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THURSDAY, MAY 4, 1950

Weekly, 6d.

VIEWPOINT

THE pre-packaging of fruit and vegetables in attractive consumer packs is still something of a novelty, the value of which as a source of high-grade crop disposal—particularly during glut periods—has yet to be widely accepted. Yet, if growers do not soon wake up to the scope and possibilities of this outlet, they may find the chance has slipped through their fingers.

It is not difficult to visualize enterprising wholesalers, and even retailers, continuing to buy supplies at normal market rates—particularly if they are low—undertaking their own pre-packaging, and offering this produce at such enhanced rates as its attractive presentation commands and the extra trouble justifies.

From the grower's point of view there is surely a dual risk here. In the first place he will have no real control over the quality of pre-packaged produce, or even any guarantee that imports do not find their way to the public in this form. Secondly, he will lose the very real value of building a reputation for his own home-grown produce by the establishment of a growers' mark.

IT would be altogether wrong to presume that the manufacturers of pre-packaging material are necessarily growers' men. On the contrary, they are quite definitely on the fence, with very little idea in what direction their pre-packaging trade will develop so far as horticultural produce is concerned. Indeed, it is safe to say that more than one firm has already jumped off on the side of the distributors, visualising this section as most likely to take up and expand the pre-packaging idea. Time may well prove them mistaken, but the growing side of the industry should be forewarned by the trend. It is doubtful if the average wholesaler or retailer has the time or space to undertake pre-packaging, but there will be exceptions, and these will carry risks for the grower.

THE packaging of produce for market has always been the province of the growers' packhouse. Even in its more elaborate modern form it should still take place there, alongside the graders, the cold store, the washing machine, and the rest of the marketing apparatus. The fact that the actual presentation of produce is being carried a step further, in the process of pre-packaging, should make no difference. After all, there is nothing new or revolutionary in bundling and labelling asparagus or putting up soft fruit in punnets, and surely that is pre-packaging—robbed, perhaps, of some of its present refinements.

Collectively, and without delay, the growing side of the industry should accept pre-packaging and, having done so, form a positive policy as to the attitude it proposes to take. If growers accept the responsibility, there should be prompt liaison with the manufacturers to make this perfectly clear, before it is too late.

NEED FOR A NEW OUTLOOK?

SOME PEAR PROBLEMS

By R. W. Harriss

LOOKING through an old copy of "The Farmer's Magazine" dated February, 1856, I was rather surprised to see that among the Covent Garden prices for week ending January 26, pears were quoted at from 1s. to 3s. per doz., and 2s. to 5s. per ½-seive. Varieties mentioned were Winter Nelis and Glou Moreceau.

As a matter of interest, I looked up the market report for the corresponding week in this year, and, except for imported pears, there was but one variety mentioned, and that at per ½-bushel. The variety, of course, was Conference.

Despite its deservedly wide popularity, this pear cannot be classed as of first quality, and considering that there was something like five million bushels of pears imported into these islands during 1949, the fact that there was only one variety reaching the market in sufficient quantity to justify a price quotation, makes one wonder if the home-grower is showing sufficient enterprise.

During the past season there have been serious misgivings among pear-growers, partly because of increasing imports and also through fear of over-production.

Should Give Confidence

The very fact that such vast quantities of pears can be imported and sold at a good average price should have the effect of giving the home grower every confidence for the future, provided he is prepared to study consumer demand with the same determination as the foreigner.

During the early autumn of last year, I remember that a grower wrote to *The Fruit-Grower* complaining that he had been unable to find a market for what was described as "a good sample of Superb" pears. I have no idea of the quantity that were available, or other circumstances, but there is something seriously amiss when pears, which are among the very best in their class and season, do not find a ready sale when markets are being found for vast quantities of imported pears of generally inferior quality.

I wonder if the fault was that there was no real effort to sell until the fruit was ready?

Another grower expressed his amazement to me because his Conference had made only 6s. per bushel, while Catillac fetched 12s. The answer to this, of course, was obviously that by the time the Catillac were picked, the usual pell-mell loadings of pears to the markets were dying down, and, had they been kept until towards the end of their season, they would most likely have made nearer three times that price.

It was sometime during last October that I was approached by a firm of processors to "find" about two tons of suitable pears which, I was informed, would be sufficient to complete their quota of a mixed-fruit pack. I had the temerity to ask where they had obtained their main supply, and was told that they had been buying Dutch pears at around 7d. per lb.

Surely it would have been possible for a contract to have been made for a home-grower to have supplied satisfactory fruit at this price. There is something very wrong here, but one wonders just where the fault lies. I have put this firm in touch with some friends of mine, who, among other things, grow some 80 acres of pears—and grow them really well. This season should find these growers and processors trading together in a mutually satisfactory manner.

Too Many Planted

One grower recently expressed to me his preference for Conference above all other pears, as it was "no trouble." Many will agree with this verdict as, apart from being of reasonably good quality, it is a regular cropper and practically scab-proof; but, despite these admirable qualities, it is surely taking a very narrow view to plant this variety in numbers that are greater than all other pears combined. Yet this has happened during the past several years.

