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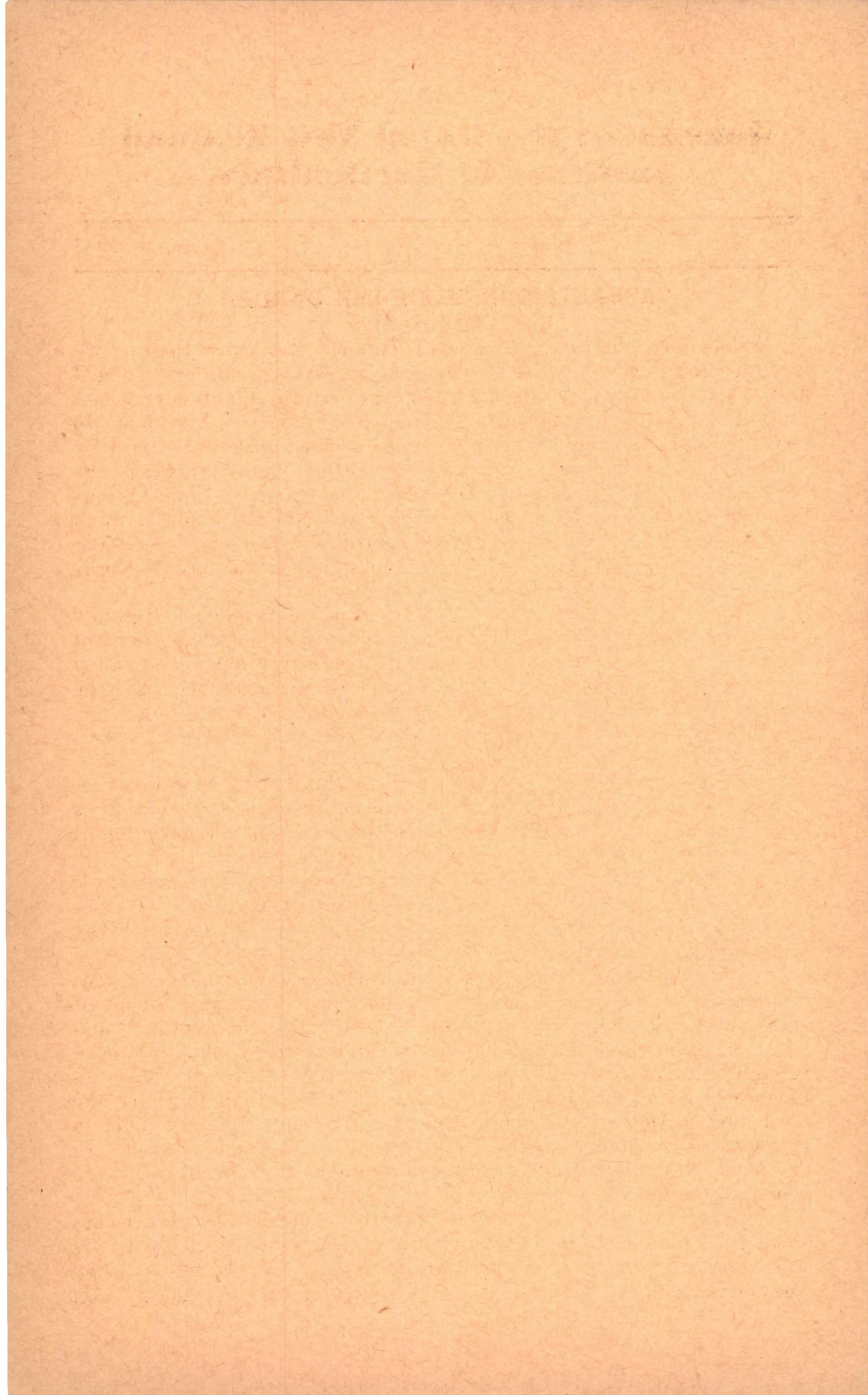
**JOURNAL
OF THE
ROYAL NEW ZEALAND
INSTITUTE
OF
HORTICULTURE**

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Journal of the Royal New Zealand Institute of Horticulture

VOL. 14. No. 3.**DECEMBER, 1944**

CASUALTIES IN THE HOME GARDEN.

(By D. Cairns, M.Sc.).

When man disturbs the delicate balance of nature there is always a debt to pay. So it is when the forests are cut and burned and the steep hill slopes left without the natural plant cover—soil erosion with all its accompanying tragedies is part of the debt we pay. So also man has harnessed plants for food production and by judicious plant-breeding, intensive cultivation and manuring, the maximum growth is secured; but again the balance of nature has been disturbed and the conditions which are favourable for growth encourage a great invasion of plant enemies. The right soil conditions and growing conditions give the signal for a major attack. Very often this is disastrous to man's efforts.

The home gardener, in the forefront of to-day's food production drive, has to meet this invasion and to do so entails a constant vigil on his part with the spray pump, protective dusts and many other repellants. How often we give a weary sigh and feel that the contest is too uneven or the fight is not worth the effort. Some succumb to this temptation and the back garden lapses into a wilderness of grass and weeds.

