

PUBLISHED BY THE SOCIETY FOR GROWING AUSTRALIAN PLANTS

AUSTRALIAN PLANTS

PRICE: 3 SHILLINGS

PROSTANTHERA NIVEA var INDUTA

A striking pink form of this species of mint bush growing in a garden at Hornsby, N.S.W. A native of inland mountain ranges of N.S.W., growing to a height of 3-4 feet where its normal colour varies from pale lavender to the very deepest lavender blue.

Photograph by P. Althofer



PROSTANTHERA MEGACALYX

A lavender blue species from the far west of Queensland. Usually a small shrub of 2 to 3 feet, the flowers may be as large as 1½ inches long.

HOW TO GROW MINT BUSH

By A. M. BLOMBERY

The Genus *Prostanthera* (Greek, *prostheke* — an appendage, referring to the appendage on the anthers), commonly called Mint Bush, due to the aromatic odour of the foliage, belongs to the same family as the common culinary herbs such as sage, mint, thyme and rosemary. There are many beautiful species which vary from small spreading types like *P. denticulata* (Latin—with small teeth, referring to the leaves) to the upright growing and more widely known species

such as *P. ovalifolia* (Latin—with oval shaped leaves), Purple and *P. lasianthos* (Greek, shaggy flowered), the Victorian Xmas Bush. The colours, ranging from white, pink and red to mauve and purple, should satisfy all tastes.

All the *Prostanthera* species are rapid growers, although varying greatly in size and habit of growth. Under cultivation they are somewhat short-lived. Unless a well-drained position is provided, losses frequently occur during periods of continuous rain, particularly in heavy soil, as the roots rot readily. In their natural habitat Mint Bush grow in well-drained positions, protected by larger shrubs and trees.

In selecting a position in the garden in which to grow a *Prostanthera* species, the **first and essential requirement is a well-drained soil**; a morning sun aspect is best, but not necessary, for Mint Bush is adaptable. Although soil of a light nature is best, it is possible to grow these shrubs in a wide range of soils. Should the site be poorly drained, reasonable success can be obtained by building up a garden bed 12 inches or more above the surrounding soil; in such cases, watering must not be neglected during dry periods.

Next, select a plant well established in the container in which it is growing; this is most important, as very many losses of young native plants are due to planting shrubs before a good root system has developed or the plant has properly hardened. After planting the Mint Bush, it should be remembered that the shrub has been growing under nursery conditions, receiving daily care, and until well established in the garden, the same attention should be given. Much disappointment and loss of plants will be avoided if the above is borne in mind.

Tip pruning, that is pinching out the growing tips, should be undertaken from the time the plant is small, to encourage the development of a bushier and more compact shrub. This method of pruning is more satisfactory than heavy cutting back of the shrub after flowering, particularly in older shrubs, as severe pruning, i.e., the cutting of hardwood, frequently kills the plant. Deep digging in the immediate precincts of the shrub should be avoided at all times.

PROPAGATION OF PROSTANTHERA

Prostanthera species may be obtained from reliable nurserymen or may be raised from seed if so desired. The seeds are small round nuts, four of which develop from a fertilised flower. The seeds should be sown in a prepared seedbox of free sandy soil, covered to a depth of the thickness of the seed and kept moist at all times. Transplant the seedling after the second pair of leaves have formed, into pots, tins, tubes or the like.

Growing new plants from cuttings is considered the easiest and best method, as flowers are produced earlier, selected forms can be

(Continued on Page 11)

THE GENUS PROSTANTHERA

(Mint Bushes)

By G. W. ALTHOFER

The Genus *Prostanthera* (pronounced pros-tan-th-era), comprising over 70 species and a number of varieties, is more truly Australian than *Eucalyptus*, *Acacia*, *Grevillea*, *Melaleuca* or any other of the more profuse genera of well known Australian plants. Under the common name of Mint Bushes, the *Prostanthera* species are known and loved from one end of the Commonwealth to the other. This happy state is mainly due to the beauty of one species, the purple Mint Bush — *P.ovalifolia* (o-val-if-olia) — which comes to us when spring is at its zenith and when the bushland is fragrant with the scent of a hundred species of flowering shrubs and trees.

