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The Eastcote and District Horticultural & Allotment Association

BULLETIN

Series 3.

No. 2.

December, 1942.

Price 1d.

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THE EASTCOTE AND DISTRICT HORTICULTURAL AND ALLOTMENT ASSOCIATION.

Founded 1940.

Registered as an Approved Society under the Land Fertility Scheme REGD. No. 1832.

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Vice-Presidents:

HOWARD H. CRANE, Esq.

A. T. Hurford, Esq.

Mrs. E. Cross.

H. H. KERSWELL, Esq.

G. F. MANSBRIDGE, Esq., O.B.E.

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(Pinner 633).

(Pinner 1430)

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Messis. A. G. Arrall, J. Alleway, L. Garner, A. Herridge, J. G. KINGE, H. G. MERISON and F. SUTTON.

EDITORIAL.

Two years ago to-day, we inflicted our first Bulletin on our fellowmembers. That was a memorable occasion, when, after much thought and cajoling upon the part of our Chairman, we managed a single-page issue entitled, 'Allotment Notes.' Those Allotment Notes are still going strong, but are now surrounded by a host of writings and other information. You will note, however, that the scope of those notes is extended so as to cover items of interest to our garden members, and so, from now on they will change their name to 'Allotment and Garden Notes.' Perhaps, therefore, in its own way, the present occasion may prove a memorable one, as it has been the dearest wish of the officers of the Association to offer their fellow-members a printed Bulletin packed from the first to the last page with helpful information.

In every walk of life we learn that there are many to whom we owe much for their assistance in brightening our lives and making the world a good place to live upon. This Association has been blessed with many to whom this compliment can be paid. It is they who encouraged and built the foundations of the Association and they are still with us to-day, expanding with untiring efforts the affairs and progress of a body of people striving to win the war on the home-front.

This organisation is of such proportions at the present time that it holds great possibilities for the future. We have made many good and trusty friends in the past and continue to make them now and to all these friends and members we extend the wish that for many years they will continue to derive benefit and pleasure from an organisation determined to give of its best. Seeds, fertilisers and other garden sundries at a low price assist materially in developing our gardens and allotments, but do not let ourselves be prevented by these privileges from realising the true aim of the Association, which is to stimulate and encourage the development of garden craft and to produce a real love of the subject as one being essential to the happiness of mankind.

Pruning Demonstration.

Mr. H. H. Crane has kindly offered to demonstrate the pruning of Apple Trees in his garden at Eastcote. A party is being made up and would all those desirous of attending please forward their names to the Secretary within one week of the receipt of this Bulletin.

ANNUAL GENERAL MEETING.

The Annual General Meeting was held on November 27th and was presided over by Mr. H. H. Kerswell. There was an attendance of approximately 140 members.

The Report of the Executive Committee on the year's work, which is printed in this Bulletin, was adopted by the Meeting. The Balance Sheet, presented by the Treasurer, showed a very healthy state of affairs, there being a balance for carrying forward to next year of £57 6s. 11d. One point might be emphasised in passing concerning this figure, and that is that it represents the value of goods and cash in hand and that there are no unpaid bills outstanding. This, the Committee consider a very creditable effort after only $2\frac{1}{2}$ years.

Another Report was presented by the Committee recommend ng the election of the Executive Committee on a different basis from that of last year.

Previously this has been based on representation by Allotment Sites, but, in view of the large number of members who do not cultivate allotments but only their gardens, it was considered that another basis should be adopted. It was therefore recommended that one member to represent 100 members would be a fairer representation and this was adopted by the Meeting for the formation of the Executive Committee for the ensuing year. As the membership is now well over the 700, this required the nomination of seven members to form the Committee. Nominations were received on behalf of the following members and they were duly elected:—Messrs. Arrall, Alleway, Garner, Herridge, Kinge, Merison and Sutton.

A novel suggestion was put forward by one member—that, as the membership showed every likelihood of reaching the 1,000 mark during the coming year, the names of members willing to serve on the Committee as it became necessary should be taken to form a reserve from which vacancies could be filled. This was agreed to by the Meeting and the following names were received:—Messrs. Munday, Goodburn, Newman and Maile.

