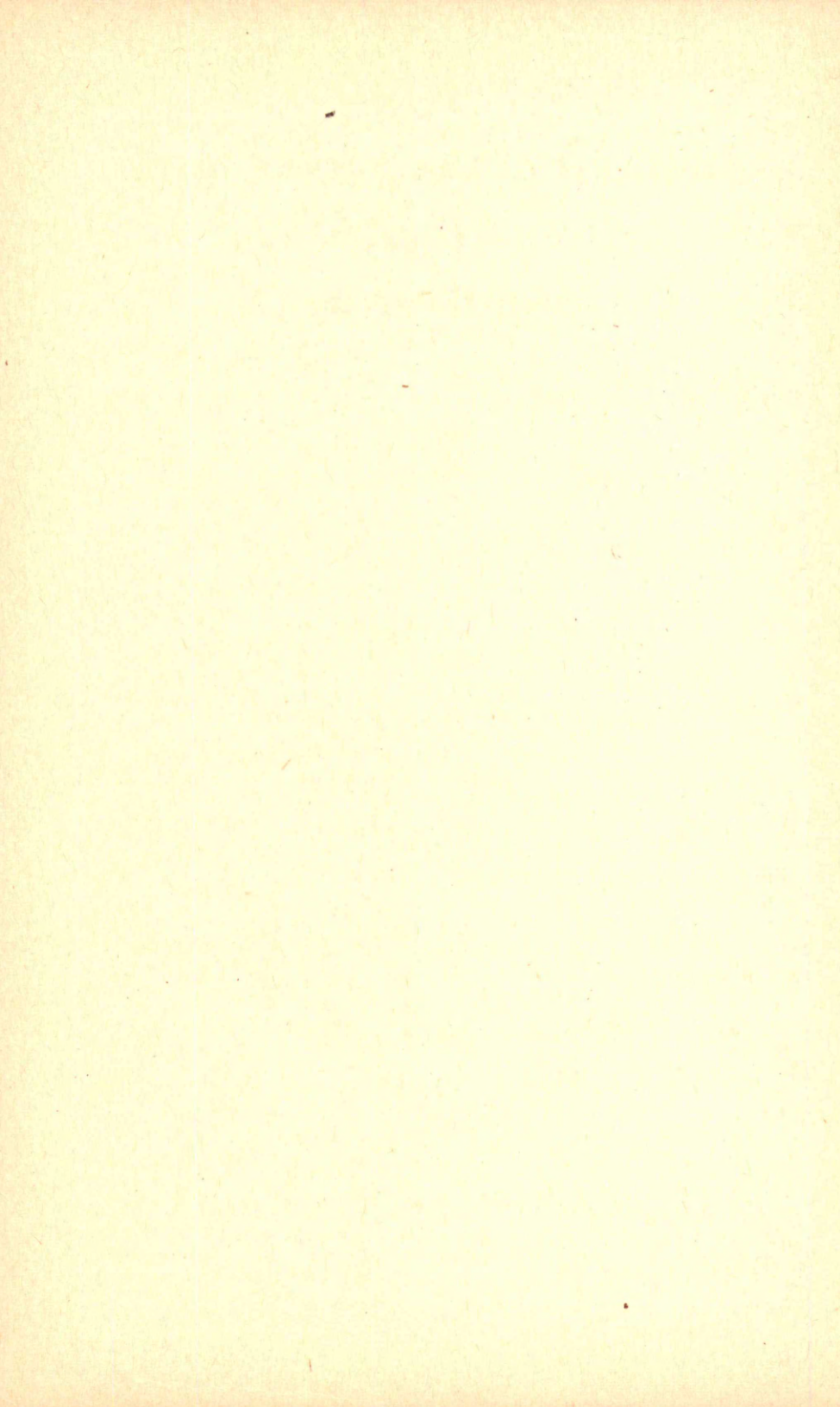


**JOURNAL
OF THE
ROYAL NEW ZEALAND
INSTITUTE
OF
HORTICULTURE**

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Journal of the Royal New Zealand Institute of Horticulture

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"DIG FOR VICTORY" EXHIBITION, 1944, WELLINGTON.

In July, 1943, the Board of Management of the Wellington Junior Chamber of Commerce considered the suggestion of staging an Exhibition to assist an understanding of the work that was being carried out by the "Dig For Victory" Campaign Committee in promulgating a knowledge of Vegetable Gardening amongst Home Owners, Novices, etc. in order to provide full supplies of vegetables for overseas Servicemen.

Approach was made to the above Committee through the recommendation of Mr. Ben Roberts, an experienced commercial vegetable grower, who was then the Member of Parliament entrusted with the Chairmanship of the "Dig for Victory" Campaign. The suggestion was favourably received and a Sub-Committee was set up including representatives from the Main Committee, Junior Chamber of Commerce and Wellington and Hutt Valley Horticultural Societies.

Mr. E. Boshier, Junior Chamber of Commerce, and Mr. D. B. Brown, Secretary Wellington Horticultural Society, were appointed Joint Secretaries. The Wellington Horticultural Society agreed to transfer its 1944 Midsummer Show booking of the Town Hall, Wellington, to the Exhibition Committee and the Hutt Valley Horticultural Society also co-operated by holding its Show a week later than usual. The final dates fixed for the Exhibition were 9th, 10th and 11th February.

The installation of a "Dig for Victory" Bureau at the D.I.C. on Lambton Quay, was a bright idea and served a double purpose—information regarding the "Dig for Victory" Campaign and the home-growing of vegetables but principally concerning the Exhibition and its various classes and later for the receipt of entries, which were also made to the Wellington Horticultural Society. Mention should be made of the work of Mr. E. Boshier, Secretary of the Junior Chamber of Commerce Exhibition Committee in inauguration of the Bureau, of Mrs. Raine, the capable officer in charge, the Horticulture Division of the Department of Agriculture for oral

information, relieving duty and printed radio talks, and Horticultural Societies for displays of vegetables and relief on the late night, etc. Just prior to the Exhibition, the Bureau was transferred to the Town Hall under the title of Information Bureau where it continued to function most usefully in relation to the Exhibition and with information concerning the "Dig for Victory" Campaign.