There is not much doubt that the "no trouble" angle has a good deal too much influence on the outlook of most of us, but with the foreigner obviously going to a great deal of trouble to capture our markets, there is no excuse for being satisfied with our increasingly unimaginative efforts at pear production.

To do justice to himself and the consumer, the home-grower must plan to spread the pear crop much more evenly over the year. This can be done by recognising the merits of certain other varieties, particularly first-early and late sorts.

Few will disagree that there is nothing imported to show to better advantage than a well-grown Superb, William, Beurre Bosc or Comice. This applies particularly to Italian fruit which comes in when we least want it and, to my mind, has the appearance of having been ripened in a sewer.

If it is "eye-appeal" that sells this fruit, the frills that go with the imports must be given all the credit. They certainly do much to hide the hideous black bruises which develop as soon as the fruit is exposed to fresh air.

So far as I can ascertain, the containers Italian pears are packed in are both costly

and hard to come by—and not cheap or of easy supply, as many people are inclined to think. It makes me wonder what would be the result if a determined effort were made in this country to produce suitable non-returnables for such fruit as would find a better market by their use. I wonder, too, what percentage of growers would make full use of proper packing material.

One thing is certain, pears are very much more tricky than apples to market satisfactorily, and to get the whole of the crop to the consumer in anything like good condition presents many problems. Good growing is only half the battle. The other half is perhaps more difficult, and equally important—picking at the right stage of development, good grading and adequate storage with chill-rooms so that the earlier sorts can be packed and dispatched in cool condition, which considerably increases the saleable period of the fruit.

When one knows of the vast and increasing imports of pears into this country, it does suggest, to put it mildly, that it is time that pear-growing should be taken far more seriously, with a more far-sighted policy adopted with regard to choice of varieties.

Of the less-known new pears, there are two that, to my mind, justify a place in the commercial list. One is Laxton's Early Market, which can be picked and sold by mid-August, and the other Laxton's Progress, which ripens in October.

A Class of Its Own

The former is in a class of its own so far as first early pears go, attaining a good size, and pleasing quality and appearance. One man complained to me that it would not keep. It is not meant to. While admitting that there are many other good pears to choose from, my idea of a worthwhile collection from early to late is as follows—Laxton's Early Market, Laxton's Superb, Beurre Giffard, Beurre D'Amanlis, Williams B.C., Dr. Jules, M. Marrilat, Calbasse, Emile D'Heyst, Beurre Superfin, Beurre Hardy, Conference, Doyenne du Comice, Winter Nelis, Josephine de Malines, and last, but by no means least, that splendid old stewing pear, Catilac, which will keep almost until pears come again. This pear, properly prepared, is delightful, and to my mind, far and away superior to the scented insipidness of the usual canned varieties. One snag with it is, that to do justice, it must have a long and steady stewing; perhaps this is too much trouble.

Recently I was given a leaflet, entitled "Dutch Pearade." I suggest that every British grower should see a copy. It would support my contention that the foreigner values our markets a great deal more than we do. Part of the Dutchmen's anxiety is to help overcome the lack of dollars, although judging by the number of American cars to be seen in Holland, they manage to rustle up a few.

The leaflet lists no fewer than 71 varieties of pears they propose to export to us. There are three groups of dessert sorts. Group 1 includes Hardy, Superfin, Comice and J. de Malines. Group 2 includes Clairgeau, D' Amanlis, Deil, Durondeau, Williams and Conference. Group 3 (other dessert pears) are mainly unknown to me, but includes D. Boussoch, Dr. Jules and Souvenir du Congress. Culinary pears are in two groups.

It seems quite clear, from the number of varieties that have been found, that it is intended to fine-toothcomb the Netherlands next season for every exportable pear. As a sporting nation, we must hand them full marks for making a splendid effort, and be duly thankful for the millions of dollars they intend to save us!

WILL THERE BE A DROUGHT THIS YEAR?

Not If We Have Rain Now Argue Experts, But Crops Always Need Irrigation Says Sir William Ogg

THE question whether or not to take precautions against the possibility of drought this summer, by the installation beforehand of irrigation equipment, is not helped by the lack of information for growers on the likelihood or otherwise of such a drought.

Oldest inhabitants' warnings, and the variety of weather forecasts supplied by nature have all proved wrong as often as right, but how helpful it would be to hear the confident voice of a radio announcer forecasting "A period of dry weather will commence at the end of next month, lasting approximately six weeks. The midday temperatures will be in the region of. . . ." How quickly those irrigation lines would be erected then!

At present, the Air Ministry is not willing to commit itself on long-term forecasts, but research on the subject is receiving top priority, and there is a tone of optimism in the talk of those associated with it. Electricity is playing its part, and the research is revolving round the latest wonder machines which are said to cope with fantastic mathematical problems in a few minutes. The electronic eye is also drawn into this automatic forecasting, and the time may not be far distant when forecasts for the whole season, or at least a month, will be worked out in a few hours.