A proposal was put to the Meeting that the Committee should be authorised to keep in membership, without the payment of any further subscription, those members who had joined H.M. Forces, until their return to civil occupation. This was agreed to, and the Chairman agreed to assist the wives of those members in the hard work of digging, etc., on their plots. Anyone, therefore, desiring assistance should notify the Secretary.

Mr. P. J. Beere, F.I.P.A., the Parks Superintendent of the Council, was unanimously elected as an Honorary Member of the Association.

Questions were raised on various points, i.e., fencing on the Control Tip, about which some humorous remarks were made by one member which helped to enliven the meeting. Other points were—the provision of a Notice Board in a prominent position in the district, purchase of onion plants, literature, etc.

Mr. Jack Hardy, the Association's Technical Adviser, was asked to fill the post of Editor of the Bulletin, which he agreed to do.

After the formal part of the Meeting had been concluded, a short talk was given by Mr. Howard H. Crane. The time, however, at his disposal was all too short for him to deal adequately with his subject—the cultivation of apples.

JOTTINGS FROM THE MINISTRY OF AGRICULTURE.

Potatoes or Winter Greens?

The Ministry of Agriculture in a recent statement says "It is the besetting sin of backyarders and allotment holders to grow too many potatoes . . . If he (the householder) has got as much as 10 rods of land, he should grow no more potatoes than the Ministry of Agriculture's cropping plan recommends; if he has less, he had far better devote most of his land to winter greens and roots." It is because of the probable difficulty of providing for the carriage of winter greens—perishable things—that the Ministry of Agriculture, strongly supported by the Ministry of Food, tells producers and allotment holders to grow all the greens they can, as advocated in the official cropping plan. It is because transport delays will not affect potatoes so much that the "small" man is advised not to overdo potatoes, but to stick to what the plan recommends.

What is more, the Farmers cannot be expected to meet all the public's requirements of green vegetables, and the Ministry of Food, like the Ministry of Agriculture, is anxious to see the small man do his best to make his household self-sufficient in this respect, for green vegetables contain the precious vitamin that prevents scurvy, and there is concern in official quarters because of a likely shortage of other sources of that particular vitamin.

So the plan of campaign for 1943 is GROW FOR WINTER, GROW WINTER GREENS, then roots and lastly potatoes—planting no more than the official plan suggests.

THE CHAIRMAN'S REPORT FOR THE YEAR ENDED 30th SEPTEMBER, 1942.

In presenting the following Report for the year ending 30th September, 1942, the Executive Committee is gratified in being able to show such substantial progress during the past 12 months.

Vice-Presidents. The Committee is glad to be able to report that the following gentlemen have kindly consented to become Vice-Presidents of the Association:—Messrs. Howard H. Crane, F.L.S., H. H. Kerswell, F.C.S., and G. F. Mansbridge, O.B.E.

Membership. The membership, which at the end of September, 1941, was 166, has now risen to the total of 643, and the Association thus becomes the largest in the district. Notwithstanding this large increase, the Executive Committee are convinced that there are still a large number of the residents of the district who would become Members if they were approached.

Assistant Secretary. The Association has, during the last year, lost two members who held this post, one owing to war work and the other to comply with the requirements of H.M. Forces.

The Woodman Challenge Cup. The Committee records with grateful thanks the gift of a Silver Challenge Cup presented by the President for competition at the Council's Food Production Show. It was decided that this Cup should be offered for the highest number of points gained by a member of the Association in all the classes in the Show. This was won by Mr. H. Groves of Ruislip.

The Eastcote Challenge Cup. This Cup, presented by the Association was awarded for Class 1 in the Schedule which was for a co-operative exhibit of 12 kinds of vegetables staged on a space 10' x 6' for quality and effect and was open to Horticultural Societies, Women's Institutes and groups of members. We are pleased to announce that this Association was the winner.

15/- Savings Certificate. This was presented by a Member of the Association for the most points in the Youth Section and was won by Master Alex. Martin, of Ruislip.

Financial Statement. As can be seen from the Hon. Treasurer's Balance Sheet, the year closed with a balance of £57 6s. 11d. in hand for carrying forward to the next year.

Committee Meetings. During the period under review, ten meetings of the Executive Committee have been held with an average attendance of nine.