The Wellington Horticultural Society lent its staging plant and vases, the Hutt Valley Horticultural Society its black cloth for background, and vases were also lent by the Miramar and Eastern Suburbs Society, Wellington.

The Junior Chamber of Commerce formed the following Main Committees:—Management and Finance; Layout and Display; Radio Advertising and Newspaper and Poster Advertising

Subsidiary Committees formed were:—Properties at Exhibition; Finance; Liaison—Government Department, "Dig for Victory" Committee and Local Horticultural Societies; Compost Clubs; Catering and Entertainment; Educational Demonstrations; Lectures and Exhibits—Women's Divisions and Farmers' Union—Servicewomen Patrols; School Entries and Competitions; Prizes—Collection of Donations etc.; Publicity—Press, Posters, Radio and Printing; Publications from Government Departments; Auction—Final Disposal of Goods (all Entries), Competitions, etc.; First Aid Post; Junior Chamber of Commerce Members—Emergency Staff Pool; Appointment of Judges and Exhibition Results.

The Display and Lay-out Committee had the most important and hardest task as one could not envisage how even a limited attendance could be accommodated in the Town Hall floor space which did not even have the relief of the Concert Chamber, which at that time was still under repair. However, this problem was most capably dealt with and one should thank the honorary Architects for their vision and fine work which resulted, with the help of the Servicewomen patrols, in the handling of a total crowd of over 33,000! In addition to this the lay-out was planned to tell the story of horticulture pictorially and practically, from seed-time to harvest, by artistic wall displays and by appropriate exhibits.

The Official Opening of the Exhibition was made by the Right Honourable Peter Fraser, Prime Minister, and addresses were also given by the Hon. Ben Roberts, Minister of Agriculture, his Worship the Mayor of Wellington, T. C. A. Hislop, Esq., and Mr. G. S. Nicoll, Chairman of the Exhibition Management Committee.

Mrs Knox Gilmer, President of the Wellington Horticultural Society, was Hostess of the afternoon tea for the official party, which was supervised by the Society's Lady Conveners.

In the competitive exhibits, vegetables naturally took pride of place and it can be truly said that never has such an exhibition of vegetables been seen at any Horticultural Show in New Zealand, either in quantity or in quality, and ranging from space exhibits

to classes of individual vegetables.

The Ladies' Decorative Section was excellently supported and made a wonderful display though somewhat cramped for space. In the Cut Flowers, magnificent Gladioli had pride of place, closely followed by Hydrangeas and other flowers in season.

It should be stressed that this volume of outstanding entries was secured despite adverse weather, which continued for practically the whole season prior to the Exhibition. It should be mentioned, however, that a recurrence of cool weather, shortly after the Opening, retained all entries, including certain perishable Vegetable, Cut Flowers and Decorative Exhibits, in excellent condition throughout the three days period of the Exhibition. It should also be stated that only one entry was allowed in each class.

All this extra Show work fell on the capable shoulders of Mr. D. B. Brown, Secretary of the Wellington Horticultural Society, and his assistant, Miss Dartnell. It should not be overlooked that their work in this Exhibition was many times greater than in any ordinary show.

Mention must also be made of the Society's Committee for Staging and Lay-out of Competitive Exhibits:—Mrs. Knox Gilmer, Messrs. J. G. Mackenzie and W. D. Rough as also of the Judges, who had a most strenuous time; Stewards, both for staging and judging, from all Horticultural Societies and all other helpers throughout the Exhibition.

The Judges were:—Vegetables—Messrs. G. A. Aggett and J. C. Stirling; Gladioli—Messrs. W. R. Griffiths and W. Jenkins; Dahlias—Mr. E. Hutt; Hydrangeas—Mr. R. R. Martin; Miscellaneous Classes and Cut Flowers—Mr. H. A. Fox; and Decorative Section, Miss M. Cooper.

The Junior Chamber of Commerce organized Special Exhibits from various Government Departments, Public Institutions etc. including:—

Department of Agriculture Horticulture Division—Model "Dig for Victory" Garden by Mr. D. K. Pritchard also Stall for his book "Vegetable Growing in the Home Garden."

Air Department—Fine display of assorted Vegetables from Air Force Stations.

Health Department—Specimen lunches and other thoughtful facts concerning food.

Internal Marketing Division—Fruit and Dehydration.

Tourist and Publicity Department—Film Studios.

Massey Agricultural College—Demonstration of absorption of water by plants; exhibit of pests; information re Course in Horticulture etc.

Wellington Gas Company—Demonstration of bottling of fruit and vegetables etc.

N.Z. Humic Compost Club (Wellington Branch)—Compost, literature etc.

Wellington Women's War Service Auxiliary—Fine massed display of Vegetables.

F. Cooper Ltd.—Well arranged exhibit of containers of New Zealand grown seeds of many types and varieties.

Garden Gadgets—G. S. Nicoll.

Fertilizers.

Reed and Reed—Home Gardening Circle Book Club etc.

Watties Canneries—Fruit, Vegetables etc.

Murals and pictorial posters were a fine feature and comprised a series of murals depicting various vegetables and the requirements for successful growing; pictorial posters included a set of four 8ft. 4in. signs depicting "double digging" and a series of 8ft. x 4ft. signs depicting "Dig for Victory" Gardens.

