me.

Postscript: 22 days - Seed coat peeled from remaining seed
26 days - 2 H. anthemoides germinated.
1 H. strictum "
H. cassinianum (see above) germinated but root radicle mal-formed.

LANDSCAPING: - Maureen

In the past if a plant performed well in the garden I would recommend it as being a good "landscaping plant". It was not until I received Peter Clarke's letter, listing all the attributes of a good landscaping plant, that I realised how thoughtless my advice had been.

I now realise that there is a difference between a good "landscaping plant" and a plant of "horticultural value". We may not produce any plants that could be classified as landscaping plants, but hopefully, many will be recognised as plants of horticultural value.

NOTES RE CLASSIFICATION OF PLANTS AS LANDSCAPING PLANTS - PETER CLARKE:

It is very important to distinguish clearly between a plant of "horticultural value" and a "landscaping plant".

A great number of native plants which are of horticultural value could not be classed as landscaping plants, as they require specific conditions in which to grow well (e.g. very well drained soils).

A landscaping plant must be one which can be used with confidence by a landscape contractor, most of whom, unhappily, do not know much about plants, however expert they may be in "construction and soil engineering" (e.g., excavation, retaining walls, driveways, brick paving etc.) which form the bulk of most landscapers' work.

With the above thoughts in mind, listed hereunder, in draft form only, are criteria for classifying a plant as a landscaping plant:-

A landscaping plant should -

1. have one or more desirable landscaping characteristics which should be specified e.g. good flowers, foliage etc;
2. perform consistently under a wide range of conditions;
3. maintain an acceptable appearance throughout the year;
4. be relatively long lived;
5. be relatively drought tolerant;
6. be relatively free from insect and snail attack;
7. be relatively frost resistant.

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Would other members or landscapers' in the Group like to offer their comments?

POETRY FOR DAISY LOVERS:

THE SURVIVOR

Upon the alpine mountain tall,
On rugged cliff face growing small
In size, but large in numbers, glowing like a million suns,
Grows the Hoary Sunray, Helipterum albicans.

Life cycles short, but ensured to succeed,
In winter frozen earth embalms the seed,
But spring brings sun and melting snow,
And soft grey foliage begins to show,
In summer like the sun itself they shine,
Tall slender stems, orange floret disc, paper bracts forever mine.

In autumn the seed has set and will ensure,
This tiny plant the future seasons will endure,
For when winter cold has gone again,
Germination will take place with warm spring rain,
Creating once again, the sunshine plant, Helipterum albicans.

Blue Wren

PLANT FOR THE MONTH OF JUNE: ESMA SALKIN

HELIPTERUM ROSEUM (SYN. ACROCLINIUM ROSEUM)

As a keen native plant grower I have often pondered whether native plants were grown in suburban gardens last century, when wild flowers would have been more visible to suburban dwellers than they are today. How many home owners, who created gardens looked to the bush for "free" plants? Were there innovative gardeners, who accepted the challenge not only to tame the wilderness but to tame the wildflowers? Or were our early colonists too strongly tied to European horticultural practices and their inherited aesthetic sensibilities to accept those wild flowers growing almost at their back door?

We know that our native flora was valued as horticultural novelties overseas, so did our early gardeners wait until wild flower species had proved horticulturally sound in Europe before being tried in local gardens.

To gain an insight into the use of the native flora as garden specimens in Melbourne, I perused early copies of Curtis's Botanical Magazine and two popular gardening publications available to Melbourne gardeners last century - The Australian Gardener and the Law Somner Catalogues. I covered the fifty year period 1859-1916 and focussed on the Plant of the Month, Helipterum roseum, but these brief notes also illustrate the status of the group of plants then known as Everlastings.

Curtis reports a successful flowering of A. roseum in the Royal Gardens, Kew in the summer of 1854, from seed collected by James Drummond of the Swan River Colony in the previous year. These cultivated flowers were superior to the pressed specimen sent by Drummond and as Curtis states it was "a graceful greenhouse annual, conspicuous for its rose-coloured heads and pale stems and leaves." This report of the floriculture of A. roseum and others in the 1850's suggests that European cultivation preceded that of Australian knowledge of the flower's horticultural potential.

Curtis's Botanical Magazine, Aug. 1854
Hortus Londonensis.