Your Representatives also have attended five meetings of the Co-ordination Committee of the Allotment and Horticultural Societies,

11 meetings of the Urban Horticultural Committee, ten meetings of the War Time Allotments Committee and two meetings of the Food Production Committee, the last three being Committees of the Ruislip-Northwood Council.

Shop Window Display. We were able, through the kindness of our Vice-President, Mr. Kerswell, to stage a portion of our Show Exhibit in one of his shop windows; this also included some of Mr. Howard Crane's apples which he kindly loaned. By this display and the success obtained at the Show we were able to enrol 115 members during the week after the Show. Further displays are being considered on various topics, i.e., diseases, etc.

Bulletin. By a co-operative effort, the Bulletin issued by the Association and included in the Member's subscription has been greatly appreciated and has risen in popularity. Eight numbers were issued during the year and the numbers printed were as follows:—

No. 1.	250 copies	No. 5.	450 copies.
	300 ,,	No. 6.	500 ,,
	300 ,,	No. 7.	520 ,,
	400 ,,	No. 8.	620 ,,

One thousand copies were printed of the last issue for the Show. By the generosity of one of our Vice-Presidents, the Bulletin appears in printed form and it is felt that this will add to its value. In each number it has been possible to publish the latest news of the Association's activities; Mr. Hardy's notes continue to be of great value and for his expert advice we are much indebted.

Special General Meeting. During the early part of the year, when the work of the Association was becoming better-known, frequent applications were received from residents outside Eastcote asking to be allowed to become members. Your Committee therefore considered that the time had arrived when the scope of the Association should be enlarged, both in the area from which membership could be drawn and in the aims of the Association. A Special General Meeting was therefore called for April 12th, 1942, in which an enlarged constitution was placed before it, together with suggestions for alterations to the rules to cover this enlargement. These proposals were endorsed by the Meeting and the amendments to the rules adopted. New membership cards with the amended rules will be issued in the course of the next few weeks.

Trading. One of the most pleasing features of the past year's work has been the large amount of business carried out for the members,

who have thereby been enabled to save a very considerable sum of money on their purchases. The Committee realises that the arrangements were not always very successful, but the amount of trading done was greatly in excess of that which it was anticipated would be required and we were overwhelmed at times: we gratefully acknowledge the restraint of the members who may have felt that there were good grounds for grumbling.

In the course of the year the following purchases were made for the members :—

In addition to the above, seeds, onion plants and fruit trees to the value of over £48 were purchased

Transport. Owing to transport difficulties, all seeds and sundries had to be delivered to central points and, with this in view, the Committee endeavoured to obtain empty sheds or garages for the purpose of storage. They were not wholly successful, and any offers in this direction will be very much appreciated.

Control Tip Allotment Site. The Council informed the Committee that if a sum of £36 could be collected from the Allotment Holders, it would be possible to provide chain link fencing sufficient to form a fence approximately 450 yards long at the bottom and part of both sides of this site, to prevent trespass on to the allotments. A sum of approximately £30 (6/- per head) was collected with the help of Committee members from the majority of the Holders, and the balance the Council agreed to find from the subsequent renters of the vacant plots.

The Committee later was informed that, owing to restriction of suppl es under Government instructions, this type of fencing could not be supplied, and it has now been agreed to fix a chestnut pale fence which it is hoped will be put in hand very shortly.

The Council, upon our representations, carried out certain drainage works on this site and has further agreed to execute similar work, together with a 10 feet wide road through the Newnham Avenue Allotment Site, the work to be done in the course of the next few weeks.

Films. A very successful effort was made in a "Dig for Victory" Drive by means of films lent by the Ministry of Information and a

'Brains Trust' meeting held in co-operation with other Societies in adjacent districts. All meetings were very well attended, which clearly indicates the enthusiasm of the members

In conclusion, the Executive Committe wishes to place on record its appreciation of the work carried out by the Road Stewards during the year. And, as Chairman of the Executive Committee, I would once again like to acknowledge the valuable assistance that the members of the Executive Committee have afforded me and record my thanks for the efficient manner in which they have discharged their respective duties.

V. E. Croxson, Chairman.

MEMBERS' ALLOTMENT AND GARDEN QUERIES.