The Exhibition was sponsored by the Government to the extent of £800 for expenses and any further expenditure had to be met from any other source approved by the Junior Chamber of Commerce.

The total amount expended was something over £1000 but this does not include Prize money donated, £186/16/-; Radio Advertising by the "Dig for Victory" Campaign Committee through the Department of Agriculture; Patrols etc. provided by the Junior Chamber of Commerce and Servicewomen; Cost of Demolition carried out by the Junior Chamber of Commerce members etc. In addition to Prize money total of £180/16/-, donated by business firms, an amount of £146/10/6 was also collected for sponsored advertising of the Exhibition. It is estimated that the total cost of running the Exhibition on an ordinary basis would have been £3000!

Mention should be made of the amount raised for Patriotic Funds by numerous competitions including the weight of Pumpkins and Potatoes etc., and it was a condition of entry that all competitive exhibits should be sold for the same purpose.

Congratulations are due to the Junior Chamber of Commerce and its President, Mr. O. G. A. Horne, and all others connected therewith, not only for their assistance in connection with the preparatory work and the running of the Exhibition, but also, and particularly including Ted Norman Junior, on their great work in dismantling the whole Exhibition, starting at ten p.m. until one p.m. when the whole job was completely finished! This was a fine performance on the part of a team of about fifty men, most of whom had had practically no experience in this class of work.

Grateful acknowledgement is made to Mr. Boshier's report as Secretary of the Junior Chamber of Commerce Exhibition Committee; Mr. E. J. Rishworth's report prepared for myself as Chairman of the Exhibition Committee and to Mr. J. C. Croft's Report as Treasurer covering Statement of Accounts of the Exhibition.

THE DAFFODIL FLY.

(By N. R. W. Thomas, LL.B., N.D.H. (N.Z.).)

This pest has been imported into New Zealand and, of recent years, has spread fairly extensively, largely through non-recognition, or mostly non-realization of its existence and menace.

Meredon equestris—the Narcissus or large bulb fly, is a large conspicuous hairy fly, somewhat resembling a small Bumble Bee or a cross between that and a Blow-fly. It is easily identified by the hairs on its body (which however show great variation, being reddish orange or grey) whilst drones and other flies have a shiny abdomen. Meredon has large eyes then either a wide band of coloured hairs between the single wings, sometimes a black body and then the hairy abdomen. It is slow moving early in the morning, when it can be caught with a handkerchief while at rest. Later in the day it is very active and quick. The fly is about two-thirds of an inch in length.

A discussion by the leading English daffodil growers (Royal Horticultural Society Journal, 1943, for August) showed considerable divergence as to the best method of controlling its activities. In New Zealand, the fly appears during September and October and lays its eggs on or near decaying daffodil foliage. The white egg hatches into a grub or maggot which makes its way to the base of the bulb by the space left by the shrinking foliage. It makes a hole about the size of a pin head in the base, and once inside, proceeds to eat out (usually) the centre of the bulb where it remains until June to August, when it pupates into the adjoining soil at a distance varying from a few inches to two feet. It was agreed that the main source of infection came from unlifted bulbs in adjoining properties.

Measures of control suggested, were:—(Dates altered to N.Z. times).

1. Collection of the puparia from the top few inches of the soil during July.
2. Digging up any bulbs that show obviously defective foliage.
3. Collection of the flies when they emerge.
4. Blowing naphthalene on the plants particularly round their necks to check egg laying.
5. Earthing up the soil round the necks as the foliage starts to die down and tramping it firm, to prevent access—also mulching with fresh lawn mowings.

6. Careful scrutiny of the bulbs when lifted to detect any grubs—This is done by cleaning the base and investigating any depression or discolouration. For this purpose, I use an old dentist's scalpel. In November, December, the grub is usually small, but by February or March, has eaten so much that the bulb feels hollow.
7. Sterilization by hot water treatment at 110°F. for one hour, of the bulbs, before planting.

I have written to the Royal Horticultural Society giving my views on the subject, which may be of some use. Collection of the puparia is a slow and laborious job and not reliable, though useful. The digging up of bulbs with defective foliage is often too late—the grub has gone. I prefer to catch the flies, not on the wing as suggested in England, but by growing marigolds and a yellow sedum close to the daffodils. The flies settle on these and can be easily identified and caught with a net. They congregate in full sun in a sheltered position on these flowers or adjoining rocks, but disappear in windy weather or if the sun happens to cloud over. At the same time, I keep the ground round the bulbs well cultivated and trampled, to prevent access by the young grubs, which must die for lack of food. I find that very few of the grubs enter the bulbs at the necks—almost always at the base. Careful examination of all bulbs this season has shown that these methods have been reasonably effective, and that a smaller percentage of bulbs than ever, has been infected. Very few grubs seem to have been missed last year, so that the infection has come from other gardens, whose owners have not adopted the same methods of control.

Unfortunately, very few people know, or can recognize the fly, and even some seedsmen do not realize the danger or the implication of "soft" bulbs that they offer to the public. The daffodil belongs to the Natural Order of Amaryllidaceae and probably some of the other bulbs of this family act as hosts to the fly.

THE SECRETARY'S NOTE BOOK.

HYDRANGEA COLOUR: The Secretary is indebted to Messrs. R. L. Archibald and R. R. Martin, Wellington, for a duplicated copy of a "Report of Influence of Aluminium on the Flower Colour of *Hydrangea macrophylla* ser." by R. C. Allan, of the Department of Floriculture and Ornamental Horticulture, Cornell University, Ithaca, New York, U.S.A.

Mr. Archibald is a well known grower as would be expected from a nephew of the late Charles Archibald of Days Bay, Wellington, the pioneer enthusiast of the *Hydrangea*. Mr. Martin is also well known as an enthusiastic grower, exhibitor and judge of this flower at the recent "Dig for Victory" Exhibition in the Town Hall, Wellington.