Such a service, with the information disseminated at a set time over the radio would prove an absolute boon to all growers, who would then have some idea how long they can afford to wait before rigging up the spray lines, or how much longer they can leave a crop to mature before the weather would make picking a difficult operation. Advance information of this sort would also prove of inestimable value when drawing up spray programmes in summer and winter, for pruning and early planting operations, and in fact every out-door job throughout the year.

That there will be a drought this summer is something the Air Ministry will neither confirm nor deny, but weather experts do contend that given a reasonable amount of rain during the next four or five weeks, the surface water should be sufficient to outlast a dry period during the summer.

Speaking at the beginning of the month

at the centenary of the Royal Meteorological Society, however, Sir William G. Ogg, Director of Rothamsted Experimental Station, said: "From calculations of soil moisture deficits, it is probable that the crop over a considerable area of Southern England—south-east of a line from the Severn to the Humber—could use from four to six inches more water than falls as rain." This, incidentally, is based on the unpublished work of Dr. H. L. Penman at Rothamsted.

Sir William also said on the same occasion that in a dry year, like 1949, even a deep-rooted crop such as sugar beet would benefit from irrigation, and shallow-rooted crops would benefit in nearly all years. Sir William revealed that this information came from experimental work carried out on sugar beet over three years, but added that they made no claim as to whether it would pay to irrigate or not.

Safest Course

As far as irrigation is concerned, it would perhaps be safer to take heed of Sir William's remarks. However, for guidance on the many other outdoor operations that are directly affected by the weather however, the grower must wait for the day when long-term forecasts are possible.

In the meantime, he is worse off than ever, since the airmet service, which until March 15, was broadcast on 1210 metres, was discontinued, owing to the change in wavelengths. Originally intended for civil air pilots, many growers found the daily forecasts of some value, but it is to be feared that now that the information is available to the civil air pilots through other services, the airmet service may never be restored.

Capt. John Crowder recently pointed out in the House of Commons, however, that the information was of great use to both agriculturists and fishermen, when he asked for its restoration on a wavelength which can be received on ordinary radio sets, and Mr. Frank Beswick, Parliamentary Secretary to the Ministry of Aviation, agreed that it would be appreciated by many people if the service could be restarted. He added at the time, however, that it was not the responsibility of his Ministry to allocate wavelengths, and that international interests were involved.

Official Mid-April Vegetable Crop Report

GLASSHOUSE lettuce and tomatoes are reported to be of good quality, and cucumbers variable in the latest Ministry of Agriculture report of the vegetable crop position. Outside, crops appear to be moderate to poor in quality.

Rhubarb.—Forced practically finished. Open crops more forward; quality and yields improved. Insufficient demand.

Lettuce (Glasshouse).—Crops in heated houses almost cleared; cutting from frames increased and quality good.

Lettuce (Winter Open).—In Essex and Worcestershire crops being cut on increasing

scale. Other areas will commence loading during the latter part of the month. Quality has only been moderate.

Tomatoes (Glasshouse).—Main crop prospects generally good. Picking in the Lea Valley expected to begin early in May.

Cucumbers (Glasshouse).—Supplies have been on much heavier scale and in the Lea Valley peak cutting is expected early in May. Quality variable.

Watercress.—Steady supplies and quality good.

Spring Cabbage and Spring Greens.—Heavy bolting of cabbage crops is occurring in most areas; much of the crop intended for hearting is being cut for greens.

Roots.—Beetroot being loaded on much smaller scale. Parsnips have been light and of variable quality. Few carrots loaded; the remaining small areas will be cleared early in May.

SNOW DAMAGE

(For pictures and district-by-district summary see pages 774-5.)

WHEN, following a week-end of social activity, the annual business conference of the National Federation of Fruit and Potato Trades opened at the Grand Hotel, Brighton, on Monday, A. B. MARKS, of Leicester, succeeded E. A. EASTWOOD as the wholesalers' president. While it has proved uneventful, despite



Mr. A. B. Marks

revolutionary prophesies of widespread change in the wholesale and distributive spheres, Mr. Eastwood's period of office has seen steady progress and active encouragement of joint consultative committees, covering all spheres of the industry.

H. S. MELBOURNE, of Pinetree Fruit Farm, Cranborne, Dorset, who specialises in Royal Sovereign strawberries and had a worthy exhibit of ripe fruit at last week's R.H.S. show, promises another even better display at this week's "fortnightly." Despite recent severe weather he reports that all plants are doing well, while the Pinetree stock remain "as good as ever."

Sign of the increasing interest within the county in co-operative marketing can be seen in the successful visit of Cambridge growers, organised by N.F.U. horticultural secretary L. H. HERRING, to headquarters of the Littleton and Badsey Growers' organisation, in the Vale of Evesham. Certainly the visiting growers could have found nobody more alive to the values and the problems of co-operative marketing than C. A. BINYON, president, who with his staff gave full and frank answers to the many queries raised.

H. J. COOPER, technical representative of Markham Traction Ltd., Hanworth Lane, Chertsey, Surrey, has an eye on the mounting costs of labour on fruit farms. He is at present investigating the possibility of adapting his company's trailers and fertiliser spreaders to meet the specific needs of fruit farmers, and is anxious for practical discussions on the point with growers.