The Mint Bush flowering comes as the seal of perfection, for no other is more floriferous nor more shapely, with the added attraction of the aromatic leaves, which, when scarcely brushed in passing, give to the air around a cloying sweetness — a gift redolent of bushland fragrance. There are many others, however, which vie in beauty with the purple Mint Bush, for who, on seeing for the first time the soft lavender blue loveliness of *P.induta* (in-du-ta) (*P.nivea* var. *induta*), the Warrumbungle Mint Bush, high on the sun-scorched peaks, foaming like a soft blue waterfall over the cliffs — or high in some cleft in a pocket handkerchief or leaf mould clinging in lonely state, can ever forget the sight. As long as life is with me — and perhaps beyond the grave — who knows? I shall remember the vision of loveliness my first sight of *P.induta* brought to me. The soft breath-taking loveliness of it, the size and colour of it, each flower backed by the large "Granny Bonnett" calyx and flanked by mealy-white leaves and stems, did something to my heart that no flower before or since has done.

It was several long years before I was to see *P.induta* in situ, but one day in late September in the 1940's, in company with Peter, I saw for the first time high on the cliffs of Mt. Naman, the first flowers of that spring showing their faces to the afternoon sun. The following day we scaled the cliffs on the northern side of the huge outer wall of the ancient volcano. This in itself was a breath-taking task; no direct ascent was possible, but by means of working along the ledges until a break was found in the sheer walls we finally accomplished the climb to find ourselves in a paradise of flowering shrubs — for here on the top of the 3,000 ft. mountain was a small plateau with rock pools and running water, and dozens of flowering shrubs to make the miniature cliffs around the pools bright with colour. A tangled mass of *Kunzea ambigua* (pink and white forms), *K.parvifolia* (purple), *Anthocercis albicans* (creamy yellow), *Acacia cultriformis* (yellow) were there, whilst in rock pockets were the most perfect bushes of *Prostanthera induta* I have ever seen, with lavender blue flowers just breaking, and far beyond to the east, as though suspended in space, the perfect cone of Tooraweenah spire scintillated in the morning light. To the north the vast bulk of Mt. Exmouth loomed like a brooding colossus with fixed stare across the western and northern plain land. All around was a tangled mass of ranges, spires and peaks — some timbered, some showing the man-made scars of axe and fire, whilst others are all bare rock like black

fingers pointing to the sky.

This **Prostanthera** growing in rock pockets and crevices may at first sight appear to be an unwilling recruit to the gardens of a nation, but such has not proved the case. The soil of these rock pockets is composed largely of leaf mould and decomposed stone, and this gives perfect drainage with nearly always moisture seeping along the rock faces beneath the roots. In garden practice it has been found to grow to perfection on the gravel ridges of our inland country and on the lighter soils, as well as on the richer soils provided the drainage is good. Like the bulk of the Mint Bushes, **P.induta** likes plenty of summer moisture as well as liberal applications of leaf mould.

It is a far cry from these upflung volcanic spires and sheer cliffs of the Warrumbungle Ranges to the sandstone cliffs and flat tops of the Grey Range in the far west of Queensland. But there in small pockets, growing in a minimum of soil is a Mint Bush with striking characteristics. Only recently has this species, **P.megacalyx** (mega-calyx), been known to science, and how such a striking and unique species could remain so long hidden will ever remain one of the major mysteries of botanical discovery. The huge flowers—for so tiny a plant—are in themselves sufficiently noteworthy without the beauty of colour and form which go to make this the loveliest of the smaller species. The flowers are lavender blue, and of a size not exceeded in any other species. Though they vary in size and colour on individual bushes, quite often flowers are seen up to $1\frac{1}{4}$ in. long and $\frac{3}{4}$ in. wide.