The whole report is intensely interesting but there is only space for the Summary which reads:—

"1. Experiments conducted demonstrate conclusively that the blue flower colour of *Hydrangea macrophylla* is due to the presence of aluminium in the flower tissue. Aluminium compounds consistently induced a change in colour from pink to blue when allowed to infiltrate the tissue of mature flowers. Iron compounds produced a dark greenish-blue colour that was not comparable to the natural blue colouration.

2. Iron compounds allowed to infiltrate into chlorotic plants induced chlorophyll development in the leaves and buds, but did not affect the colour of the flowers. Aluminium compounds induced blue colour but did not remedy the chlorotic condition.

3. The flower colour of plants grown in sand cultures was closely related to the aluminium content of the nutrient solution. A nutrient solution containing 13.48 p.p.m. of aluminium produced mauve coloured flowers, while 134.8 p.p.m. induced clear blue flowers. With especially prepared plants and purified sand, the individual effects of iron and aluminium were shown. Iron in the nutrient solution prevented chlorosis in the leaves and flower buds, but did not affect flower colour. Aluminium induced blue flower colour, but did not prevent chlorosis.

4. The aluminium content in blue flowers was higher than that of pink ones. Blue flowers from plants grown in sand cultures had an aluminium content of more than 250 p.p.m.; pink flowers contained less than 150 p.p.m., while mauve flowers varied from approximately 150 to 250 p.p.m. Bright blue flowers from plants growing in the field usually contained 800 to 900 p.p.m. of aluminium, although the amount varied widely depending upon the conditions under which the plants were growing. Aluminium compounds added to the soil increased the aluminium content of the flowers.

5. The iron content showed less relationship to the flower colour than did the aluminium. Blue flowers from plants growing in soil had a higher iron content than pink ones, but in sand cultures, where the amount of iron in the nutrient solution was controlled, some of the blue flowers contained less iron than the pink.

6. Flowers produced in plants grown from cuttings in soil at pH 5.5 or below were blue. Between pH 5.5 and 6.25 the flowers were intermediate between pink and blue. Above pH 6.7 the flowers normally showed no trace of blue. Blue flowers were produced on plants growing in alkaline soil at pH 7.5 or above. There was evidence that aluminium could be accumulated in the tissue and bring about mauve or blue colour when the plants were transferred to neutral or alkaline soil.

7. Single plants were caused to produce flowers varying from clear blue to clear pink by dividing the root system and growing the two halves in different types of soil. Wherever there was a vascular connection between the roots growing in acid or aluminium sulphate treated soil, the flowers were blue.

8. Some varieties failed to produce clear blue flowers in soil made acid by the addition of aluminium sulphate. Flowers of the same varieties turned blue when aluminium compounds were sprayed on mature sepals or absorbed through a slit in the stem."

The following quotations from "Science lends a Hand in the Garden" by Sir Frederick Keeble, London, accompany the copy of the Report forwarded by Messrs Archibald and Martin:—

"For over a century the belief has been held that aluminium is the agent provocateur of the change from blue* to pink*. Now and again, the claims of iron have been put forward, but on the whole, aluminium has remained first favourite." (*Surely, the author means the change from **pink** to **blue**).

"Those who care little for theory and prefer practice may learn from the experience of E. M. Chenery, which he has described in the "Journal of the Royal Horticultural Society," who says that a sure way to make pink Hydrangeas blue is to pot up rooted cuttings in August* or September* using a soil composed of three parts rich eucumber soil (without lime) and one part oak leaf-mould. Such a soil will be markedly acid, and acid soil is essential for the production of a good blue colour. Then, when the potting is done, Mr. Chenery recommends a scattering of coarsely ground crystals of aluminium sulphate over the soil at the rate of $\frac{3}{4}$ of an ounce for a 5 inch and $1\frac{1}{2}$ ounces for a 6 inch pot. Next year all the flowers will be blue."

For treating an established bush in the open, the author quotes Mr. Chenery as having found that "Ten pounds of aluminium sulphate will do and recommends that it should be done in November*.

The author, however, suggests February* or March*. The chapter concludes "Should anyone tire of blue Hydrangeas, and some tire of everything, they can easily get them pink again. Slowly, by leaving the plants alone, quickly, by treating the soil with two pounds of ground chalk to the square yard." (The author would be less optimistic if he had certain New Zealand soils to contend with).

*The above months refer to the northern hemisphere, and six months' allowance must therefore be made for New Zealand.

DAHLIAS: Mr. James Mason, 80 West Street, Feilding, staged fine exhibits of Dahlias at the various Autumn shows in the Wellington District, including that of the Karori Horticultural Society. He was then asked for a list of worth while varieties and here is an extract:—Cactus—Dominant, lilac rose to sulphur yellow; Golden Glory, gold to apricot; Golden Web, gold; Greater Glory, creamy yellow to lilac; Lady Huntingfield, rose pink; Landmark, yellow and amber; Madam G. Pezant, mid red; Petunia, lilac and Mrs. G. Chandler, rosy lavender. Medium Decorative—Ballego's Glory, mahogany edged gold; Dieul de Roi Albert, purple edged white; Golden Pheasant, gold tipped orange; Miss Brenda, lemon yellow to salmon pink; Pope Pius XI, honey gold, tipped white; Red Champion, crimson and Rosa Lines, cream, chamois and pink. Miniature Decorative:—Oxford Beauty, dark red to amaranth pink; Kitty Colman, pure pink; Golden Gift, old gold to bronze; E. J. Hipwell, scarlet, tipped gold; Fairy, rose pink; Golden Orb, lemon yellow to yellow and maize; Marketable, cyclamen pink; Sergeant-Major Bailey, bronze apricot; Verity Wadsworth, yellow and Willy den Ouden, yellow, tipped scarlet.