The scientist is constantly at work in this battle. Besides providing vital information for plant protection in order that our crops may be saved, he is constantly seeking disease resistant varieties so that disease may no longer take its toll in the garden.

Casualties in the home garden may be grouped under three headings—(1) those caused by physiological disturbances, (2) those caused by fungous and bacterial diseases, and (3) those caused by virus diseases. I propose to deal with each of these briefly in turn.

In the group of physiological disturbances we class a great number of deficiency diseases. These are caused through a lack of certain essential minerals in the soil. As the Dig for Victory Campaign has increased in its popularity and more ground has been brought into cultivation than ever before, these deficiency diseases have been found to be quite common. In many ways they are the most surreptitious of all plant ailments. We may compare them to anaemia in the human body being caused by the lack of iron. In the same way plants may become very unhealthy through the absence in the soil of some vital plant nutrient.

One of the most interesting of these deficiency diseases occurs through the lack of the element boron in the soil. Most gardeners have noticed swedes and other turnips with a brown centre when they are cut open. The tissue in the centre of the root has a water

soaked appearance and is surrounded by perfectly healthy tissue. In advanced cases of deficiency the centre of the root may be hollow and dry. It is found also in cauliflowers where the stem becomes hollow and brown, and it causes the cracked stem of celery and the corky pit or corky core of apples. Indeed it is quite widespread—affecting cabbages, beetroot, mangolds and citrus fruits in addition to those already mentioned.

You may readily imagine that such an important deficiency has been very thoroughly studied. It has been found that certain soils are very low in boron content and others, under the intensive cropping such as is carried out in the home garden, soon become deficient. Disease makes its appearance and if we grow turnips or swedes the warning signal will be found in the brown heart of the roots of these two vegetables.

The remedy is simple and spectacular. Finely granulated borax at the rate of about 20lbs. per acre to the soil will eliminate the disease entirely. It is advisable also to adhere to a stricter rotation of crops—indeed this is one of the secrets of good gardening.

Other deficiency diseases may be caused by the lack of potassium, phosphorus, manganese, iron and nitrogen.

The first of these—shortage of potassium, causes the margins of the leaves of affected plants to curl sharply upwards with severe browning or scorching. This may be seen in beans, cauliflower, cabbage and kale plants. The foliage of potato plants becomes bronzed and the leaves scorched; the leaves die prematurely and the potato stems collapse in severe cases. The same deficiency in broad beans is characterized by a stunted plant with the margins of the leaves tinged blue and curled upward. The scorching or browning of the margin is seen also in apple, gooseberry, black currant, red currant and raspberry plant leaves.

Adjustment of the potassium deficiency is remedied by the application of manures containing potash—such as sulphate of potash.

It is thus possible by recognizing some of the symptoms to tell the actual mineral missing and by its application in suitable quantities to the soil, deficiency diseases may be overcome. Shortages of calcium, nitrogen, phosphate and iron can be detected in this way.

The second group of diseases under the general title of fungous and bacterial diseases covers a large group of the better known garden enemies. It would be impossible in an article of this length to cover them all. They cause a great deal of harm in every garden whether large or small. The national annual loss through their depredation is considered to be over £100,000. The scientist is busily engaged in providing the gardener with suitable sprays and dusts to protect his plants and is searching far and wide for disease resistant types. Some of these are now nearing reality—blight resistant potatoes, wilt resistant tomatoes, beans resistant to wilt and other.

A few examples of these diseases as they affect the home gardener will indicate the serious casualties they can inflict. A fungus disease called "damping-off" attacks young seedlings in the seed box or seed-bed. Apparently healthy young plants suddenly collapse on the soil and die—the attack usually reaches epidemic proportions. This sudden collapse is caused by a fungus which is present in the soil in the form of tiny spores. Given suitable conditions it attacks the healthy seedlings at ground level, causing a heavy mortality. Conditions which encourage epidemics are crowded seedlings in the box, and the soil watered too liberally. Treatment consists of using steam sterilized soil or treating the soil with formalin and various other compounds. By sub-irrigating with dilute formalin, even when the young plants are quite large, satisfactory control of "damping-off" can be effected.

Another fungus disease, which tends to become prevalent in the small home garden as a result of the intensive cropping programme, is one very appropriately called club root. This disease affects most of the members of the plant family, *Cruciferae* which we grow for food in our home garden. These are cabbage, cauliflower, swedes, turnips, curly kale and others. Once you have encountered this disease in your garden you will not forget it. Firstly you will notice that the plants mentioned are making poor growth—then when you pull one up you find the root is grossly malformed and misshapen. Large lumps and gnarled growths have replaced the normal root system. The spores of this fungus are harboured in the soil and attack the healthy root of the young plant causing the malformations mentioned. Particular soil conditions are known to favour its growth—such as acid conditions following heavy applications of superphosphate and other artificial manures. Also its attack becomes serious if crops liable to the disease follow each other in the same piece of ground. The remedial treatment is a heavy application of lime and a regular rotation of crops.

Space prevents reference to the soft rot of lettuce, rust of silver beet and beetroot, blight and wilt of tomatoes and potatoes. All these and many more can be successfully met and defeated. The home gardener need not feel discouraged by the army arrayed against him. Victory is assured.