My first experience with this beautiful species was during the early spring of 1946 when I received a parcel of flowers including **Prostanthera suborbicularis** and **P. megacalyx** from Mr. D. Gordon. He found this species (which had been described only a few years before by C. T. White and Francis of Brisbane Herbarium) growing on top of the Grey Range, west of Quilpie, and again on Ambethala Range between Adavace and Charleville. The Grey Range runs north and south from the far west of N.S.W. through the southern portion of western Qld. Although at no place does the Range reach a high elevation, there are some quite considerable cliffs on the eastern side of the Range, and the colouration of the sand stone when struck by the first rays of the morning sun can only be described as superb. Where the road from Quilpie to Windorah crosses the Range the western slope is typical gibber country, thickly covered with Wilga (*Geijera parviflora*), *Eremophila* Sp. *Eucalyptus*, etc. It is on the very top of the Range in a barren and inhospitable setting that **P.megacalyx** grows. This region of rock, blasted by the fierce heat of summer and the bitter winds and frosts of winter, has given to the world this lovely flower.

There are doubtless many places in western Qld., far from the haunts of man and the man-made desolations born of axe and fire, where **P.megacalyx** grows. We saw it a few miles from Charleville on top of Ambethala Range, and again it grew and thrived on a rocky flat top where soil was practically non-existent. **P.megacalyx** is a small shrub of 2 to 3 feet, and is rivalled only in the size and beauty of its flowers by **P.magnifica** of **Western Australia**.

(To be continued)

THE TREATMENT OF SEED

Some findings following the application of Calcium Hypochlorite to
hard testa seed.

By H. BOYD

In the process of rendering *Eucalyptus* seed bacteriologically sterile by immersion in an aqueous solution of Calcium Hypochlorite and household detergent (this was being done for the purpose of growing seed in flasks under controlled conditions on sterile vermiculite wetted with a nutrient solution), the writer noticed the testa or outer covering coming away from the embryo of the seed. The phenomena was watched until some of the seed fell into two parts, the outer covering being stripped from all seed. This took about half an hour. The time varies with different species.

The experiment was duplicated, and the reaction stopped before the testa was completely removed. The seed was then washed several times in sterile water until most of the chlorine was washed away. It was sown on the prepared medium in flasks and germination was very rapid. Some cotyledons opened in 48 hours. This was a surprise because of the damage to the covering or testa and the toxicity of calcium hypochlorite. All seed germinated.

Several other species were treated with different results.

A series of tests were decided upon in open seed boxes. The medium was vermiculite wetted with a solution of "Aquasol" acidified slightly with hydrochloric acid (Ph.6). (Sydney water at times is very alkaline.) Germination was rapid and the growth spectacular. It was thought by some members of the Native Plant Propagation and Research Society that this might have been due to the new polyethylene propagating house being used, so the experiment was duplicated in a standard glass house. The results were about the same.

The seed was sown on the 29th December, germination taking from 7 to 10 days. On the 26th January, the heights were:—

<i>Acacia lanigera</i> A. Cunn.	.....	.....	.....	.....	3"
<i>Acacia saligna</i> Wendl.	.....	.....	.....	.....	4"
<i>Pavonia hastata</i> Cav.	.....	.....	.....	.....	3"
<i>Albizzia lophantha</i> Benth.	.....	.....	.....	.....	10"
<i>Eucalyptus cinerea</i> FvM.	.....	.....	.....	.....	6"
<i>Eucalyptus preissiana</i> Schauer.	.....	.....	.....	.....	5"
<i>Eucalyptus pyriformis</i> Turez.	.....	.....	.....	.....	4"

More than 30 species of *eucalyptus* have been treated as well as seed of many other genera:— *Calistemon*, *Melaleuca*, *Leptospermum*, *W.A. Boronias*, *Acacia*, *Cassia*, *Stenocarpus*, *Hakea*, and good results have been had with *Prostanthera*.