Miniature Cactus:—Artist, yellow, overlaid cherry; Fairy Dell, lemon, overlaid pink; Lady's Fancy, lemon with mauve; Melva Stokes, gold to scarlet; Rialto, fuchsia, suffused blue; Wesburn, cream, overlaid rosy cerise; Burnette Pink, salmon and rose; Alan Carter, cyclamen on cream; Andrie's Orange, brilliant orange; Casula Glory, apricot; Chandelier, creamy yellow to honey gold; Dorothy Abbott, lemon yellow, tipped heliotrope; Kensington Radiance, bronze, suffused old rose; Little Darling, pink, cream centre; Piccaninny, dark red and Valma Sharkie, salmon gold, yellow centre.

Miniature Paeony:—Bishop of Llandaff, red with dark bronze foliage; Copper Coin, copper and gold; Dame A. Godman, flame pink; Dorothy Russell, bright red; Mabel Smith, brownish fawn; Placid, creamy white to pink and Symphonia, vivid scarlet, dark bronze foliage.

Pompones:—Burwood, yellow, tipped bronze; Doria, deepest maroon; Dossie, cream overlaid rosy purple; Golf Ball, yellow edged bronze; Greda, a lively amber; Ila, blood red; Joyce Gibbs, waxen mauve pink; Leslie, silver and rosy mauve; Little Beeswing, yellow

base heavily edged red; Little Conn, blood red; Little Princess, pure yellow; Margaret Williams, deep rose pink; Rhonda, lilac on cream; Ted Thomas, pink and Valda, mulberry.

ROSE PRUNING: General Rules are to visualize the future bush, cut out all dead, diseased, exhausted and spindly wood, and take care that the centre is not crowded. Make a slanting cut a quarter inch above the best outward bud on the stem. If it has not shot at the proper pruning time, cut it just the same.

Rule 1. Newly planted or transplanted roses whether bushes, standards or climbers, are invalids and should not be pruned until the eyes, or leaf buds, have started to shoot.

Rule 2. Established bush Roses come under General Rules.

Rule 3. Bush cluster Roses e.g. Dwarf Polyantha and Hybrid Polyantha, single Roses and Rose species. Prune at same time as large flowered bush Roses and observe General Rules. If bedding out effects are desired for small beds in formal gardens, the pruning of Dwarf and Hybrid Polyantha Roses can be as severe as desired.

Rule 4. Standard Roses are pruned like the corresponding bush Roses i.e. under General Rules with the difference that special attention must be given to the symmetry of the head. Unless there is a strong outward growing new shoot at the end of a stem, its tip must be cut off above an outward pointing eye, whether that eye has started into growth or not. Extra strong shoots should be shortened to preserve the general shape of the tree.

Rule 5. Climbing and rambling Roses, excepting the climbing sports of large-flowered bush Roses, should be pruned in the autumn taking out all dead etc. wood as under General Rules. Shoots of the long flowerless types are retained while short shoots that have flowered already are cut back to two or three eyes.

Standard Roses of this group are pruned in the same manner.

Rule 6. Climbing sports of large-flowered bush Roses and Roses of similar habit are pruned during the winter and come under General Rules.

Rule 7. Rejuvenating neglected and maltreated Roses should be dealt with under General Rules.

Most of the foregoing has been extracted or adapted from a fine article on "The Science of Growing Roses" by S. C. Bradford, D.Sc. which appeared in the R.H.S. Journal Vol. LXVII Part 7.

GARDEN ROSES:—The following list has been kindly supplied by Mr. R. M. Porteous, Wellington, the well known grower and exhibitor. Those marked * are also exhibition roses:—Betty Uprichard, orange pink; *Catherine Kordes, crimson scarlet; *Comtesse Vandal, reddish copper, edged pale pink; Crimson Glory, deep velvety crimson; *Editor McFarland, deep pink; *Elite, rose, shaded orange; Emma Wright, deep orange; *Ethel Somerset, pink; Golden Dawn, light yellow; *Hector Deane, orange and carmine; Lady Mandeville, yellow, shaded buff; Lady Sylvia, flesh pink, yellow base; McGredy's Sunset, buttercup yellow, shaded gold; *McGredy's Triumph, gran-

ium scarlet; *McGredy's Yellow, pale yellow; *Mrs. H. Morse, pink, lighter reverse; *Mrs. Sam McGredy, coppery orange, splashed red; Picture, clear rose pink; *President Hoover, orange and gold; Shot Silk, orange rose, shaded yellow; *Sir Henry Seagrave, primrose yellow; Violinista Costa, scarlet, shaded strawberry and gold and *William Orr, deep velvety crimson.

SYLLABUS IN HORTICULTURE.

The Canterbury District Council of the Institute has always taken a leading part in Horticultural Education as a preparation for the Institute's Examinations and also in the local conduct of such Examinations, with particularly good work in respect of the oral tests and practical tests.

For years past a Syllabus in Horticulture has been held by the District Council at the Christchurch Technical College and that for the current year is appended for the information of members and of other District Councils.

ROYAL NEW ZEALAND INSTITUTE OF HORTICULTURE.

1944 SYLLABUS IN HORTICULTURE FOR STUDENTS AT CHRISTCHURCH TECHNICAL COLLEGE.

Tuesday Evening, 7-9 p.m.