- Can root-crops be grown on land previously cropped with greenstuff which was badly affected with Club-root? (Dr. W. W. J.) Most certainly roots can follow greens. This is the correct rotation. Club-root does; not infect root crops such as carrots, parsnips, etc. (Editor)
- Can Club-root affect Runner Beans? I have found swellings of various sizes on the roots of my Runner Beans and wondered if they were attributable to Club-root. (W.L.)

No, Club-root does not affect Runner Beans. The small swellings observed on the roots of these plants are known as 'nodules' and are full of bacteria. Beans, Peas, Lupins and other plants of the Pea Family manufacture nitrogen through the agency of these bacteria. That is why it is not necessary to supply this type of plant with large quantities of manure and fertiliser containing Nitrogen. (Editor)

3. Does Basic Slag, when applied to potato ground, have the effect of blackening the potato after cooking? (G.S.F.)

Basic Slag is a phosphatic fertiliser and it is sometimes thought that an overdose of phosphates is the cause of this trouble. I feel, however, that it is the result of a heavy soil, especially in a wet season. Certain varieties are more susceptible than others in this respect, notably Up-to-date. (Editor)

January 22nd, 1943. Talk on "The Cultivation of Apples," by Mr. Crane. This talk will be in much greater detail than was possible at the Annual General Meeting.

THE SECRETARY'S PAGE.

Purchase of Onion Plants. Very few members have apparently noted the request made last month to forward their orders for these. Last year we disposed of 15,000 plants, but nothing like this number has been asked for this year. Send in your orders NOW before we have to close. We cannot delay placing the order with the Grower indefinitely. The plants this year will be in boxes and will be grown by a reputable firm in Middlesex especially for this Association.

Lime. Members, no doubt, have been wondering what has happened! The non-delivery of this has been giving our Chairman a lot of worry during the past month. He has spent a lot of his time in continually telephoning the merchants urging delivery, but without much success. The delay appears to be caused by several reasons. One is the Government decentralising scheme which has upset deliveries, another is the shortage of labour and petrol or transport. Will members therefore refrain from worrying either the Chairman or myself, as they can be assured that we are doing the best we can in difficult circumstances. The delay is none of ours and when delivery is promised or has been accomplished, members will be immediately notified.

Help to Wives of Men in the Forces. Our Vice-President, Mr. Kerswell, as mentioned in the Report of the Annual General meeting, promised to assist in the hard work of cultivating plots, ie., digging, etc. I may, perhaps, say that he has under consideration a scheme, which, if it can be put into practice, will be of much assistance. Further details will be made known as soon as everything is settled. In the meantime, will the wives of those members who need any help please notify me, giving the situation of their plot.

Subscriptions. These are now due, and as money is required for financing the orders which we are about to place, it will be appreciated if members will let their Road Steward have the small amount due or forward same to either the Treasurer or myself.

Lectures. Mr. Howard H. Crane has very kindly agreed to give us a further Lecture on the Cultivation of Apples in January on a date to be arranged. Other lectures which it is hoped to arrange are (1) a talk on Bee-keeping by Dr. Fraser. It will be remembered, perhaps, that he was fully occupied in lecturing on and demonstrating bees at the Council's Food Production Show in September. (2) A talk by Mr. Beere; (3) a further lecture by Mr. Hardy. The dates for these meetings will be announced as soon as arrangements have been made.

Errata. Two mistakes were unfortunately not noticed in last month's Bulletin. These are as follows:—

Page 3. Article on "Better Planning."—For Autumn 1,414 $\frac{3}{4}$ lbs. read 14 $\frac{3}{4}$ lbs.

Page 16, line 9.—For 2' 6" read 2" to 6".

Fertilisers. The following fertilisers are now available at the Hut Oxford Drive, Whitby Road.

Dried Blood 4d. per lb. 7 lbs., 2/4d.

Superphosphate of Lime 7 lbs., 8d. 14 lbs., 1/4d.

Muriate of Potash . . 3½ lbs., 9d. 7 lbs. 1/6d.

Bone Flour . . 7 lbs., 1/3d.

Basic Slag . 7 lbs., 6d. ½ cwt., 3/6d. 1 cwt., 7/-

Until further notice the Hut will be open at the following times:

Saturday afternoons .. from 3 p.m. to 4 p.m.

Sunday mornings .. from 11 a.m. to 12 noon.