Recent changes on the horticultural advisory staff of the N.A.A.S. have taken R. W. RENNISON from the North Riding to West Suffolk, and S. J. HOWICK from Norfolk to North Riding. Following the retirement of J. JARRETT, horticultural officer for Shropshire, Miss S. MAUREEN JOHNSTON has moved from Wiltshire to replace him.

Members of the British Flower Industry Association apparently find tours overseas more congenial than those at home. Despite the success of the recent Channel Isles trip,

... PEOPLE

support for the proposed tour of the Lincolnshire bulb fields has proved so poor that Miss I. W. HOWARD, the Association's secretary, has this week been busy cancelling arrangements.

Fulfilling one of his first engagements since his return, gloriously tanned, from the Mediterranean island of Majorca, where he recently spent a three weeks' holiday, J. F. GOAMAN, Senior Marketing Officer of the Ministry of Agriculture, continued his work of bringing the message of good marketing practices to growers at Hampton last week. Mr. Goaman has travelled extensively about the country speaking on the subject of which he has had such vast experience, and in whatever area he speaks he invariably takes the point of view of the local grower and discusses the subject in so far as it relates to the particular area.

Following a point recently raised by one of our district correspondents, regarding the cultural problems raised by soil heating by electricity, C. A. CAMERON BROWN, agricultural electrification adviser to the British Electricity Authority, has offered to arrange for frank discussions between A. W. GRAY, his horticultural officer, and any growers experiencing local problems concerning the technique of soil warming by electricity.

J. P. ROCHFORD, president of Lea Valley Growers, has provided a handsome silver cup for competition among golfing

members. Fate of the cup for the first year of its existence will be decided at Brookmans Park Club on May 23, when the Association holds its first annual golf competition.

JOHN CASTLE, sales-development manager of Eburite Containers Ltd., horticultural packaging material manufacturers, has been appointed first chairman of the Southern Area Institute of Packaging, which includes London and the Home Counties.

Distinguished visitor to the new headquarters of the John Innes Horticultural Institution, Bayfordbury, Herts, on June 2 next will be the MARQUESS OF SALISBURY, who has graciously consented to perform the official opening ceremony.

A happy ceremony which recently pleased Pembrokeshire growers, returning home via Brecon from a Vale of Evesham tour, was the presentation of an automatic razor in a silver case to P. D. LEES, horticultural advisory officer for the county, as a mark of appreciation of his efforts in organising the tour. W. T. PROUT, of Saundersfoot, handed over the gift, and his complimentary remarks were endorsed by J. DANGERFIELD, of Rosemarket.

C. D. DEMPSTER, horticultural officer to the N.A.A.S. for Staffordshire, is busy completing arrangements for an ambitious glasshouse demonstration and exhibition to be held at Baker's Nurseries, Codsall, near Wolverhampton, on May 18. Besides a most comprehensive display of glasshouses and allied equipment, visiting growers will have the opportunity of viewing Messrs. Baker's houses, modern offices, nurseries, and seed warehouse.

CALL FOR WEBB'S REMOVAL

Only Growers Have Been Silent In Vegetable Price Battle

THE possibility of a nation-wide campaign on the part of housewives against high-priced vegetables grows daily with the increased support being offered by housewives throughout the Midlands to the decision of the Shrewsbury branch of the Midland Federation of the Housewives' League to boycott all vegetables except potatoes during the period May 8 to 15.

Housewives in the cities of Manchester, Nottingham, Birmingham, Liverpool, Wolverhampton and Bradford have already decided to join the boycott and London and other provincial branches will also be asked to add support.

Mr. Webb, the Food Minister, in a speech at Reading has told housewives that he is in "full sympathy" with their complaints. He blamed private enterprise for the vegetable position and added, "This shortage was foreseen by the Government and it was up to the producer to take measures." He added that the long-term solution was the re-organisation of marketing under public ownership.

These remarks on the part of the Food Minister brought forth emphatic protests from delegates to the annual conference of the National Federation of Fruit and Potato Trades meeting in Brighton this week who have decided to send a telegram of protest to the Prime Minister. This expresses the conference's "amazement" that a Minister of the Crown should endeavour to exploit a national disaster for the purpose of political propaganda and calls upon Mr. Attlee

to procure a withdrawal of this "completely misleading statement."

Mr. C. L. Boynton, past president of the Federation, suggested that Mr. Webb's resignation should be called for and this was supported by many delegates.

Mr. Ernest Walmsley from the Isle of Wight referring to Mr. Webb's statement that it was up to the producer to take measures, said, amid cheers, "I have never heard a more stupid statement by a human being in my life." His own losses last year were enormous owing to the drought, he said, adding, "When this man says the grower should take the place of God, it is time he was put in his place and I would love to be the man to do it."

Retailers have also forwarded protests to both the Prime Minister and the Food Minister. Mr. T. D. Matkin, national secretary of the Retail Fruit Trade Federation, issued a statement accusing the Government of using the crisis as political propaganda for their own pet policies of public ownership. The National Union of Small Shopkeepers has asked the Prime Minister whether Mr. Webb's statement supporting the boycott was made with Cabinet approval and whether it could be assumed that it would be the Government's future policy to support similar boycotts.