The final group of diseases known as virus diseases have proved the most difficult to combat. A virus is a sub-microscopic form of life but is none the less virulent in its attacks. Viruses are spread by the insect we call greenfly or aphides or by thrips, which feed on the plant by sucking the juice. Passing from plant to plant they transfer the virus and in a remarkably short time a whole crop may be affected by this method.

The virus in the plant causes a number of peculiar effects which we called diseases. In potatoes the virus causes the leaves to roll up and the whole plant shows a shrivelled unhealthy appearance. The crop is reduced to a few small unmarketable potatoes. Another virus causes a mosaic formation on the leaves where there are blotchy

areas of dark and light green. This also affects the growth of the plant. Tobacco and tomatoes are both very subject to attacks by virus diseases. It is interesting here to note that the scientist has found that the smoker may transmit virus diseases from the cured tobacco on to healthy tomato plants. It is wise then not to smoke in the tomato house while you work with the plants.

Another virus disease called spotted wilt affects chrysanthemums, dahlias, zinnias, lettuce, tomatoes and a number of other important flowers and vegetables. It is transmitted from plant to plant by tiny insects called thrips. A common host plant in our gardens is the black nightshade. The leaves of affected plants show brown necrotic spots and eventually wither and die. This is seen typically in the lower leaves of chrysanthemums.

The scientist has met the challenge of the virus diseases by seeking resistant types and raising seed which is certified virus free. Remarkable progress has been made along these lines with potatoes.

If there have been heavy casualties in your home garden through pests and diseases don't give up in despair. Plant science is making great strides in the war against disease, hastening the day when this ogre will no longer stalk silently and unmolested through the land.

FAR OFF FIELDS ARE ALWAYS GREEN.

(By E. O. Petersen, Staff (Head Gardener) Mental Hospital, Porirua.)

Our gardens are large and widespread and our activities extremely varied, but perhaps not quite so varied as the men who work in and about them. In other places I have written of some of the outstanding characters, but the particular one who has always intrigued me is the old chap who invariably quotes Pliny. So much so, in fact, that if a discussion upon any gardening matter has reached a deadlock we turn to this man and ask "What has Pliny to say about this?"

There is always an apt, often too apt, reply and so it will be obvious that Pliny's wisdom is made to suit the occasion and indeed one is sure that we have here another case of Sairey Gamp and Mrs. Harris—for actually on several occasions Pliny has been known to give information to us about tomatoes and dahlias.

But my interest in Pliny is a more personal one, though I must hasten to say that I did not go to school with him, but as a boy I used to pore over a quaint book in which a large number of hand-coloured plates purported to portray the pigeons of the world. This book, of course, was not the work of Pliny, but the author, one P. J. Selby, had worked into his introduction an account of the life and death of Pliny the Elder, and this story had a curious fascination for me.

I still have the book—it is now nearly 120 years since it was printed—and the part of the life story that always attracted my eager attention was the account of the eruption of Vesuvius in A.D.

79, and it was here and at that time that Pliny met his death. There were eruptions before that early date, but this is really the first eye-witness description on record of the overwhelming of Pompeii and Herculaneum, and the story is so graphic, so startling in its detail and so thrilling in its drama, that I doubt whether ever present day journalism reached such heights.

The account was written by a nephew of Pliny in a letter to Tacitus, and one can picture the elder Pliny, then aged about 58 and somewhat corpulent, rushing about in the appalling darkness amidst the showers of burning debris with, of all things, a pillow tied on top of his head, as a hurried measure of protection.

These are interesting matters but as our main theme must be horticultural, I must leave them behind, and go on to say that it was many years later before I was able to satisfy my curiosity as to the work of this great naturalist. As is so well known, Pliny compiled a monumental work upon natural history—more than forty volumes, it is said—and of these seventeen were devoted to botany. And botany to Pliny meant farming and gardening, and we find many references to the "dignity of agriculture," but seeing that he was a practical gardener, mainly concerned with utility and not a farmer, we may take it that his remarks were intended, in part, to apply to horticulture. Here we have then the very earliest writer to refer to the dignity of horticulture.

We may hark back to the time of Pliny and say that he was a boy in the days of Pontius Pilate, and that in later life he was acquainted with Tiberius and Nero. Of course, he could not choose his contemporaries. Pliny tells us that Tiberius was especially fond of cucumbers and used to eat them every day. If literally true, this gives us a good indication of that man's wonderful digestive powers as well as of the skill of his gardeners.

Our author even details the system of growing these "fruits" all around the year for he says, "They were grown on beds such as went upon frames, to be removed every way with wheels to set them forward to the sun," and he adds that to improve their flavour and sweeten them the seeds were first soaked in milk and honey. He, himself, did not think very highly of cucumbers for he refers in another place to them as "breeding wind wonderful much," and he goes on, "Let a man eat them alone, they will be raw and green in the stomach a whole day and never be digested: howbeit with meats they are not unwholesome: and yet for the most part swim they aloft and rise upon a man's stomach."

Another note worth recording is that upon leeks. Nero, we are told, had a passion for singing and Pliny states that leeks were used by occasions of the Emperor Nero, who used for certain days in every month for to scour his throat and clear his voice, and to eat them with oil; in which days he did eat nothing else, not so much as bread."