Leeks. If there is sufficient demand for leek plants, it is proposed to place an order for these. Any member desiring plants should therefore notify their Road Steward or myself as early as possible. Prices will be notified in due course.

Nitrate of Soda and Sulphate of Ammonia will be available in the Spring. It is not proposed to stock these two fertilisers now owing to their liability of absorbing moisture, but when it is necessary to use them purchases in bulk will be made for sale to the members.

J. S. Ranger, Secretary.

MEMBERS IN THE FORCES.

As mentioned in the report of the Annual General Meeting, the Committee was given authority to keep in Membership those members of the Association who have joined the Forces, without the payment of any further subscriptions until their return to civil life again. It is proposed to publish from time to time, as their names become known, a list of those who have so joined up. The first list is as below:

MR. A. S. DAWSON—R.A.F.
MR. W. EVANS—Army.
MR. C. FARRIER—Army.
MR. C. FARRIER—Army.

February 12th, 1943. Talk on "Elementary Beekeeping" by Dr. M. Fraser, probably illustrated by Lantern slides.

ALLOTMENT AND GARDEN NOTES.

By Jack Hardy, N.D.HORT.

Dear Members,

An allotment holder who has signed an agreement with his local Council technically agrees not to plant permanent crops upon his allotment. By permanent crops I mean such things as Rhubarb, Perennial Flowers, Currant Bushes and other Fruit Trees. This is designed to prevent any claim for compensation upon the Council when the time arrives to terminate the tenure of the allotment, and is perfectly in order. The allottee must perforce accept the allotment upon the Council's terms. Having once signed the agreement to accept the Council's conditions, he cannot claim any compensation for loss of crops if the requisite period of notice is given by the Council. I do not think, therefore, that an allotment holder is precluded from planting such items as gooseberries, currants, raspberries, strawberries and rhubarb, but they must be planted entirely at the owner's risk, and he cannot claim any compensation from the Council at the termination of his tenure provided that the correct period of notice is given. In other words, let us see more interest in the growing of fruit. This is not confined only to allotments but applies equally to the garden owner.

There is no necessity for me to utilise space here in which to describe the treatment and cultivation of what are called 'top-fruit,' as these subjects are readily located in any good garden book. 'Topfruit,' by the way, includes apples, pears, plums and so on. What I want to offer you is some of the more useful information not generally found in books for amateurs. Take, for instance, the question of the suitability of certain varieties for pollination purposes. Most people understand that there are self-fertile and sterile varieties of certain fruit, and that some varieties require others to be grown alongside them to ensure cross-pollination and successful cropping. This is a lengthy subject, and to understand it more fully would require greater explanation than I can offer in these pages. Anyone sufficiently enthusiastic to pursue the matter further could do no better than read my own Textbook of Gardening, where the subject is dealt with at great length. Sufficient here for me to offer you the following table of varieties which will ensure successful pollination :-

Apples.

Emneth Early will pollinate Ellison's Orange, Lane's Prince Albert, Laxton's Superb, Cox's Orange Pippin, Allington Pippin, James Grieve, Grenadier and Charles Ross.

James Grieve will pollinate Ellison's Orange, Laxton's Superb, Cox's Orange Pippin and Charles Ross.

Allington Pippin will pollinate Ellison's Orange, Laxton's Superb and James Grieve.

Grenadier will pollinate Bramley's Seedling, Newton Wonder, Lane's Prince Albert, Lord Derby and Emneth Early.

Newton Wonder will pollinate Bramley's Seedling and Lord Derby.

Lane's Prince Albert will pollinate Bramley's Seedling, Newton
Wonder and Lord Derby.

Lord Derby will pollinate Bramley's Seedling, Newton Wonder and Allington Pippin.

Ellison's Orange will pollinate Cox's Orange Pippin, Allington Pippin, James Grieve and Charles Ross.

Laxton's Superb will pollinate Cox's Orange Pippin and Charles Ross.

Rival will pollinate James Grieve and Charles Ross.

Pears.

Self-fertile. Marie Louise d'Uccle, Fertility, Conference, Le Lectier, Beurre Bosc, Beurre Hardy and Durondeau.

Self-sterile. William's Bon Chretien, Pitmaston Duchess, Beurre d'Amanlis, Beurre Superfin, Marie Louise, Marguerite Marillat, Louise Bonne of Jersey, Catillac, Clapp's Favourite, Doyenne du Comice and Dr. Jules Guyot.