As we go to press, the N.F.U. H.Q. Vegetable Committee intimate that they will shortly be issuing a statement in which the growers' case will be clearly outlined in facts and figures.

THIS SPRING'S "LITTLE WINTER"

Unhappy "North-Of-The-South" Area Gets A Six Inch Snow Blanket Overnight

HEAVERY casualties, particularly among plums, were caused by freak weather on April 26 which, overnight, blanketed parts of Kent, Surrey, Hampshire, Wiltshire and adjoining counties beneath six inches of snow.

Although snowfalls were widely reported from all parts of the country during this period, the worst of the weather appears to have hit the North Downs area of Kent and Surrey and to have proceeded on a fairly narrow westerly course along this line.

In Hampshire, for example, the Basingstoke and Alton districts suffered heavily, whereas conditions were not severe in the southern half of the county. Much the same is true of the position north and south

DISTRICT - TO - DISTRICT SURVEY

WHILE it is too early to give an accurate account of the damage done in Kent by the recent bad weather, apart from plums this does not seem to be serious. Plum blossom, especially early varieties, is dropping badly in some areas. Cherries on the other hand do not seem to have been affected, except on the North-west side, where there is much bloom damage in evidence. Generally, open blossom looks very "sick" this year. Pears, which have blossomed heavily, are looking rather wilted. No reports of apparent damage to apples have been received, and as only a few areas had bloom open, it seems likely that we may have escaped trouble here. What is concerning growers most is pollination. With the exception of the humble bee, and a few insects, there appears to be very little life amongst the blossom.

A six-inch fall of snow in the Maidstone area (which appears to have been heaviest from Maidstone westward, to around the mid-Surrey area, roughly in a line approxi-

of the comparatively localised "blizzard-line." Thus, while many Kent orchards around the Maidstone district were heavily covered, fruit farms in Essex encountered nothing unduly severe.

On the whole top-fruits appear to have suffered less than from a late spring frost. Nevertheless it was bad for plums, and weight of snow caused considerable damage. Soft fruit bushes were widely flattened, but proved surprisingly resilient in the quick thaw. Blossom damage was not great. In the following weather reports from all areas, correspondents make it clear that storm damage is likely to prove far less serious than lack of pollination, due to the absence of insect activities.

mately following the North Downs) caused havoc among plums and on one farm a piece of Wyedales, exposed to the north, suffered tree breakages to the extent of 50 per cent. Early Laxton also suffered bad breakages in some Kent districts.

Weight of snow bent some blackcurrant fields completely to the ground but by evening most seemed to have recovered.

Red currants and gooseberries appear not hit heavily, but in places raspberries were badly broken about.

East Norfolk

FIRST surveys in East Norfolk show that both top and soft fruit suffered fairly extensively on many farms. Some growers are already saying that the blackcurrant crop will be considerably affected. The frost in East Norfolk reached 14 to 17 degrees and a biting wind and wet snow completed the damage. The bad spell is fairly widely admitted to be one of the worst at this time of year for at least 20 years.

Many growers who had hoped, on the basis of promising and well forward fruit indications, to go on to a successful season, now find themselves faced with a difficult time, and certainly with little chance of making up for their setbacks last year through imports.

Mr. T. J. Penrith, Horticultural Secretary to the N.F.U., stated this week-end: "A fairly comprehensive report from the East Norfolk area shows that, at the moment anyhow, there is a general feeling that damage has been pretty widespread. We hope there may be some favourable revision of this viewpoint in a week or fortnight when growers have had a chance to see whether the immature fruitlets and buds fall off."

One E. Norfolk fruit farmer said he found a large number of Bramley, Beauty of Bath and pear blossoms blackened right to the pistils, even in buds which had been fairly tightly closed. Pollination, he said, had become almost impossible in many cases.

On the brighter side of the East Norfolk picture is the fact that some particularly well sheltered farms got off much more lightly. In soft fruit there is always the chance, too, that blossoms well into the centre of the bush have escaped fairly well despite damage to those exposed on the outside. A number of strawberry beds in various parts of Norfolk are showing black eyes.

Wisbech

FROSTS are having their affect on fruit prospects, and that registered on April 26, varying from 10 to 14 degrees of frost around the district, is the worst up to date. Readings of 26 degrees F. on the mornings of April 13 and 16 were considered responsible for the loss of a number of Bramley blossoms, although pears and plums seemed to stand these freezes quite well.

On the morning of the 25th, 28 degrees F. was a common reading, but this was definitely a wind frost from the north, whereas the frost seen the following morning was by radiation with hardly any air movement at all. It is most unusual to find 4 degrees of frost as seen on the Tuesday evening at 8 o'clock; and this gave a hint of something severe to come.