- Feb. 29th.—Soils, their Composition and Properties. L. W. McCaskill, M.A.
- March 7th.—The Soil, its treatment and cultivation, with tools and implements used. R. G. Cooper, N.D.H. (N.Z.).
- March 14th.—Organic Manures, including the Compost Heap. Their treatment and use. L. W. McCaskill, M.A.
- March 28th.—Propagation of softwoods. J. A. McPherson, N.D.H. (N.Z.).
- March 31st.—Inorganic Fertilisers, their manufacture, treatment and use. L. W. McCaskill, M.A.
- April 4th.—Lawns and Playing Greens, their preparation, establishment, and the implements used for this purpose. W. Maine.
- April 18th.—Lawns and Playing Greens, their preparation, establishment, and the implements used for this purpose. W. Maine.
- May 2nd.—Spring and early summer displays. Annuals, Biennials and Bulbs. J. A. McPherson, N.D.H. (N.Z.).
- VACATION.
- May 23rd.—The Elements of Plant Breeding. C. E. Foweraker, M.A.
- May 30th.—Ornamental Trees, their care, cultivation, and use. J. A. McPherson, N.D.H. (N.Z.).

- June 6th.—Ornamental Shrubs, their care, cultivation, and use.. J. A. McPherson, N.D.H. (N.Z.).
- June 13th.—Hedges, Shelter Belts and Seaside Planting. J. A. McPherson, N.D.H. (N.Z.).
- June 20th.—Small Fruits and their Cultivation. Strawberry, Currants, Gooseberry, etc. Horticulture Division, Department of Agriculture.
- June 27th.—Stone Fruits, Apricot, Cherry, Nectarine, Peach, Plum. Horticulture Division, Department of Agriculture.
- July 4th.—Pip Fruits, Apple, Pear, Quince and the Grape. Horticulture Division, Department of Agriculture.
- July 11th.—Plant Protection—Insect Pests. D. Combridge, N.D.H. (N.Z.).
- July 18th.—Plant Protection—Fungoid and Bacterial Diseases. D. Combridge, N.D.H. (N.Z.).
- July 25th.—The Care and Maintenance of Trees. R. Miller.
- Aug. 1st.—Propagation of Hardwoods. R. Bullman.
- Aug. 8th.—Propagation by Seed, and the raising of Seedlings. R. G. Cooper, N.D.H. (N.Z.).
- Aug. 15th.—Glasshouse and Frame Management. R. G. Cooper, N.D.H. (N.Z.).

VACATION.

- Sept. 12th.—Roses and Rose Gardens. W. B. Broekie, N.D.H. (N.Z.).
- Sept. 19th.—Summer and Autumn Bedding Schemes, cultivation and arrangements. T. D. Lennie, N.D.H. (N.Z.).
- Sept. 26th.—Vegetables—Root and Alliaceous crops. C. Grant.
- Oct. 3rd.—Vegetables—Leaf, Stem and Fruit Crops. C. Grant.

LODER CUP COMPETITION, 1943.

The Loder Cup was presented by the late Gerald W. Loder, afterwards Lord Wakehurst, of Sussex, to be competed for annually in accordance with such conditions as might be approved by the Minister of Agriculture, in whose custody the cup was placed.

Under the present rules, the award is to be made to any properly nominated person or body of persons, whether corporate or unincorporate, who or which has excelled all other nominees, in the year of the award, in furthering the wishes of the donor as engraved on the cup:—"To encourage the protection and cultivation of the incomparable flora of the Dominion."

For 1943 the award has been made to Mr. James Speden, of Gore, Southland, who was nominated by the University of Otago, Dunedin.

Mr. Speden has been an enthusiastic botanical explorer and cultivator of our native plants since 1911 and practically every

year has made botanical excursions into the lesser known mountain regions of western Southland and Otago for the collection and photography of native plants including several new species amongst which is *Aciphylla Spedeni*.

He has been especially successful in the cultivation of native plants, having a large native garden, well known to botanists and horticulturists, including many hundreds of species of shrubs and mountain herbaceous plants.

As well as being a successful photographer of native plants in their natural habitats, Mr. Speden has given lectures on various occasions, illustrated by his own lantern slides of the native vegetation.

Copies of these photographs have been freely given as well as seeds and plants for cultivation to interested individuals and public gardens here and overseas.

REVIEW.

IMPERIAL BUREAU OF HORTICULTURE AND PLANTATION CROPS.

TECHNICAL COMMUNICATION No. 14.

“Propagation by cuttings and layers, recent work and its application, with special reference to pome and stone fruits.”—By R. J. Garner, East Malling Research Station, Kent, England. I.A.B., Control Sales Branch, Agricultural Research Building, Penglais, Aberystwyth, Great Britain, 3/6.

Foreword by R. G. Hatton, Director of the Station, is followed by a Review of the Literature—some 250 papers—covering, under Propagation by Cuttings, Source of Material, Handling of Cuttings prior to planting, Planting and subsequent Treatment; under Propagation by Layers, Stooling, Layering and Marcotting, which is variously known as air layering, circumposition or gootee and Other Methods of Propagation—Division, Palyembryony and Other Methods of Propagation—Division, Polyembryony and Twinning.

The Practical Application of Research Findings and Methods used at East Malling Research Station deals with A. Hardwood Cuttings, B. Softwood Cuttings, C. Leaf-Bud Cuttings and D. Root Cuttings under Varieties, Source of Material, Handling prior to Planting and Planting and subsequent Treatment, Etiolation Method and Stools under Varieties, Establishment, Treatment in second, third and subsequent years and Handling the Crop and Tip Layers under Varieties, Source of Shoots, Manipulation and subsequent Treatment. Thoughts on Future Research and a full list of References complete a most interesting and informative publication.

SUMMARY OF PROCEEDINGS OF TWENTY-FIRST ANNUAL MEETING.

The Twenty-first Annual Meeting was held in the Board Room, Commercial Travellers' Building, Wellington, on Thursday, 27th January, 1944, at 10 a.m.