An interesting note occurs also about a popular salad plant. We know the lettuce as "*Lactuca*," and Pliny tells us that noble

families were proud to take their surnames from the products of the land, and the family of Lactucini derived their name from the choice lettuces grown by them on their estate. Others gave their names to selected varieties of plants, and a fine cherry of Pliny's time was known as *Pliniana*.

In the writings of Pliny the Elder we see the garden solely as a source of vegetables for food and for physic, but in the work of his nephew we have the opposite school, that which in modern parlance we so vaguely call the landscape gardener, so that by combining the two we have, in a way, the complete garden.

Thus we see the Elder viewing pleasure gardens with suspicion, and even referring to them as undesirable inventions, and stating quite definitely that a garden was properly a poor man's allotment—all that he had to ensure a regular and abundant food supply—for the produce of a garden was cheaper, more ready to hand, and was above all a home industry to be encouraged in every way. But pleasure gardens had a savour of an untrustworthy, even a sinister, Greek influence, which all right thinking men should combat.

Thriftless people preferred to buy their food in the market and would not content themselves without dainties, but salads were far preferable. "They are light and easy of digestion, they breed no heaviness in the head, they offend not the brain, nor any of the senses." These sentiments, so much in keeping with our "Dig for Victory" Campaign, however, are only upon the surface, for underlying all Pliny's work we note the desire to record wonders. So that of the herb Rue we find it recorded that it will grow better if stolen from another man's garden. But quite a number of people at the present time must hold a similar belief, and about many other sorts of plants also!

Rue was good for the eyes, and Pliny says "Engravers, carvers and painters do ordinarily eat rue alone for to preserve their sight." It was used as a mouthwash, and as a cure for "the torments of the belly," and was also a remedy for mitigating the effects of strong drink, not forgetting its use as an ear-drop to relieve deafness and overcome the "ringing found in the ears." Yet with all this, it must be remembered that Pliny was still a recognized scientific authority until well on into the eighteenth century, and it is obvious that many of the writers of the early "Herbals" dug deeply in Pliny for their astonishing facts.

The younger Pliny, only nineteen at the time of his uncle's death, had an entirely different outlook. He is very much the wealthy man of affairs, and of fashion, yet he still has plenty of leisure time wherein to enjoy the urban villa rather than the rustic cottage. The description of his country resort at Laurentum, seventeen miles from Rome, is preserved in his many Letters to his friends, and one surprising feature is the seeming modernity of his estates, for the detailed survey may well apply to a present-day landscape garden.

The elaborate villa with a central heating system—hot air car-

ried in pipes along the walls, and arranged to be cut off by little trapdoors in the various rooms—had three separate gardens. The first, close by the villa, was a purely formal one—a sloping garden through an avenue of box trees cut into the shapes of animals facing one another, and leading to a lower sunken garden protected by a wall, and a sloping bank with paths enclosed by cut evergreen bushes and curiously shaped box plants.

The next garden Pliny describes is a small court occupied by plane trees and fountains, with a garden room, the walls of which have paintings of trees and birds. "In the centre is a small fountain playing with several jets, and a fish pond lies immediately beneath; as charming to the eye as to the ear, while a waterfall breaks into foam with a delicious sound on the marble floor." The description hardly conveys the impression of a small court.

The third garden is a park-like expanse laid out in the manner of a large stadium. Pliny himself says that this garden is the great feature of the villa. "A space surrounded by plane trees covered with ivy, so that the tops of them are green with their own leaves and the lower portion green with the leaves of the ivy which creeps over the trunks and branches to form a perfect screen. Box and laurels are planted between . . . the garden runs in a straight line broken at the end into a semi-circle. A line of cypresses forms a background. Within these are several inner circles in full sunshine, planted with roses. At the end of these winding ways the paths, enclosed by box hedges, run straight again. An expanse of lawn opens to the view, with box trees cut into a thousand shapes . . . and a space in the centre is bordered on both sides by dwarf plane trees. At the end is a semi-circular seat of white marble shaded by a vine supported by four small columns of marble. Opposite the seat stands a summer house, resplendent in marble, with doors and windows opening on to the shrubbery."

So much for the garden of Pliny the Younger, and, having written this, I would like to say that I set out intending to trace the history and culture of the cucumber through many early garden books, but I must leave that for some other time.

H. B. KIRK.

The President of the Institute, Mr. Hope B. Gibbons, advised, at the September, 1944, monthly meeting of the Executive Council that he had received the following letter, dated 11th September, from Professor H. B. Kirk:—

"I very much regret that the state of my health makes it impossible for me to be of further service to the Board, and I therefore ask you to accept my resignation of Chairman of the Examining Committee."

It was resolved, on the President's motion, "to accept the resignation with very sincere regret to be conveyed with the appreciation and proper recording of his valuable services."

After reference of the resignation to the Institute's Examining Board, the following letter was sent:—

Box 1237, WELLINGTON,
21st October, 1944.

Professor H. B. Kirk,
Victoria University College,
Wellington, W.I.
Dear Sir,

I have to advise you that your letter of the 11th September to the President conveying your resignation of the Chairmanship of the Institute's Examining Board, was submitted, in the first instance, to the Executive Council's Monthly Meeting on the 27th September.