While there is general reserve here as to how prospects are affected, it is obvious that a considerable proportion of most fruit blossoms, both open and closed, are killed. The few strawberry blossoms open in sheltered spots on early varieties are blackened, and gooseberries and currants are expected to thin a good deal. With three more critical weeks to go through, growers feel that it will be some time before it can be seen how blossoms have survived. But it suffices that, for April weather, bad as it can be for orchard and soft fruit growers, we have had something rather exceptionally severe.

West Norfolk

WEEK-END gales were followed by snow and blizzards. Temperatures dropped to 7 to 10 degrees of frost. Cherries were most severely affected; blossom is entirely black, and the prospects for the crop decidedly bad. Present estimates are virtually nil.

Plums are undoubtedly damaged, but the extent cannot be assessed for about another week. Pears have suffered, but damage is probably not so serious.

Black currants are severely damaged, and the crop will almost certainly be very light. Gooseberries are also fairly badly damaged,



Left: Snow on plums in full bloom near Maidstone. Right: Three-foot tall Wellington XXX blackcurrants flattened to the ground on the same farm.

and this crop will be considerably lighter than anticipated.

Strawberries, however, apparently escaped, as the blossom is not sufficiently formed. Plants seem healthy but the buds may have been affected.

Among apples Bramleys appeared to have suffered damage, with desserts less definitely affected.

Essex

SIX insignificant little words with a big meaning: "There are warnings of frost tonight" mean anxious moments at this time of the year; but to date the damage has been negligible and only in one case have I heard of bales of straw and old prunings being ignited to stave off a threat, but there are a number of farms where all preparations have been made. Near Witham we have seven thermometers placed round the orchard, each with a needle which records the minimum temperature reached and the time; the worst readings recorded were on the night of April 25 when at 10 p.m. it went down to 32 deg. and at 6 a.m. on April 27 it recorded 34½ deg. Admittedly we are on a hill, but it does show that Essex has so far avoided the bad weather and snows of Kent and other southern counties.

Annoying, but not so serious, is the perpetual wind which has temporarily put a stop to spraying. It is hardly the force to uproot trees, but it has caused minor damage in a small way. Pink Bud spray was due about April 24 but there hasn't been a chance of applying it due to the wind. What of the bud prospects? Perhaps a bit early yet to say very much but it does appear that Cox are budding up much better than originally thought—Worcesters are, as usual, very slow but there seems a fair amount of bud. Pear blossom was good.

Wiltshire

ON April 26 the county was covered with snow to a depth of 4 to 6 inches with the surface firmly frozen.

Apples have been very slow in reaching the "Pink Bud" stage, the only variety having open flowers being James Grieve, Cox, although in pink bud, is very tight, and Bramleys are not yet at full pink bud stage. Little, if any, damage has been caused. Pears, although in full bloom, seem to have withstood the frost, the only evidence of damage being slight browning of the petals.

Plums, however, have suffered badly. Those which had set are now dropping in profusion.

Blackcurrants were flattened out with the weight of snow, many breakages having taken place, particularly on the current year's growth. The blossoms, however, appear to be unharmed. Gooseberries in most places seem to be badly damaged with little prospect of recovery. Even the leaves are showing the effect.

Hampshire

ON the morning of April 26 only 4 deg. Fahr. of frost was registered. At 6.30 a.m. the temperature was 30 deg. Fahr. The Basingstoke and Alton districts were more severely affected. I venture the opinion that the effect of this cold spell is less serious than was primarily thought.

Black and red currant shoots were flattened to the ground by snow, but have now returned to normal, with the blossom unharmed. Gooseberries, now past the blossom



Left: Pollination was not improved by snow-clad orchard beehives. Right: Wyndale plums a total loss, the trees splitting under the heavy weight of snow



stage, are unaffected. Malling Promise raspberry canes were bent, but have escaped injury. Norfolk Giant is late and not hurt. Strawberry flowers are not seriously injured, and a number of blossoms covered with snow are now perfect. Pears and plums have had slight injury, and apple blossom was torn by the gales to a small degree.

Channel Isles

DESPITE high winds, hail, and up to 4 deg. of frost, effects of the recent spell of bad weather have not been unduly serious on the Channel Islands.

Some patches of early potatoes on Jersey have suffered a set-back of about two weeks, where the seed had been set out in too tender a condition and had not hardened off due to the previous mild weather.

Flower growers on Guernsey report no ill effects of any moment; tulips and iris seem to have escaped the storm. Hothouse tomato growers, however, have had to dig deeper into their coal-heaps than they care.

Cumb. And Westmorland

THE recent spell of frost and snow had varying effects in these counties. The lower lands had less snow but more frost than those higher up, and the damage is not nearly as severe as was expected at the time. This may be largely due to the timely warning given over the radio, which enabled glasshouse growers to prepare.

On the whole, blackcurrants appear to have survived but some growers report damage. Any potatoes which might have been through will have been cut down but the frost does not appear to have penetrated frames. The weather continues cold and showery, making outside work difficult.

Tamar Valley

BLOSSOM has come under a severe test during the last few days. Nights have been cold with ground temperatures just below freezing. On the night of April 25, snow fell in many parts to a depth of about

half an inch, and on April 26 the wind was blowing with gale force all day long.