The first reference to A. roseum in these early Melbourne publications was in 1864, twelve years after its botanical description in 1852. It was listed in the General Catalogue with Calendar of Gardening Operation, published by Law Somner & Co., not only in the general list of seed but also under Everlastings. This list included about a dozen native species and a few non-indigenous species. There is a tantalising list of various colour and double forms awaiting further study. At this early stage A. roseum has escaped the hybridist's craft and the taste for spectacular forms. It is briefly described as, "everlasting, bright rose - 12 inches."

For over fifty years the Everlastings were featured prominently in these garden books and by 1891-2 thirty-five species were offered, of which about 50% were indigenous species or varieties. The Australian Gardener records the virtue of Everlastings for the first time in 1879 and when we consider the prevailing taste in garden design, it is easy to understand why these lovely annuals were promoted. The ideal garden recommended by The Australian Gardener for over fifty years had a formal structure with areas set aside for vegetables and the flower or pleasure garden. Beds, not too intricately shaped, were set in lawns and against the house for the massed display of annuals and bedding plants and were integral to the gardenesque style. Neatness and order (or controlled disorder) is the message and a sense of Victorian propriety is implied in the advice to Melburnian gardeners. Flowers, the author suggests, should be "symmetrically ranged or thrown together promiscuously".

(The Australian Gardener - 1879, p.201 - 1860 P.48.

Given the propensity for the horticulturalist to advertise his craft, it was inevitable that double forms would be offered. The Law Somner Catalogue of 1891-2 lists double forms of A. roseum and A. album. They were described as hardy and "very free-flowering daisy-like plants, valuable for winter bouquets." The seed was guaranteed to produce 50% double forms and sold at sixpence a packet. The single varieties sold for threepence, and if you were really keen on Everlastings, you could buy the 35 varieties for 8/-, post free to all colonies. The introduction to the Everlasting Seed List illustrates cogently the status of these plants in Melbourne gardens ninety years ago -

" The popularity of Everlasting Flowers has been wonderfully on the increase during the past few years, and not without reason, for their culture is very easy and simple, and their flowers, if carefully gathered, dried and preserved, will retain their beauty for years.

HELIPTERUM ROSEUM CONT'D.

Their bright and pleasing colours will be found of great service in the decoration of the church or the home, in winter, when other flowers are scarce. Many of the light varieties may be dyed of various brilliant colours; and, made up into bouquets with some of the Ornamental Grasses, are truly charming. Everlasting Flowers for preserving should be cut just as the blossoms are beginning to expand, or when they are not more than half open, and tied in bunches and hung up in a cool place to dry, with the flowers downwards. Small bunches are preferable for drying, as large bunches are apt to mould and spoil.

The Helichrysums are perhaps the most useful, and produce a great variety of brilliant and beautiful colours. Rhodanthe maculata and Rhodanthe maculata alba are two charming and elegant varieties, of fine dwarf habit; these with Helichrysums are not unfrequently introduced in the trimming of ladies' bonnets. Rhodanthe Manglesi fl. pl. is fine double-flowered variety of great merit".

(General Catalogue .. Law Somner & Co,
(Melbourne, 1891-2 P.89)

My own copy of The Australian Gardener, (Melbourne, 1982) gives a hint of the subsequent status of the Everlastings. Over recent years it writes, gardeners had been neglecting these flowers, but with new improved varieties of Acroclinium, Helichrysum and Rhodanthe, a revival was underway.

References:

1. A Handbook to the Garden for Victoria, Law Somner & Co. (Melbourne, 1870)
2. Curtis's Botanical Magazine, Vol.10 Aug. 1854 (Lovell & Reeve, London)
3. General Catalogue of Garden, Agriculture & Flower Seeds, (Title varies) Law Somner & Co. (Melbourne, 1880-1, 1883-4, 1886-7, 1891-2, 1893-4, 1895-6, 1905).
4. General Catalogue with Calendar of Gardening Operation Law Somner & Co. (Melbourne & Sydney, 1864)
5. Hortus Londonensis.
6. The Australian Gardener (Melbourne) 5th-15th editions, 1860-1916

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I wish to thank Esma for being the first member to come forward with an article on the'History of Daisies'. Well done Esma.