The Annual Meetings of the New Zealand Florists' Telegraphic Exchange and of the New Zealand Horticultural Trades' Association were held at 9 a.m. and 1 p.m. respectively on the previous day and at the same place. The Annual Meeting of the Horticultural Seedsmen's Association of New Zealand was held at 2 p.m. on Tuesday, 25th January, 1944, in the Board Room of Messrs. F. Cooper Ltd., Dixon Street, Wellington.

ROLL CALL: In addition to the President, Mr. Hope B. Gibbons, the following were present:—

Hawkes Bay District:—B. Teague.

Wairarapa District: L. Robinson.

Manawatu District:—Mrs. K. H. Dowrick.

Wellington District:—Mrs. Knox Gilmer, Messrs. Geo. Cooper, W. K. Dallas, W. T. Goodwin, Wm. C. Hyde, J. G. Mackenzie, A. McMillan, J. W. Matthews, G. S. Nicoll, Dr. W. R. B. Oliver, Messrs. J. C. Stirling and T. Waugh.

Canterbury District:—J. N. McLeod.

Otago District:—M. Matheson.

APOLOGIES: Mrs. W. Taylor, Messrs. E. J. Fawcett (Director-General of Agriculture), C. W. Corner, T. D. Lennie, J. C. McDowall and Percy Thomson.

MINUTES OF TWENTIETH ANNUAL MEETING held at Wellington on Thursday, 28th January, 1943 (as circulated in the Institute's Journal of April, 1943, pages 74 to 77) were confirmed.

CONFERENCE, 1943, RESOLUTIONS AND REMITS:—Report on action taken regarding these was adopted.

PRESIDENT'S ADDRESS: In greeting the delegates present and particularly those from outside Wellington, the President welcomed all to our twenty-first annual meeting. At twenty-one, one automatically enters the adult age, would that it could have been under better circumstances, when it could have been suitably celebrated!

Let us all hope that the war will be over before our next annual meeting, when Horticultural Week will be for us a week designated to the progress of our particular interests, and a demonstration of our decision to push things along.

The last issue of our Journal recapitulates the proceedings which instigated the inauguration of this Institute. It is appropriate that we are reminded of the matters then discussed.

May I refer to the Report of your Executive Council under the heading of Education? I do emphasize our thanks to the Chairman, Members and Examiners, who worthily carry out a labour of love.

The "Dig for Victory" Campaign is a great effort, and we wish every success for their Exhibition in the Wellington Town Hall on the 9th, 10th and 11th February.

I want to thank the members of your Executive Council for their work and our untiring Secretary, George Nicoll, who is always on the job.

While war is the greatest destructor and cause of waste, sometimes we may think only of this aspect. But war, like other disasters, has at least a tendency to accentuate progress to hurry up evolution. And so, war has caused development in New Zealand of vegetable production, seed production and the growing of medicinal plants. It has also demonstrated the necessity and value of tree planting and particularly it has caused many people to seek sanctuary in Nature.

We all know what a relief it is to get away from the stress of affairs; to retire to our garden, whether it be a vegetable plot or a flower garden, or both. It seems, therefore, that we can visualize an increase in the interests and activities of private gardening. That will come naturally.

But what of Public Gardens? Therein, it seems to me, lies an opportunity for us. Everything we can do to assist in the extension of existing Public Gardens, Reserves, Parks and Playing Fields and the creation of new ones is a first class service to mankind. Can anyone suggest a better addition to the amenities of life or better employment for those who return from fighting our cause?

Looking back over the records of this Institute, I can definitely say that we have accomplished much, but not enough. I am sure that progress in horticultural matters has not been fast enough for any one of us.

I said that war has a tendency to accentuate progress. Let us make sure that it speeds up our progress.

EXECUTIVE AND EXAMINING BOARD'S REPORT AND STATEMENT OF ANNUAL ACCOUNTS as published in the Journal of December, 1943, were adopted on the motion of the President after the passing of a resolution that these be taken as read.

It was mentioned that, although the Auditor's Certificate was not shown on the printed copy of the Balance Sheet, it had since been given.

In the course of the discussion on the reports, Mr. MacKenzie made reference to Dr. Cockayne's fine foundation work on Education which had been so ably carried on by Professor H. B. Kirk. Rehabilitation bristles with difficulties at present, but it will be successful later on. He mentioned that the Dominion Secretary had been in office over eleven years and had done good work for the Institute which was now well established.

Mr. L. Robinson, newly-elected President of the New Zealand Horticultural Trades' Association, said that they would co-operate in every way and would advise the Institute what they are doing. (Actually reports are exchanged and each body mentions the other meeting in the Annual Order Paper.)

The Secretary wished to make it clear that, although Mr. Dallas was Convener of the Executive's Rehabilitation Committee, he had been so busy that he had been unable to attend any Executive Meeting from September onwards.

Mr. Dallas congratulated the Institute on its present position and finance, but more could have been done by seeking new members, donations etc., and assistance in this direction could be sought from District Councils. He expressed appreciation of Mr. Barnett's assistance with Rehabilitation which involved education and training also the finding of positions and employment. More information is required before we can proceed very far. If we knew the five year plan of the New Zealand Horticultural Trades' Association and other Horticultural bodies and the Rehabilitation Board will want to know what educational facilities are available and how many can be employed. The Board may suggest other available facilities e.g. Colleges such as Lincoln and Massey. Park Superintendents have done good work in the past in assisting students with examinations, and many students have also done well overseas. With reference to the importance of Food Production, backyard gardens, in future, will play an important part in enabling New Zealand to have a surplus available for providing food for services and people in other parts of the world.

ELECTION OF OFFICERS: All officers from last year, including the President, were re-elected. Inquiry is to be made from Timaru regarding Mr. G. E. Knowles and Miss Newton replaces Mrs. Fisher

as representative of the New Zealand Florists' Telegraphic Exchange.