At present, growers are unwilling to commit themselves as to the damage done. The gale was very strong, but they do feel that more damage might be caused by the absence of pollinating insects rather than the actual force of wind itself. The cold weather has checked the flow of sap, but the frost was too light to do serious damage. Cherries are just past their peak period of flowering, and while Huxley Giant strawberries are showing white with bloom, Madame Lefebvre has hardly come into full bloom yet.

East Sussex

THE recent exceptional spell of winter weather is believed to have appeared worse than it was. There was widespread frost on April 25, although generally less than 5 degs., followed by a thaw and snow-storms. By morning the country was white, but the worst of the weather passed farther north. Top fruit growers in the low-lying areas are optimistic, and lack of pollination may prove the chief worry.

From the Newick area reports are again encouraging. Only the earliest strawberries are in flower and little damage has been done. Gooseberries and currants are only slightly damaged.

Vale Of Evesham

INDICATIONS are that the cumulative effect of the chilly, blustering winds, two sharp night frosts and freak snow-storms, plus a little hail, may result in very few plums this year. Unfavourable weather had already delayed blossoming and the early plums, particularly Prolifics, look like being a very meagre crop in many orchards, where the slightest touch will cause the freshly forming fruit to fall to the ground.

There are varying reports about yellow Egg plums and it is too early to assess weather damage to Victorias. So far apple and pear blossom shows little sign of damage.

Low-lying plantations had a degree or



Lighting smudge pots as a precautionary measure in a Paddock Wood, Kent, orchard the night prior to the blizzard

two more air frost than those on higher ground; there was a maximum of three degrees of air frost and a minimum of one degree during the two worst nights. On the grass nine degrees of frost was registered in a number of places.

Half-melted snow froze solid on orchard trees, fruit bushes and vegetable crops. Strawberry beds were encrusted with ice and leading blossoms were blackened. Blackcurrants seem to have been badly hit in some places; asparagus heads were caught and early peas and beans were knocked about.

Herefordshire

SO far the severe weather has done remarkably little damage to Herefordshire fruit plantations. Gales locally have not been as serious as those experienced in other parts of the country and growers have taken adequate precautions against frost.

The plum and pear blossom is over, and apples are not very far advanced, but growers, realising that the trees are very susceptible to damage just now, are constantly on the alert.

The unusual sight of snow on the fruit blossom greeted growers on two mornings in the early part of the week, but sunshine quickly dispersed the snow and growers say that as far as they can tell no damage has been done.

Scotland

FRUIT growers in the Clydesdale Valley fear that the plums and gooseberry crops have been seriously blighted by the sharp frost in Scotland at the beginning of the week. While the frost did not show much on roofs or land, there was ice on any water left outside in orchards and gardens.

The crops of plums and gooseberries were affected over a wide area, and reports state that severe damage has been done to the plums. This is the fourth successive year the crop in this area has suffered in various degrees from frost. When such experiences have occurred in the past they have usually been later in the season—about the third week in May is the time which growers generally fear.

The apple and strawberry crops in the area are not yet in bloom and may still fruit well. Black and red currants, however, are more doubtful, as these were in bud though mainly not in full blossom.

Gloucestershire

EVERY grower in this district can be said to have his fingers crossed and is wondering just what the prospects are for his crops this year. The month of April ended with hail, snow and frost and even now there is no apparent end to the very high winds which accompanied them.

There is quite a heavy show of blackcurrant blossom and as yet no apparent damage but it is still too early to forecast what the

crop will turn out like. Strawberries do not look at all happy; cold winds have thrashed and bruised the leaves and growth is slow. The fruit trusses are not yet open but given a few weeks' warmer weather things could improve greatly.

There does not seem to be any excessive damage to fruit blossom yet—apples are not fully in bloom.

The early potatoes which have made an appearance have so far only caught the frost slightly, although the young shoots look chilled and miserable. The early market garden crops are backward this year and all need some really warm days to get them growing satisfactorily. Early peas raised under cloches have stood up to the cold winds better than could be expected but are now standing waiting for a change for the better. We have not had the hard frosts experienced in some counties and consequently perhaps it is easier for us to look on the bright side and wait till we know the position with more certainty.

Devon

IT is still too early to decide whether fruit crops have been seriously damaged in Devon, but every crop is backward by comparison with a normal year, and in the case of apples this has been a useful source of protection against the recent cold gales and weather, which included two inches of snow in East Devon.

Plum growers will not commit themselves yet, but early strawberries like Dawlish Wonder, Axbridge Early and Perle de Prague all show a high percentage of "black-eye." Later varieties like Sovereign and Huxley, from which the main crops are picked, are not yet in bloom to any great extent.

Currants so far appear to be safe, but gooseberries are showing a 25 per cent. drop. Earlier pollination, however, was particularly good, which may offset this loss to some extent.

GERMAN MULTI-PURPOSE MACHINES DEMONSTRATED

NEW German multi-purpose machines manufactured by Messrs. Reining of Dusseldorf have been demonstrated at Monktonhall, Musseburgh. Designed for the standardisation of methods in the growing of potatoes, turnips, cabbages and other root crops, the ten units shown have been accepted by experts, including Mr. David Lowe, Mr. R. L. Scarlett and the Sub-Committee of the Scottish Council (Development and Industry) Agricultural Machinery Committee, as meeting the purposes for which they were offered.