All 'soft-fruit' are self-fertile and the varieties can therefore be grown either separately or as a combination. By 'soft-fruit,' I mean red, black and white currants, gooseberries, raspberries, strawberries, loganberries, Himalayan, American and Parsley-leaved Blackberries. All these soft-fruits are well worth cultivating if you have the space for them. From time to time I will deal with them individually. If you have difficulty in obtaining a few plants, why not beg some cuttings from a friend? Soft-fruit are unlike top-fruit, inasmuch that they all grown upon their own roots and therefore do not necessitate grafting or budding. Moreover, most of them will produce fruit the second year from the 'cutting' stage. In fact, the more you know

them, the more you want to know of them. The common or garden gooseberry can offer you endless variety, colour, flavour, size and season. Such attractive names as Careless, Keepsake, Whinham's Industry, Leveller, Crown Bob and Dan's Mistake cannot help but induce you to want to know them.

Planting.

This is the time of year for planting fruit trees. It is not a job which can be dismissed as completed in a few minutes. When you consider that the tree has to spend a number of years on the same site, it necessitates the maximum amount of patience and care in preparing the site and planting the tree. It is not so much a question of digging a hole and burying the roots, as it is of acquainting one's self with the requirements of a young tree. No doubt you have often heard the tale of a dead horse being buried at the foot of a tree or in a vine-border, with the resultant bumper crop of fruit. There was a great deal of sense in this procedure, although the method was a little crude. Any animal body in a state of decomposition releases quantities of phosphates and nitrates-these two qualities are imperative to successful fruit growing. To put the equation into another form, the fruit trees require finely ground bones and some good short stable manure worked into the soil before planting. A quantity of charcoal and old mortar rubble will also encourage the progress of the trees. Damaged roots should be carefully cut back with a sharp knife and the roots buried in layers, a few at a time, fine soil placed between them and each layer firmed. For large trees and standards a stake should be driven into the centre of the hole prior to planting. Tie the tree into position by means of some thick tarred twine or some old rubber-covered wire, first wrapping the stem in two thicknesses of sacking to prevent the tie damaging the bark. Planting can continue until the end of March when soil and weather conditions permit.

Winter Work.

Weather conditions do not allow of a great deal of outdoor work on our heavy soil at this time of the year. I often think that a wet afternoon is well spent in overhauling tools, fertilisers and other garden equipment. Spades and forks need thoroughly cleansing of hardbaked mud and soil. Scrape them with an old knife and when absolutely clean give them a good rub over with an oily rag. Frequent cleaning and oiling of both the steel part and the wooden handle gives

much longer life to the implement. Look over your lines, renewing where necessary and adding new sticks to either end. Two 50 feet lines are of paramount importance. Trowels and dibbers need similar care and attention as do also rakes and hoes. Make sure that the heads of the latter are securely fixed to the handles. Any fertilisers, such as Bone Meal, Dried Blood and so on, should be inspected for condition and preferably stored in biscuit tins or at least containers with lids. See that you have a supply of wooden labels and spend a little time checking the remains of last season's seeds. These seeds can, in most cases, be sown in 1943 and will save you money and the country a great deal of time and labour.

Inspect bean poles, re-pointing them and creosoting the points. Tie them in bundles of six for easy handling and, if possible store them under cover. Pea sticks rarely last for more than one season and I usually make a little Potash by burning all mine on a bonfire. A ball of good twine will be useful to have at hand next year with two or three dozen stout canes for your tomato plants.

The Season's Greetings.

To all those members who have read these notes during the past year, and those also who have read them for the first time, may I offer my best wishes for a prosperous 1943. I hope you enjoy these notes in their new form and I sincerely trust that they manage to convey to you the assistance and information which it is my wholehearted endeavour to offer.

More later,

Jack Hardy.

- March. Talk by Mr P. J. Beere, F.I.P.A., the Parks Superintendent, the date and subject to be announced later.
- April. Talk by Mr. Jack Hardy, the date and subject to be announced later.

All the Lectures or Talks will take place at 129 Field End Road, at 8 p.m. Please make a note of these in your Diary.

THE COMPOST HEAP

by H. Gilbert.