Joy Cook continues extolling the virtues of Helipterum roseum:-

The year the Study Group was formed I grew my first plants of Helipterum roseum. The seeds were carefully planted into seed trays and pricked out once the true leaves had formed. I got a good percentage of germination and proudly transplanted the seedlings out into my garden. The plants that survived the ravenous onslaught of snails and slugs flowered in the spring and I considered that I had achieved great things. The plants at maturity were 30 cm. high with numerous flower heads approx. 2.5 cm. across. Max took a photo enabling me to compare with future plantings.

The same year in spring we visited Burrendong Arboretum and I was enthralled to see the magnificent display of Helipterum roseum that Peter Althofer had at the entrance to the Arboretum. He told me that he sowed the seed directly into the prepared garden bed in April. The plants were tall and succulent with large flower heads and I felt somewhat ashamed of the straggly ones by comparison that I had growing at home.

I returned to Melbourne determined to improve my efforts and in March, 1982, I scattered seed that I had collected from the previous year into a prepared garden bed, approximately 15' x 3', in a sheltered position facing North. The soil had been well dug over with humus and several barrow loads of sand added. Germination took place in 5-6 days and I seemed to be getting a good percentage of germination. I fed with blood and bone and watered regularly as we were in the midst of a drought. By early August I knew that great things were about to materialize in that garden bed. The plants were strong and healthy, approx. 60 cm. - 80 cm. high with numerous large buds - that later produced flowers 3cm. - 6 cm. across, varying in colour from white to palest pink to a deep pink with black centre.

We left for a month in Queensland and as I closed our gates I thought that the splendid display would come and go whilst I was away, that only the birds and insects would be given the privilege of appreciating the beauty of my Helipterum roseum bed. Imagine my delight to return one month later, to open our gates in the dark of night, and see a sheet of lightness in the vicinity of my Helipterum

bed. I had expected a good display but the one that greeted me outshone my greatest expectations. I must be the only person in our neighbourhood who has inspected the garden by torch light. Compared with the previous year's efforts, I had achieved a magnificent display.

Obviously the answer to growing Helipterum roseum is to use it as a bedding plant and sow seed directly into the soil. That bed of Helipterum roseum produced an abundance of fertile seed and cut flowers, it has been truly one of my most rewarding efforts in native gardening.

This year I planted Helipterum roseum in the same place, but I have also sown seed directly into the soil in a raised garden bed in a very exposed position. Sadly the plants in the exposed position do not seem to be doing as well as those protected.

I have also noticed that seedlings of Helipterum roseum are popping up in the most unexpected places, so it seems that my wish to open my curtains to a bright array of colour is going to be granted, for Helipterum roseum is truly a flamboyant species.

Joy Cook

GERMINATION TESTS. - JUDY BARKER 6.6.83

A. No pretreatment.

Species	No. seed sown	Germination Time	Percentage Germn.
B.aculeata (Mt. B)	25 mature	15 - 66 d.	64%
B.heterodonta (Haw)	25 "	12 - 17 d.	12%
B.melanocarpa (Haw)	5 "	6 - 10 d.	60%
B.hivalis (Tas)	25 "	9 - 13 d	56%
B.nivalis (Mt. Bull)	25 "	10 - 36 d.	64%
B.parvula (Haw)	6 "	23 - 44 d.	83%
B.rigidula (Mt. B)	25 "	9 - 42 d.	32%
B.uliginosa (Ang)	25 "	17 - 30 d.	40%
Helichrysum apiculatum (Ang)	20 fairly mat.	9 - 30 d.	55%
H.davenportii (S.B.)	31	7 - 24 d.	35%
Helich. sp. (Kenil.Q.)	25 mature	9 - 12 d.	48 %
Helipterum albicans (Licola)	25 "	7 - 13 d.	88%
H.albicans (Licola)	6 ", fresh	11 - 31 d.	100%
H.anthemoides form (Haw)	15 "	7 - 29 d.	67%
H.chlorocephalum (SB)	25 "	8 - 14 d.	40%
H.manglesii (SB)	25 "	5 - 10 d.	36%
H.molle (Haw)	18 "	7 - 24 d.	22%
H.roseum (SB)	25 "	4 - 15 d.	82%
H.splendidum (SB)	25 "	20 d.	4%
H. sp. (King's Canyon)	25 "	14 - 18 d.	16%
H.stipitatum (King's Canyon)	25 "	9 - 46 d.	16%
Rutidosis helichrysoides (Finke River)	Large pinch	19 d.	Good

The following species did not germinate when sown Mar/Apr. '83: B.scapigera (Mt.B) B.ciliaris ver. lanuginosa (SB), Cephalipterum drummondii (SB 2/83), Olearia frostii (Haw), Helichrysum acuminatum (Mt.Buller), Ixodia achillaeoides (Nelson, but not coastal form), and B.multifida.