It was then resolved, on the President's motion, after submission to the Examining Board, to accept your resignation with very sincere regret to be conveyed with deep appreciation and proper recording for your valuable services.

At a meeting of the Examining Board on the 11th October, the Acting Chairman, Mr. W. K. Dallas, stated that you had been a tower of strength over a long period of years, also that your resignation should be accepted with regret and an expression of the deepest appreciation of your services and helpful advice given in our mutual trust in the conduct of examinations.

Bearing in mind that the "New Zealand Institute of Horticulture Act, 1927," came into force on the 21st October, 1927, the original minute book records that you were Chairman of the Institute's Educational Committee at its first meeting on the 22nd February, 1928. This Committee dealt first with numerous applications for the Diploma (without examination), Classes at Technical Colleges, Qualifying Gardens, Viva Voce Examinations and Examiners for written papers, etc.

The Educational Committee and the Examining Board co-operated for several meetings and the first meeting of the Board itself was held on the 12th November, 1928, under your Chairmanship.

On the 10th December, 1928, after the name of Ernest John Hipwell, Auckland, appears the following:—"(**Note: This is the first Diploma granted after examination.**)"

Eleven Diplomas by examination were granted in 1928 and three Senior (now Intermediate) Certificates were granted that year which saw the institution of students' diaries and their submission. The first three Junior Certificatees were granted in 1930 and five in 1931.

From then on the Horticultural Examinations Scheme fully covered the three examinations and could be said to be fully established with proper local arrangements for supervision of written examinations and conduct of oral tests and practical tests, etc.

In August, 1930, the submission of a thesis for the Diploma Examination was decided upon. It is interesting to note the wording of the Minute regarding this is substantially the same as in our present Syllabus.

In 1933, the draft of an up to date syllabus was prepared by Mr. F. S. Pope and this was approved by the 1934 Annual Conference. The Syllabus came into force on the 1st June, 1935, and has functioned admirably ever since, practically without amendment.

The year 1935 also saw the institution of the Cockayne Gold Medal awarded yearly for the best student in the Diploma Examination. Later on, funds were collected from Institute members for the J. A. Campbell Memorial Award for the best Intermediate student.

Enough has been set down to show how deeply the Institute and its Examining Board are indebted to you for giving so much valuable time and ripe experience of examinations and procedure to the efficient conduct of the Board's affairs.

You will be greatly missed by your Institute and Examining Board comrades who will ever remember your outstanding ability, personal charm, cordiality, courtesy and humour.

Yours sincerely,

G. S. NICOLL,

Dominion Secretary and
Secretary of the Examining Board.

FLOWERS FOR LONDON.

The following is an interesting Press Association message sent from New Plymouth on the 12th November and published in the "Dominion," Wellington, on the following morning. It might be mentioned that Mr. J. C. McDowall is President of the Institute's Taranaki District Council:—

"The question whether it is possible to transport fresh flowers from New Zealand and deliver them in London will be answered in the near future by the results of an experiment begun at New Plymouth on Saturday. The experiment was undertaken through the captain of the Lancaster bomber, Wing Commander McKinley, and a New Plymouth resident, Mr. J. C. McDowall.

As the result of their discovery of a common interest in flowers, it was a short step for the conversation to turn upon the possibility of delivering freshly-cut flowers from New Plymouth in London. Wing Commander McKinley offered to undertake the experiment and just as the Lancaster was about to leave New Plymouth airport on Saturday, Mr. McDowall arrived with a package containing two sprays of orchids grown at New Plymouth. The blooms were placed in the bomber and shortly afterwards the machine took off on the first stage of the flight that will end in Britain.

The choice of orchids for the sample shipment arose from the fact that Wing Commander McKinley was surprised to hear that they were grown at New Plymouth. Two sprays were taken from the garden of Mr. E. Douch. The stems in each spray were inserted in a potato to assist the flowers to remain fresh, and the whole was wrapped in waxed paper before being placed in a cardboard box.

The orchids have been addressed to the New Zealand High Commissioner in London. One collection is to be handed to Mrs.

Winston Churchill, wife of the Prime Minister, and the second is reserved for another distinguished person."

A later message stated that the other collection if in fresh condition, was intended for Her Majesty the Queen.

JOHNSTON'S HILL DOMAIN.

FOREST AND BIRD SANCTUARY.

Under the above heading the following appeared in the "Dominion" newspaper, Wellington, on the 13th November:

Gorse growth has been cleared, tracks have been opened up, and kowhais planted by the Parks and Reserves Department of the Wellington City Council on Johnston's Hill Domain, which was acquired at a cost of £2500 in 1941. The City Council provided £1250 of this, the Government £500, and the public subscribed £750. It was considered a very good investment, from all points of view. Sixty-six acres in extent, it is the largest area of native forest, apart from Wilton's Bush, within seven miles of Wellington, and is not more than three miles from the General Post Office.

There is a track right to the trig station at the top, 200 feet higher than the Tinakori Hills, and one of the highest points around Wellington. It commands an uninterrupted view of the eastern harbour coastline from Petone to Pencarrow. To the south-west, the Kaikouras and Marlborough Sounds can be seen on a clear day. Halfway up the domain is Fletcher's Look-out, named after Mr. H. S. B. Fletcher, President of the Wellington Beautifying Society, which took a prominent part in raising funds to help purchase the area.