THE TREATMENT OF HARD TESTA SEED WITH CALCIUM HYPOCHLORITE

To prepare the solution for the sterilisation of seed, take 10 grams of Calcium Hypochlorite and 140 c.c. of water ($\frac{1}{4}$ oz. Calcium hypochlorite, approx. a level teaspoonful, and $3\frac{1}{2}$ fl. ozs. water, approx. half cupful). Mix in a flask that can be fitted with a tight fitting cork, allow to stand for one half hour, pass through a filter paper, add a couple of drops of household detergent (used here as a wetting agent) and then stopper the flask tightly. If a method of filtration is not available, allow the mixture to stand a little longer in the stoppered flask until most of the "lime" falls out of

suspension, and then the clear liquid can be poured off into another flask to be again tightly stoppered.

Seed up to the depth of 2 inches is placed in a 1" test tube, the tube to be about three parts filled with the liquid and the tube tightly stoppered. The seed should be watched with a magnifying glass and as soon as the testa begins to crack or come off it is time to stop the experiment by pouring off the liquid and replacing it with cold sterile water. The seed is washed until the strong odour of chlorine has been dispersed. If the seed floats on the water, the water may be removed by inverting the tube and loosening the stopper a little. The seed is then sown in sanitised soil or vermiculite. The use of a hollow glass tube or pipette with a thumb over the top of the tube is a simple way to distribute seed in water.

The advantage of using the above method for the treatment of seed is not only the splitting of the seed coat to ensure rapid germination, but calcium hypochlorite is a very good fungicide and bactericide so the pathogens that inhabit the outer covering of the seed and placental material are reduced, allowing rapid growth and the establishment of strong plants before the germ count can build up.

For the treatment of very hard seed the writer has varied the strength of the solution and at times has used it at a much greater strength. Some seed might have to be soaked for hours, and increasing the strength accelerates the action. Once the reaction starts it is fairly fast, so the experiment calls for close observation. It might also vary in time with the same species due to the instability of the bleaching powder. For this reason Calcium hypochlorite (bleaching powder) must be kept in a tightly closed container. After having been opened a couple of times it is useless. The clear filtrated liquid, if kept well stoppered is good only for 24 hours.

The dramatic results obtained with Eucalyptus seed were not repeated to the same extent with any other genera except perhaps *Clianthus*.

Editor's Note:—

Mr. Boyd has been studying this method for many years using many types of solutions at different strengths. Readers are urged to use this method, record the results and advise me of the conclusions. Here is an experimental work the most inexperienced amateur can do well. The materials are cheap and readily available from a Chemist. One pound of Calcium hypochlorite approx. 3/-. Three 6" x 1" Bactoglass test tubes with 7/8" rubber stoppers (check that they fit the tubes when purchasing) approx. 6/-. You may prepare the solution in one of these test tubes or if a larger quantity is required purchase some good stoppers to fit milk bottles. For filtering, a 3½" glass funnel

(6/-) and a packet of No. 1 filter papers will last for many years. I have used this method with considerable success, using vermiculite or sand in a 4 inch pot with a piece of glass over it. Locate it where it gets morning sun only.

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THE FLOWER (Part I)

By HELEN PURNELL

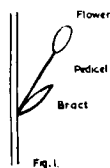
Flowers are the plant organs which are concerned with sexual reproduction and the formation of seeds (cf. asexual or vegetative reproduction by means of bulbs, corms, runners, cuttings, etc.). Flowers are very variable in general appearance. Some are large and brightly-coloured, e.g., *Cassia* and *Hibiscus*, others so small that they are readily overlooked, e.g., *Haloragis* (Raspwort) and *Lemna* (Duckweed). In some plants, e.g., *Salicornia* (Glasswort), the flowers are embedded in the fleshy stems. The structure, number and arrangement of the parts of the flower varies considerably from family to family of flowering plants, and these floral characters are the primary ones used in classification. Variation of the flower structure within a family, and particularly within a genus, is very much less than the variation which may occur in the vegetative characters.

A flower usually arises in the angle between a stem and a leaf or scale-leaf (i.e., in the axil of the leaf or scale-leaf). The leaf or scale-leaf is known as the bract and the flower is said to be subtended by the bract. The flower may be stalked or sessile (without a stalk).