HON. AUDITOR: Mr. J. L. Arcus was re-appointed with a vote of thanks and appreciation for conveyance.

LINCOLN COLLEGE AND MASSEY COLLEGE: The President mentioned the Course in Horticulture at each of these Colleges. The Examining Board had had a good deal of work with two special meetings—one for discussion with Professor Hudson, Director of Lincoln, and the other for suggestion and consideration of amendments to Lincoln's Syllabus, which would put it more into line with that of the Institute.

Massey College Grounds have already been "approved" but word had since been received from Lincoln that its Course had to be deferred until next year pending the appointment of a lecturer.

RESOLUTIONS ADOPTED.

The following resolutions, forwarded by the Canterbury District Council, were adopted as amended:—

ORAL AND PRACTICAL TESTS.

"That in view of the importance of the oral tests and practical tests, it be a recommendation to the Executive Council to request the Examining Board to include these in a graduated Syllabus."

NATIONAL HORTICULTURAL WEEK.

"That National Horticultural Week and the National Flower Show be reinstated at the earliest possible date."

It was agreed, on the suggestion of Mr. T. Waugh, that other National Bodies and the Joint Committee should be consulted.

A further resolution adopted was

HORTICULTURAL EDUCATION.

"That appreciation be expressed of what the Colleges propose doing and also of the Education Department and its sphere and that they will carry out this additional service in co-operation with the Institute."

INSTITUTE NOTES.

PERSONAL:—It is pleasing to record that Mr. Wm. C. Hyde, Horticulturist, Division of Horticulture, who retired at the end of last year, is continuing on the Executive Council of which he has always been a most interested and helpful member as also of the Examining Board.

It was reported, at the March Executive Meeting, that advice had been received from Mr. J. A. McPherson of his return from overseas and resumption of his position as Director of the Botanic Gardens, Christchurch.

Mr. B. P. Mansfield, Invercargill, overseas, forwarded seasonal greetings to the Executive Council's January meeting.

Welcome was extended at the February meeting to Miss E. M. Newton, representative of the Florists' Telegraphic Exchange.

EXAMINATIONS:—The following passes have been recorded for the 1943 Annual Examination:—Junior Certificate:—G. G. Henderson, Miss D. I. Kitson and John O. Taylor (Christchurch) and Miss A. C. Nichol (Dunedin). Intermediate Certificate:—Miss M. F. Crawford (Dunedin), Mr. G. B. Malcolm (Christchurch) and Mr. C. B. W. Oldridge (New Plymouth). Diploma:—Miss P. Long (New Plymouth). Mr. G. A. R. Petrie (Invercargill) was granted a Certificate for a Pass in the further Special Subject of "Vegetable gardening."

J. A. CAMPBELL AWARD for the best Intermediate Student for 1943 was made to Mr. C. B. W. Oldridge, New Plymouth.

LINCOLN AGRICULTURAL COLLEGE:—At the February Meeting of the Executive Council, advice was received from the Examining Board of the deferment of the Course in Horticulture until next year pending the appointment of the Senior Lecturer.

CANTERBURY DISTRICT COUNCIL held its Annual Meeting on the 1st December with a good attendance. Report of the retiring Chairman, Mr. M. J. Barnett, was read and received with appreciation and satisfaction was also expressed with the recent increase in membership.

POST PRIMARY SCHOOL CURRICULUM. Dr. W. R. B. Oliver submitted a copy of this to the February Executive Meeting, pointing out that it includes Education Course lists in which Horticulture is included as an optional subject.

Dr. H. H. Allan thought that the Education Department's Syllabus should be linked up with the Institute's, by courtesy of Dr. Oliver.

After circulation to members, by courtesy of Dr. Oliver, and consideration at the March meeting, it was thought that the ground had been fairly well covered but that the order etc. could be improved by reference to the Examining Board.

WELLINGTON WINTER GARDEN. A deputation consisting of Mr. Hope B. Gibbons, President of the Institute, Captain S. Holm, Mrs. A. J. Du Pont and Mr. G. C. Beckett of the Wellington Beautifying Society, waited upon the Reserves Committee of the Wellington City Council, on the 6th March, to support a scheme for the erection of a Winter Garden and met with a sympathetic reception.

DIG FOR VICTORY EXHIBITION:—On the motion of Mr. W. K. Dallas, Director of the Horticulture Division, Department of Agriculture, the Executive Council decided, at its February meeting, that appreciation should be expressed and congratulations on its success conveyed to the Junior Chamber of Commerce, Wellington, Dig for Victory Exhibition Committee, Wellington Horticultural Society and Hutt Valley Horticultural Society.

It was also further resolved to extend congratulations and thanks to the Dominion Secretary, for what he had done as Chairman of the Dig for Victory Exhibition, 1944, Committee.

"VEGETABLE GROWING IN THE HOME GARDEN." At the February Executive meeting, Mr Dallas handed to each member a copy of this Dig for Victory Campaign Publication which was first issued at the recent Dig for Victory Exhibition at Wellington and is still on sale by the Department of Agriculture at sixpence each for 64 pages, including a coloured lay-out of a garden designed for suitable succession and catch crops. The President considered that it was a really good job and that "though dealing with vegetables, it was full of meat." He moved—"That the Department of Agriculture, the Director of its Horticulture Division and its Author, Mr. D. K. Pritchard, were to be congratulated," and this was carried unanimously.

CONDOLENCE has been conveyed to the widow of Mr. A. W. Nisbet, Lower Hutt, representative on the Executive Council of the Dahlia Society of New Zealand, who was accidentally drowned on the 11th January through the foundering of a launch in Cook Strait.

Sympathy has also been conveyed to Mr. W. K. Dallas on the loss of his father.

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