Giant matai, rimu and totara were cut in this forest to provide timber for some of Wellington's earliest houses. Towering 80 feet above the ground, the rewa, or New Zealand honeysuckle is now the tallest growth on the tree-clad hillside. There is a fine stand of kohekohe, known as the Ned Zealand mahogany, and an unusual feature is a double-headed punga of perfect symmetry. The Domain is at the north-west side of Karori, five minutes from the Hatton Street stop. It is serving a valuable purpose as a bird sanctuary.

INSTITUTE NOTES.

CHAIRMAN OF EXAMINING BOARD.—At the November Monthly of the Executive Council, it was noted with gratification that Mr. G. V. Wild, Chief Inspector of Technical Schools, Education Department, Wellington, had accepted the Chairmanship of the Institute's Examining Board.

HONORARY EDITORSHIP.—The resignation of Dr. H. H. Allan, Director of the Botany Division, Department of Scientific and Industrial Research, Wellington, was received at the October Monthly Meeting of the Executive Council when it was accepted with regret and deep appreciation of the efficient manner in which his editorial duties had been carried out.

Dr. Allan's professional and practical knowledge, expert handling of copy and proofs, influencing of valuable articles for

publication and especially those relating to our native flora, have undoubtedly enhanced the value of the Journal during his Editorship. It is pleasing to record that Dr. Allan will continue to act as Honorary Botanist to the Institute.

SECRETARYSHIP.—The resignation of Mr. G. S. Nicoll as Dominion Secretary was accepted at the October Monthly Meeting of the Executive Council.

It was reported that Mr. L. V. Phillips, Secretary of the New Zealand Horticultural Trades' Association and the Dominion Council of Commercial Gardeners Limited, had agreed to take over the office from a date to be arranged and his appointment was approved.

SYLLABUS.—It was reported at the November Meeting of the Executive Council, that a special meeting of the Examining Board had set up a committee for full revision of the Examination syllabus and inclusion of a syllabus for each examination covering particulars of the oral test and of the practical test for submission to the annual meeting, together with a syllabus in respect of a Gardener's Certificate.

ANNUAL EXAMINATION was held on Thursday and Friday, 9th and 10th November, 1944—written in the morning and oral tests and practical tests on an examination afternoon, and evening if necessary. Examinations were held at Auckland, Palmerston North, Wellington, Christchurch and Dunedin. Twenty candidates sat as follows:—

Junior—3 full, 9 partial (including 5 eligible for written only)	12
Intermediate—full	4
Diploma—2 full, 1 partial, 1 special certificate	4

CONDOLENCE.—At the December Monthly Meeting of the Executive Council a motion of condolence was carried for conveyance to Mrs. Knox Gilmer on the loss of her sister, Mrs. Phoebe Dyer, Wellington.

REPORT OF THE EXECUTIVE COUNCIL FOR THE YEAR ENDED 30th SEPTEMBER, 1944.

CONGRATULATIONS have been extended to Mr. J. E. Jollie, N.D.H. (N.Z.) on his appointment as Lecturer in Horticulture at Massey Agricultural College, Palmerston North.

PERSONAL.—Mr. Wm. C. Hyde, formerly Horticulturist, Division of Horticulture, has continued on the Executive Council, where his keen interest and valuable assistance have been highly appreciated.

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

Mr. J. G. C. MacKenzie returned from service overseas and resumed his position as Parks Superintendent, Hastings.

EDUCATION is dealt with fully in the Examining Board's Report,

but the Executive Committee has once more to extend its thanks to the Board's Chairman, members, conveners and examiners both of written tests, oral tests and practical tests for their efficient and valued voluntary services.

JOURNAL. It is pleasing to record that as the result of an appeal in the July, 1943, Journal, several Journal articles have been received and it is hoped that such contributions will continue to come to hand.

REHABILITATION. The position regarding Rehabilitation is fully covered by a report thereon which appeared in the July, 1944, Journal—Vol. 14, No. 1.

DIG FOR VICTORY EXHIBITION. The Executive Council decided, at its February, 1944, Meeting, that appreciation should be expressed and congratulations on the success of the "Dig for Victory" Exhibition, should be 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 of the Institute, Mr. G. S. Nicoll, for what he had done as Chairman of the Exhibition Committee.

LODER CUP COMPETITION, 1943:—The Loder Cup Competition for the year ended 30th November, 1943, was won by Mr. James Speden of Gore, Southland, who was nominated by the University of Otago, Dunedin for his zeal in the cultivation of native plants in his extensive native garden, botanical excursions into the lesser known mountain regions of western Southland and Otago for the collection and photography of native plants including new species, etc.

ANNUAL MEETING, 1944:—The Twenty-first Annual Meeting of the Institute was held in the Board Room, Wellington Commercial Travellers' Building, Wellington, on Thursday, 27th January, 1944. A Summary of the Proceedings was published in the April, 1944, Journal—Vol. 13, No. 3.