The parts of the flower are arranged in several series or whorls on a structure known as the receptacle. The receptacle may or may not be conspicuous and can vary in shape, but for the moment these modifications will not be considered. In a typical flower there are four main kinds of floral parts; sepals, petals, stamens and a carpel or carpels, and these are arranged so that the sepals compose the outermost whorl on the receptacle and the carpel or carpels are innermost. The whorl of sepals is known as the calyx and the whorl of petals as the corolla. The calyx and corolla together are called the perianth, but the use of this term is usually restricted to cases where the sepals and petals are alike in shape and colour, e.g., *Burchardia* (Milkmaids), or where either the sepals or petals are absent, leaving only one whorl, e.g., *Grevillea*. The stamens collectively are called the androecium and the carpel or carpels, the gynoecium.

THE CALYX

The sepals are usually green and leaf-like, and enclose the other parts of the flower in the bud. If, in the bud, the sepals meet together edge to edge, they are said to be valvate, e.g., *Solanum*, and if the edges of the sepals overlap they are said to be imbricate, e.g., *Cassia*. The sepals may be free from one another, e.g., *Cassia*, united at the base only, e.g., *Boronia*, or joined into a tube, e.g., *Pultenaea* (Bush-pea). The number of sepals in a tubular calyx usually can be deduced from the number of lobes or teeth at the top of the tube. The calyx normally persists during the flowering period but is sometimes deciduous, i.e., it is shed as the flower opens, e.g., *Bursaria* and



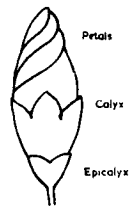
Simple Bract.



Tubular calyx of *Pultenaea* showing one of the bracteoles



Bracts at the base of the calyx of *Epacris*.



Epicalyx of *Lavatera* (Malvaceae).

Papaver (Poppy). In some species the calyx is persistent in fruit, e.g., **Solanum**. The calyx is occasionally covered with prickles or spines, e.g., **Solanum sodomaeum** (Apple of Sodom). Extra bracts may be borne on or at the base of the calyx: e.g., in **Pultenaea** there are two small bracts (bracteoles), one on each side of the calyx tube; whilst in **Eutaxia** the bracteoles are found on the pedicels below the calyx. Large numbers of bracts at the base of the calyx in **Epacris** (Heath) and other members of the family Epacridaceae are similar in structure to the sepals.

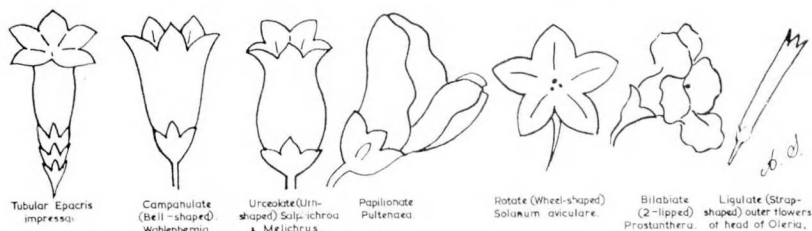
In many members of the Malvaceae, e.g., **Hibiscus**, the calyx appears to be double due to a ring of bracts borne on the calyx itself. Such a structure is known as an epicalyx. Sometimes a cluster of flowers is subtended by several whorls of green or coloured bracts. These are known as an involucre; e.g., **Telopea**.

THE COROLLA

The petals are frequently coloured and delicate in texture, and they are arranged on the receptacle inside the whorl of sepals. Normally the points of attachment of the petals alternate with those of the sepals and therefore there is usually an equal number of parts in each of these whorls. There are some exceptions, e.g., **Papaver**, has 4 petals and 2 sepals. Petals are free from one another or united (gamopetalous) and they are usually either valvate (the petals meet together edge to edge) or imbricate (petals overlap) in bud.