Most of you make a compost heap every year, some of you making the compost, as it should be, and a lot more (like myself) just throwing our rubbish into a heap in some convenient spot and letting it rot, if it will.

Like most people nowadays, I have very little time to spend on my favourite hobby. How many people, though, understand and appreciate the work that the compost does, to itself and to the garden? As is generally known, the soil needs Nitrogen to be fertile, and to get that Nitrogen content, we add all kinds of fertilisers, some natural,

some synthetic, that is to say, a laboratory product.

Now, the Nitrogen content of soil is determined by the presence of Nitrogen fixing bacteria, known as 'Azotobacter.' This bacteria is free-living, and fixes Nitrogen into forms suitable for plants, without any outside aid. Nitrogen-fixing bacteria are also found on the roots of leguminous plants such as Peas, Beans, etc., in the form of little lumps, called 'Nodules.' The growing of these plants, therefore, is a direct aid to soil fertility. The job of these nodules is to supply the plant, and through your compost heap, the soil, with assimilative Nitrogen. This particular bacterium starts off life as a 'coccus,' roughly spherical in shape, and with an average size of μ (pronounced mew) in diameter. A 'µ' is a thousandth of a millimetre, and is used as a handy unit of measurement when dealing with micro-organisms. This unit is also known as a 'micron.' If an object was said to measure one micron. it would be expressed as µ, or roughly 1/25,000 of an inch. In enough soil to heap up on a sixpence, there is probably a population of 2,000.000,000 or more!!

To give a better comparison of size between a micron and an inch, if one inch was represented as the distance between Ruislip and Watford, a micron would not be any larger than the first pace you took to get to Watford. But don't let that worry you. In spite of their small size, these bacteria do a lot of work, without which your pea crop would not be worth having, and I take off my hat to the

experts who measure and count them.

To sum up, when you build a compost heap the bacteria on the greenstuff used starts to break it down into a food humus that can be fed back to the soil. The addition of 'Adco,' or Sulphate of Ammonia, to your compost gives the optimum conditions for the growth of bacteria necessary to soil fertility.

When one is told that so-and-so's ground is sour, and needs lime, it means that the soil contains more acid than is good for it. The ground is not 'Neutral,' as it should be. The addition of lime

rectifies this and gives the Nitrogen-fixing bacteria a better chance of multiplying quickly, thus fertilising the soil.

As a very humble microscopist, my grateful acknowledgments are due to the Rothamstead Experimental Station, and in part'cular to Dr. Hugh Nicol, Assistant Bacteriologist, for original research

A LIST OF APPLES FOR SMALL GARDENS.

by H. H. Crane.

The following list is of neat-growing and dependable croppers. Bush, Pyramid or Cordons are most suitable on a dwarfing stock—East Malling No. 2 or No. 9.

Adam's Pearmain. An old variety of characteristic conical shape,

maturing in February or March.

American Mother. An aromatic dessert sort, conical fruits of crimson colour. For November use.

Cox's Orange. Recognised as the most highly flavoured dessert apple, which should be in every collection.

Egremont Russet. A very delightful russet of nutty flavour, maturing late October.

Ellison's Orange. Useful free-fruiting dessert sort of mottled crimson colouring. To be eaten in October.

Epicure (Laxton's). A recently introduced variety of Cox parentage. August and September.

Fearn's Pippin. An old dessert sort with flat crimson fruits, which will keep until March if carefully stored.

Fortune (Laxton's). A new variety with Cox flavour; ready end of

September.

Gascoyne's Scarlet. A useful dual-purpose sort with crimson fruits. Has done well at Eastcote; makes a somewhat larger tree than others. Hormead Pearmain. A useful cooker with pale green fruits keeping

until May Neat, close-jointed grower.

James Grieve. A very prolific dessert of high quality Regular cropper and should be grown to pollinate Cox. Ready in September. King of the Pippins. An old dessert apple of bitter-sweet flavour. Ready between October and December.

Laxton's Superb. Exceedingly prolific dessert not unlike Cox To

be eaten in January.

Lord Lambourne. A very free cropping dessert of good flavour. Season October to November.

Revd. W. Wilks. A good cooker of recent introduction. Immense

apples profusely borne. Useful from August to November.

The Queen. A handsome cooking sort lasting until December. Large fruits freely borne.

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