DISTRICT COUNCILS:—Canterbury has continued its excellent work in educational activities including its Syllabus in Horticulture at the Christchurch Technical College. Its capable Chairman over a long term of years, Mr. M. J. Barnett, has been succeeded by Mr. A. H. Shrubshall, who has given the Institute many years of outstanding service in educational and other matters.

Auckland.—Activities at Auckland have covered Planting etc. at Aerodromes, advice to Whakatane Beautifying Society regarding tree-planting in streets etc., "Dig for Victory" Campaign, Rehabilitation and assistance in collection of subscriptions.

Taranaki has kept in touch with advice of local horticultural matters.

Otago and Southland have retained contact with local members.

DIG FOR VICTORY CAMPAIGN. A full statement of the position regarding the Dig for Victory Campaign, 1944-45, appeared in our last issue viz. October, 1944—Vol. 14, No. 2.

CONDOLENCE:—The Institute has expressed its sympathy to the relations of W. T. Benefield, a Past President of the New Zealand Horticultural Trades Association, who was ninety-three at the time of his death, and also to the widow of Mr. A. W. Nisbet, Lower Hutt, representative on the Institute's Executive Council of the Dahlia Society of New Zealand.

FINANCE. Subscriptions, mainly collected by post, show a satisfactory increase.

We have again to thank the Government for the renewal of its grant which is greatly appreciated.

REPORT OF THE EXAMINING BOARD FOR THE YEAR ENDED 30th SEPTEMBER, 1944.

PERSONAL:—It is pleasing to report that Mr. Wm. C. Hyde, formerly Horticulturist to the Horticulture Division, has continued on the Examining Board where his technical and practical knowledge continue to be of the greatest assistance.

Mr. J. G. C. MacKenzie, N.D.H. (N.Z.) Superintendent of Parks and Reserves, Hastings, and an Examiner for the Oral Tests and Practical Tests in Hawkes Bay returned from service overseas recently and resumed his position as above.

Mr. F. J. E. Jollie, N.D.H. (N.Z.), and Cockayne Gold Medallist, 1937, upon his return from service overseas, took up his new position as Lecturer in Horticulture at Massey Agricultural College, Palmerston North. His original horticultural training was with Messrs. Duncan and Davies Limited, Nurservmen, New Plymouth but, before proceeding overseas, he had been for some time in charge of the propagating department of the Christchurch Botanic Gardens.

Mr. D. C. MacKenzie, N.D.H. (N.Z.), Wellington, acted as locum tenens pending Mr. Jollie's return.

Messrs. M. R. Boothby, N.D.H. (N.Z.), Superintendent of Parks, Dannevirke, G. D. Hyde and J. A. Mashlan, both of Lower Hutt City Reserves, have also returned from overseas. Mr. Boothby is engaged in National Service work.

POST PRIMARY SCHOOL CURRICULUM. Dr. W. R. B. Oliver submitted a copy of this to the Executive Council's February Meeting and, after circulation to members, by courtesy of Dr. Oliver, 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. The Examining Board, in view of early publication of the Curriculum, appointed Mr. Wm. C. Hyde (Convener) and Dr. Oliver a committee to finalize this matter urgently after submission to the Acting Chairman, Mr. W. K. Dallas, and this has had the necessary attention.

THESIS. The Board agreed to publication of the Basis for Marking a Thesis and this appeared in the October, 1944, Journal.

AGRICULTURAL COLLEGES. Massey and Lincoln Agricultural Colleges took action during the year towards the institution of Horticultural Courses.

Massey is working under the Institute's Syllabus of examinations and its grounds have been "approved" whilst the names of several students of the Course have been recorded by the Institute.

Lincoln submitted its Syllabus to the Examining Board and certain amendments were suggested but the commencement of the Course was deferred pending the appointment of a Lecturer.

J. A. CAMPBELL AWARD:—The J. A. Campbell Memorial Award to the most successful student in the 1943 Examination was made to Mr. C. B. W. Oldridge, of New Plymouth.

New Plymouth has, therefore, had this Award twice in succession.

THANKS:—The Board has again to record its thanks to all and examiners who conducted the separate oral tests and the separate practical tests, also examiners who set the papers for the written examinations and marked the scripts, and to all others who assisted in any way with the examinations.

EXAMINATIONS:—The number of candidates for the November, 1944, Examinations showed an increase from 10 to 18. Junior candidates increased from 5 to 11 and Intermediate candidates from 2 to 4, with the number of Diploma candidates practically the same as last year. The following is a summary of the results:—

Examination.	Complete Pass.	Partial Pass.	Failure.
Junior	5	5	1
Intermediate	3	1	—
Diploma	1	1	1
Special Certificate	1	—	—

DIPLOMA IN HORTICULTURE.

Long, Pamela Roylance

Further Special Subject.

Petrie, George Alexander Ronald.

INTERMEDIATE CERTIFICATE IN HORTICULTURE.

Crawford, Mary Frances, Dunedin.

Malcolm, George Brington, Christchurch.

Oldridge, Colin Bernard Weir, New Plymouth.

JUNIOR CERTIFICATE IN HORTICULTURE.

Bradshaw, Robert Ranui, Hastings.

Henderson, Gavin George, Christchurch.