An important point in a discussion of the arrangement of floral parts is that of symmetry. A flower is said to be regular (actinomorphic) if the members of the calyx and corolla are arranged in a regular fashion on the receptacle and the flower can be divided into equal halves by two or more vertical planes, e.g., **Bauera** and **Burchardia**. A flower is irregular (zygomorphic) if the parts are not regularly arranged on the receptacle, and then only one vertical plane will cut the flower in equal halves, e.g., the pea flowers (**Pultenaea**, **Hovea**, etc.), **Prostanthera** (Mint-bush) and **Pelargonium**.

Some of the common corolla shapes are illustrated below.



(Continued from Page 12)

PROSTANTHERA STUDY GROUP:

A group is being formed now. Ideal for the home gardener interested in this easy to grow, most floriferous subject. Colour transparencies are required.

VERTICORDIA STUDY GROUP:

The next issue will feature the West Australia Verticordias, a trying subject for home gardens in the East. An attack on this challenge will be made commencing with an article and the formation of a study group. Possibly a group exists already? Please forward any experiences, advice or colour transparencies you may have.

ERIOSTEMON STUDY GROUP:

The August issue will feature the genus Eriostemon with an article by Jean Galbraith. Please forward comments, and any colour transparencies you may have.

OUR JOURNAL — A SUCCESS

In "Letters to the Editor," it is proposed to print extracts from letters received from readers, giving experience and advice on the previous issue of the journal. The huge volume of mail received following the first issue deals principally with the success of our first issue and it is appropriate that readers should know the extent of the acclaim given our publication.

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The city members have expressed themselves with considerable enthusiasm at meetings. Their views have been reflected in the typical comments of Country Members — from S. M. Seccombe, Wagga Wagga, N.S.W., "The Society is still young, but subject matter as detailed is most essential for beginners and with all the advice given, I feel so many of us who are interested, will benefit beyond doubt." . . . from L. G. Ryan, Dunedoo, N.S.W., "It was a lovely surprise The journal is a marvellous effort, the articles, illustrations and texture of paper, all a thing to be proud of . . ."

Interstate members were no less enthusiastic — from G. Foster, Bowenville, Queensland, ". . . would like to see it every month; mean extra subs. from members which I don't think they would mind. I wouldn't anyway. Enclosed is £1 for several more copies."

A feature of many of the letters was requests for more copies for sale to friends. This is most welcome and a very real assistance to the production of a good quality journal.

Of all the mail received three declared dissatisfaction, describing the production as too elaborate and expensive and/or too technical without general interest. If they are patient with me, those who find it too technical will soon become familiar with the terminology used, it being kept as simple as possible commensurate with accuracy. The majority agree with the fair treatment of one or two subjects each issue, rather than the general treatment of a

miscellany of subjects, none of them being fairly examined. The first issue favoured N.S.W. and Victoria, this issue the outback of N.S.W. and Queensland, the next Western Australia followed by Victoria and Queensland.

Most encouraging is the support being received from experienced growers, field naturalists and professional botanists. The most experienced and competent people in Australia have offered their support, and in a large number of fine letters, each agreed to write an article for publication. Mr. Alf Gray, West Australian . . . "an excellent enterprising effort. I do think the quality of material used and the principle subject matter was of a high standard."

A very nice letter from Jean Galbraith offers us some excellent articles and includes this important paragraph . . . "Thank you for the fine first issue of the S.G.A.P. journal. A high standard to line up to. May I make one suggestion — that it be made more informal, so that it becomes a friendly publication for friendly growers who like to help each other. The punched holes for filing are an excellent idea. All good wishes for continued success."

This gives precisely the aim of the publishing section. To present accurate and reliable information on our native plants in a form that is easily filed for future reference, and to encourage the research for, and the exchange of, information on their growing habits. It does not matter if you have one or twenty species of *Prostanthera* growing in your garden. Please write and advise details of name, age, origin, soil, aspect, etc.

NATIVE AUSTRALIAN PLANTS by A. M. Blomberry. Price 17/6

For home gardeners interested in growing native plants we recommend this very fine book. Mr. Blomberry has contributed the article "How To Grow Mint Bush" in this Journal. It is written in the style of the book which deals with many other plants in a similar, or where necessary, a more detailed manner. A feature of the book is the many clear sketches used to illustrate the book, the sketches being done by A. Spurway, the artist who does the illustrations in this journal.