Observations;

a. Brachyscome species. If care is taken to see that the seed is mature, percentage germination is usually quite good, though slower than the helichrysums or helipterums. B.scapigera seemed to germinate and then disappeared. I can't believe B.multifida won't germinate and suspect the seed was damaged. I'll try again with that one.

b. From this small sample, Helichrysum species seem to germinate quite well.

c. Helipterum species germinated readily with the exception of H.splendidum, with H.stipitatum and H.molle a bit disappointing.

GERMINATION TESTS

B. With Pretreatment.

Since the best results in our previous trials with H.splendidum had been achieved by soaking in detergent - Joy Grieg's brilliant idea - this line was pursued with some species to try to increase percentage germination.

Test - Added two drops Kwit to 100 ml. cold water. After varying periods of time the seed was removed and washed under running water in a fine sieve before sowing or soaking in some other solution. This is referred to as'Kwit soak'below. Results as follows:

Species	Treatment	No. sown	Germn. Time	Percentage Germ.
H.chlorocephalum	None	25	8 - 14 d.	40%
" "	Kwit soak 24 hrs.	25	5 - 9 d.	68%
H.roseum	None	25	4 - 15 d.	82%
H.roseum	Kwit soak 24 hrs.	25	4 - 10 d.	68%
H.roseum	Kwit soak 24 hrs. + Hydrogen perox. 2 hrs	25	4 - 10 d.	68%
H.roseum	Kwit soak 24 hrs. + Hydr. perox. 16 hrs.	25	4 - 12 d.	32%
H.splendidum	None	25	20 d.	4%
H.splendidum	Kwit soak 24 hrs.	25	11 - 15 d.	12%
H. splendidum	Kwit soak 24 hrs. + Hydr. perox. 2 hrs.	25	5 - 13 d.	16%
H.splendidum	Kwit soak 24 hrs. + Hydr. perox. 16 hrs.	25 25	10 d.	4%
H.splendidum	None	25	No germn.	0
H.splendidum	Kwit soak 4 hrs.	25	6 - 15 d.	28%
H.splendidum	Kwit soak 4 hrs. + Iron chelates 1 hr.	25	No germn.	0
H.splendidum	Kwit soak 4 hrs. + Iron chelates 8 hrs.	25	5 - 10 d.	16%
H.splendidum	Kwit soak 4 hrs. + Chelates sprinkled on medium.	25	11 - 15 d.	12%

Observations;

a. Although soaking in detergent water overnight increased the percentage germination of H.splendidum from 4% to 12%, the resultant seedlings were weak or even deformed. Overnight soaking in detergent water increased germination of H.chlorocephalum from 40% to 68%, but these seedlings were robust.
The next test only allowed the seed to soak in Kwit until all the seed sank to the bottom - in this case 4 hours. Seedlings look strong so far.

Future tests will include an evaluation of sowing as soon as each individual seed sinks in Kwit soak, and similarly testing other low yield species such as H.stipitatum, H.molle, Ixodia achillaeoides and Olearia spp.

b. Some questions spring to mind. Why doesn't a Kwit soak increase H.roseum's yield? Did the Iron chelates inhibit germination after a one hour soak ? Did that inhibitory effect wear off after eight hours in chelates solution ? Can I repeat these tests and get the same results ?

Judy Barker

SUBSCRIPTIONS - $2.00 PER YEAR

Subscriptions for 1983 are now due. Cheques should be made payable to Brachyscome/Helipterum Study Group and forwarded to Leader.

Receipt is acknowledged of the following subscriptions for 1983:-

S. Dixon	B. Turk	L.Millington	M.A. Beckingham
P. Dadswell	R. McDonald	P. Clarke	M. Schaumann

FINANCIAL STATEMENT TO 30th JUNE, 1983:

Cash Receipts		Cash Payments	
Cash carried forward 1.7.82	17.29	Cash at Bank	12.88
Membership fees	63.39	Cash on hand	26.93
Seed Sales	74.26	Seed purchased	70.05
Plant Sale (Money donated Gladys Holmes)	32.72	Newsletter stationery	12.79
		Seed envelopes	19.89
Donations	44.00	Films (slide library)	15.97
		Gladys Holmes Donation from plant sales.	32.72
		Postage	40.43
	$231.66		$231.66

Sincere thanks to Joy Cook for looking after our finances and Seed Bank over the past two years.