Nichol, Anne Carmichael, Dunedin.

Kitson, Dorothy Isabel, Christchurch.

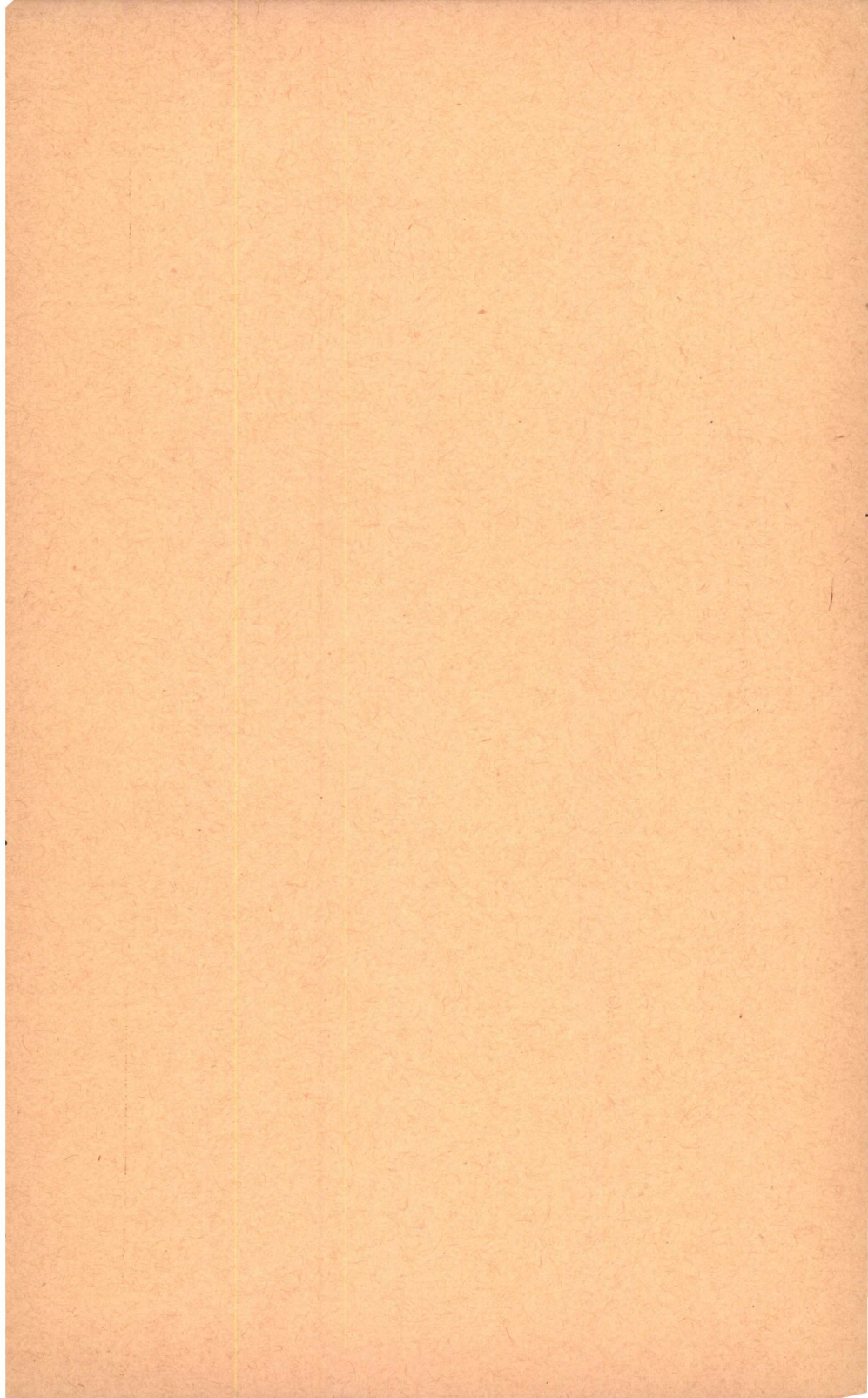
Taylor, John Osborne, Christchurch.

TOTALS ISSUED TO DATE.

Diploma: Without Examinations	170
By Examination	74
Further Special Certificate	2
Certificates: Intermediate	46
Junior	64
Fruit Culture	1
Florists	54
Seedsmen	18

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 30th SEPTEMBER, 1944.

	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
To Salaries	151	10	0				By: Subscriptions:						
„ Publications	36	2	2				Affiliated Societies	55	13	0			
„ Depreciation	2	0	0				Individual	135	11	6			
„ Capitation	8	18	1								191	4	6
„ Stock	7	7	0				Examination Fees				27	6	0
„ Loss on Redemption Govt.							State Subsidy				100	0	0
„ Office Expenses:							Interest Govt. Stock	12	5	4			
Rent and Light 34	6	0					Interest P.O.S.B.	5	14	9			
Printing & Station- ery	8	10	8								18	0	1
Postages and Tele- grams	16	19	9				Advertising in Journal				9	5	0
Examination Ex- penses	2	3	8										
Sundries 10	1	0											
				72	1	1							
„ Excess of Income over Expenditure						277	18	4					
						67	17	3					
						£345	15	7			£345	15	7





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