In the foreword, Mr. K. Mair, Senior Botanist, National Herbarium, Sydney, describes the book as being essentially "for the layman written by a layman. With painstaking detail, it explains what is generally regarded as, yet rarely, is common knowledge, and so facilitates any work undertaken. Above all, the information contained in NATIVE AUSTRALIAN PLANTS is the result of empiric data compiled by the Author. As such, it may be relied upon as a sound basis for any work connected with the growing of native species." Mr. Blomberry in the introduction says, "The species discussed . . . are only a small selection of the Australian flora . . . It is again emphasised, however, that the information given is factual and that the techniques have been tested and found satisfactory. They could, in all probability, be applied successfully to the majority of native shrubs."

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by A. M. Blomberry

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Free List. Edwin A Menninger, The Flowering Tree Man, Stuart, Florida, U.S.A.

(How to Grow Mint Bush, continued from Page 2).

reproduced, and there is not the variation of growth as in plants grown from seed. Cutting of side shoots taken in late spring after flowering or in early autumn may be used. The cuttings should be prepared by removing the lower leaves and trimming the base with a sharp knife. Next, set in pots, tins or boxes of coarse sand or vermiculite (to which may be added peat moss) to approximately half to two-thirds their length. The containers should be provided with drainage material such as coke, stones or the like at the bottom before filling. Keep the cuttings in a morning sun position, protected from drying winds, and under no circumstances allow them to dry out. When the roots have

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Membership is open to any person who wishes to grow Australian native plants. Contact the Secretary of the Society for your State.

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FROM THE EDITOR:

I am receiving a large volume of mail from enthusiastic readers enquiring how they can assist to maintain the fine standard of the journal. This is your journal and it is possible for all to help. Write to the editor as often as you wish with comments, criticisms and items of interest. Grow native plants in your garden and report results. Increase circulation by sales to friends and encourage local newsagents, nurserymen or garden clubs to sell copies also. Forward any good quality colour transparencies that may make a good cover subject. They will be returned to you within four weeks in good condition.

If you are a competent botanist, what is your favourite Genus? Many of the most competent botanists in Australia are working on articles for our journal but as this means much work, in some cases years, more competent writers are required. Your work will be eagerly sought after by many people seeking to learn more of our national heritage, OUR native flora.

STUDY GROUPS:

Study groups are being formed by members who are particularly interested in the growing of flowers of a particular genus. They will be organised by a leader by correspondence, and every member is eligible to join. A membership fee or subscription will not be necessary, the members forwarding a stamp addressed envelope to the Leader for reply. The members will exchange notes, seed, plants, etc., to assist in the cultivation and development of these plants to become the pride of their garden. Enthusiasm, not experience, is all that is necessary. Space will not permit a general plant or seed exchange system, this being a function of the State Societies, but such a service will be given where necessary to Study Groups wishing to increase the quality or range of their plants.

You may form or join a Study Group for your favourite flower by writing to the Editor. News from existing Study Groups is as follows:—

TELOPEA STUDY GROUP:

Do you wish to grow Waratahs? Join up. Seed or plants of *Telopea mungaensis* T. oreades or *T. truncata* is required. For new forms of hybrid Telopeas, see the January issue of The Australian Garden Lover. This is being followed up.

ACACIA STUDY GROUP:

A group to study and cultivate our Wattle trees has been formed. This is an excellent group for owners of large blocks of land and for Country Members.

(Continued on Page 8)

WHAT'S NEW FROM W.A.

By G. W. ALTHOFER

No. 2

For this article I have selected a *Banksia* and a *Melaleuca*, both of them dwarf shrubs.

Banksia violacea Gardn., a rather stiff dwarf shrub of 4ft. or so. Evidently closely related to ***B. sphaerocarpa*** and like this species prone to damping off in seedling stage. A striking species with rather large purple-black brushes. The limited knowledge we have so far accumulated of this species points to the fact that it favours the lighter type of soil. Collected by A. J. Gray. Only available in seed form at present.