GENERAL:

ULUPNA ISLAND FIELD TRIP - 15th & 16th OCTOBER, 1983.

Accommodation is available at the Strathmerton Motel (5 miles from Ulupna) or Carter's Beach for campers. Please note that there are no facilities for campers at all. I believe it is a very interesting area, plant wise, and hope many members will keep this week-end free to join us. Arrangements are in hand for a member of the Ulupna Island Reserves Committee to show us around the Island and other places of interest in the area.

Would members who are interested contact me as soon as possible so that I may know how many families will be attending. I believe the Motel is not a large one, so it may be a case of first in first served. Final details will be advised later to interested members together with a Map of the area.

LIFE MEMBERSHIP:

Congratulations to Esma & Alf on receiving an Honorary Life Membership from Victorian Region for their many services to the Society.

EXCHANGE OF NEWSLETTERS:

We wish to thank the following for their exchange of Newsletters:-

S.G.A.P. (N.S.W.) Region
West Australian Wildflower Society (Inc.)
Melaleuca Study Group

DONATIONS:

Ross McDonald - $3.00 - Many thanks Ross for this donation. It will be put to good use.

Ann Kerr (Slides)
Judy Barker (Photos)
Max Cook (Slides)
Claude Niero (Slides)
- Thank you all for assisting in the establishment of our slide and photo library. I am very grateful to you and delighted with the many slides and photos that we now have available.

HELIPTERUM CRASPEDIOIDES:

The following is an extract taken by Bob Mylius from "Biology of Aust. Plants" (J.S. Pate & A.J. McCoombs).

"Seed stored for 12 months became dormant and needed further exposure to dry heat before germination could take place".

Would members who have been growing this species for the past 18 months like to comment?

BUSH FIRE REGENERATION:

It has been noted by Judy that Helichrysum scorpioides has started regenerating again at Anglesea. It will be interesting to learn of the survival rate of other daisies growing in the area.

LEAF CUTTINGS:

After reading John's article on Leaf Cuttings, (Newsletter No.4) yours truly decided to give it a go with leaves of Brachyscome aculeata collected on our Mt. Buller trip. Five leaves were planted in a mixture of sand and potting mix and placed in my uncovered propagator (polystyrene fruit box). Three wilted very quickly and were removed. The two remaining leaves sat there for nearly four months before I carefully tipped them out, both had good root systems, so I quickly potted them on into 6" pots. I am now anxiously awaiting for new leaves to appear. This seems to be an ideal way of propagating basal rosette type plants, and after this small success, I am looking forward to trying more varieties in the future.

SEED BANK:

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

Bellida	graminea;
Brachyscome	aculeata, cilieris var. brachyglossa, iberidifolia, nivalis, rigidula, scapigera, uliginosa;
Calocephalus	brownii;
Cephalipterum	drummondii;
Craspedia	glauca, globosa;
Helichrysum	baxteri, bracteatum 'Diamond Head', bracteatum gold (small flower) large white, lime, pink, orange, gold colours, cassinianum, davenportii, hookeri, leucopsideum,, lindleyii, obcordatum, paralium, scorpioides, secundiflorum, subulifolium;
Helipterum	albicans (Mt. Buller form), albicans ssp. albicans var. albicans, anthemoides, craspedioides, humboldtianum, manglesii, roseum, stipitatum, strictum;
Olearia	asterotricha, glutinosa, iodochroa, myrsinoides, phlogopappa mauve, dwarf white, pimelioides, ramulosa;
Rutidosis	helichrysoides, leptorrynchoides;
Waitzia	suaveolens.

I wish to thank the following for their donation of seeds and plants:-

Lyn Kaiser, Brian Taylor, Allan Willis, Nancy Freudenthal (Waverley S.G.A.P. members) Carl Rayner (Keilor Plains Group), Tom Garnett - Garden of St. Erth.

Please remember to enclose a stamped self-addressed envelope with requests for seed.

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