Melaleuca sclerophylla Diels, one of the most delightful little shrubs imaginable, growing to a height of 3 to 4 ft. We have grown this species here for six years and for compactness and colour it is hard to beat. Flowers are in terminal heads of about one inch diameter and mauve-cerise dotted with gold. Unlike many *Melaleucas* this species likes a well-drained place — a choice of soil seems immaterial, but keep water up to it in dry times.

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AUSTRALIAN NATIVE ORCHIDS

By R. F. LEANEY, F.R.H.S.

Orchids have always been looked upon as rare plants, but such is very far from the truth in a number of species. There are some twenty-five thousand (25,000) species of orchidaceae. The daisies, with about eighteen thousand (18,000) species, run a very poor second. The grasses, always thought to be the most plentiful of plant life, run a long way back with several thousand, and this of course also includes the bamboos.

Having established beyond all doubt that we have plenty of scope for our endeavours, let me say right here and now that "Australian Native Orchids" are not difficult to cultivate, indeed very many are downright simple to succeed with, even under the most ordinary conditions met with in anyone's garden. As the greatest confusion exists in the identification of native orchids, I have been invited to contribute a series of articles to be printed in alternate issues of the journal to introduce the species that are more easily grown.

This illustration shows *Dendrobium falcorostrum*, one of Australia's finest species. First described by Fitzgerald in The Sydney Morning Herald, 18th November, 1876 (because, to use Fitzgerald's own words, "there being no scientific periodical in the Colony").

Dendrobium falcorostrum is named for the shape of the column, the point of which very closely resembles the curved beak of the falcon. Found invariably on the Antarctic Beech, *Nothofagus moorei*, where it thrives on a few elevated, well watered peaks and plateaux on the north coast of New South Wales; takes very well to cultivation, especially when grown in large clumps in baskets under good "orchid bush-house" conditions. Highly and very delicately perfumed especially in the mornings of warm days; flowers in spring.

Stems or pseudo bulbs about 12 inches long (although I have collected many plants with bulbs from four to 18 inches in length). Slightly tapering to each end. Leaves two to five at or near the apex, quite distichous, almost obovate, two to five inches long.

Flowers frequently inverted, up to twenty-five or thirty, white, slightly striate, large pedicels one to two inches, sepals broader than the petals, both about one and a half inches long. Petals lanceolate, spur truncate, furrowed round the edge, labellum three-quarters of an inch long, white spotted purple, centre lobe long, acuminate, turned up, sides of labellum festooned so as to form a lobe near the centre lobe, the whole resembling the bill of a falcon (hence name). A yellow cruciform gland on the disc and between this and mid-lobe, the labellum is deeply concave, the hollow extending beneath the gland composed of three ridges for the greater part of its length; column short and thick, yellow from below the stigma and spotted with purple, much thickened near the hinge of the labellum, pollen masses longer than usual, pollen preserves very well. Flowers pollinate and cross-pollinate fairly easily, seeds very viable, germinate well under the correct conditions.

NATIVE ORCHID STUDY GROUPS:

Two groups are planned, the Native Orchid (Terrestrial) Group and the Native Orchid (opiphytal) Group. The article in this issue is the first of a series to introduce native orchids. It is planned to organise the efforts of those people already interested in these plants, receive their comments and then print a guide to their cultivation for others.



Blocks by courtesy of John Sands Pty. Ltd. Colour Photography by Frank Hurley

DENDROBIUM FALCOROSTRUM

This lovely easily-grown species from the uplands, almost always found on the Antarctic Beech, *Northofagus moorei*, likes plenty of water and rather more cold than is general. It is a good subject for the Mountains and the South. This plant is best potted or planted in big masses in wooden baskets as this type of growing suits it best. On a warm morning in early spring the perfume of *D. falcorostrum* is well worth any trouble you may go to to get the plant in the first place.

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