Although potatoes are mainly concerned, the equipment is designed for multi-purpose use on a variety of crops, and covers planting, covering, cultivating and ridging of potatoes and sowing and cultivation of

turnips. The saving of time in adjustment and changing attachments is considerable, the implement being constructed so that these operations can be carried out in a few minutes and without tools.

Plans are now being prepared for a demonstration in the Clyde Valley area of these implements, which impressed the large gathering of experts and were generally regarded as fulfilling the claims advanced for them. There is possibility that they may be produced in Scotland.

This demonstration completes about one year's work of the Agricultural Implement Sub-Committee of the Council and is evidence of the anxiety of the Council to expand activity in this field throughout Scotland.

Horticultural Debate In Commons

THE following motion has been tabled by Mr. Gerald Wills, Conservative Member of Parliament for Bridgwater, for discussion in the House on Friday, May 5. The motion has the full support of the Horticulture Committee of the Conservative Party.

"The Horticultural Industry.—To call attention to the prospects of the horticultural industry, and to move that this House calls attention to the necessity to improve the prospects of the horticultural industry

in order to maintain and increase the variety of fresh home-grown food for the people; considers that the importation of foreign horticultural products, including fruit pulp, should be more strictly controlled during periods when adequate home-grown supplies are available, and that every encouragement should be given to the industry to develop marketing arrangements by ensuring that adequate supplies of tins are available for canning, and by making the fullest use of modern storage."

WILL SYSTEMIC FUNGICIDES BE NEXT?

Scientists Believe Growth-Promotion Substances May Have Use In Building Up Spore Resistance Of Plants

By A Special Correspondent

THE inauguration of a Crop Protection Panel under the aegis of the Society of Chemical Industry must be of interest to all growers, and I attended the recent inaugural meeting at the Royal Institution, under the chairmanship of Mr. L. H. Lampitt, D.Sc., F.R.I.C., M.I.Chem.E., with eager anticipation.

Dr. Hubert Martin of Long Ashton Research Station presented a most interesting paper on "Advances in chemical methods of crop protection." This was highly technical, and whereas four-fifths of it was undoubtedly of great interest to chemists working on the problems of chemical crop protection, most of his remarks were of concern to the grower only in their ultimate application. Indeed, as Dr. Martin pointed out in the beginning, the subject covers the entire field of chemistry to such an extent that it is a full time job to keep up to date with the progress of research. In fact his paper dealt largely with matters which concerned his own work at Long Ashton.

Advances in the type of mechanism for the application of sprays were first dealt with, and were illustrated on the screen. It was mentioned that modern power spraying by hand gave a uniform control of application which could be considered satisfactory in every respect except that labour costs were considerable.

The development of automatic application often meant that the requirements for water were too great, and the recent trend to develop application by air stream presented problems among which was the necessity of research into the optimum size of particles. If the particles were too small they failed to impact, and difficulties had been encountered on the other hand because the accumulating deposit on the surface of a plant might be too great. In ordinary liquid spraying any excess liquid runs off the treated surfaces, but with air-stream application the excess remains on the sprayed plant.

It was interesting to hear that non-phytotoxic fungicides were now available, and compounds were being sought which could be accidentally applied in excess without danger to the growing crop.

Within The Tissues

Later Dr. Martin referred to phosphorus and fluorine compounds which could be used systemically and were translocated within plant tissues without harm to the plant. The information dealt with water soluble and colourless solutions which might be applied to leaf surfaces where they were absorbed into the tissues, or watered on the soil to be taken up by the roots and translocated throughout the plant tissues. Experiments on cauliflowers in pots showed that an extraordinarily weak solution was toxic to feeding caterpillars, and killed them before much damage was done to the leaves. The caterpillars had only to nibble the tissue to receive a toxic dose.

Dr. Martin went on to discuss variants in the chemical formulae of compounds which had strangely different results, and which might in time lead to selectivity. One variant would kill caterpillars, while another would not, and a toxic dose could be de-

veloped which would kill a pest but leave ladybirds predators unharmed.

Most of these compounds were highly toxic to animals, and perhaps human beings, but search was continuing for a less poisonous molecular construction which could be used with safety. Recent advances gave hope of ultimate success, and tables were presented which listed the present formulae, and showed a progressive trend. Some of the most effective insecticidal compounds which could be used systemically, were precluded from use because of the extremely high mammalian toxicity.

Among the compounds of hopeful application was one, which, in an extremely dilute dose, could render a plant toxic to aphids for 34 days, even though a plant might grow considerably larger during this period with a corresponding further dilution throughout its extended tissues.

At this point the lecturer mentioned Parathion and its variants, and spoke of work on heat treatments of crude Parathion to separate its isomers, with the object of isolating those which might be non-toxic to mammals. Undoubtedly science is on the road towards producing molecular compounds, which can be absorbed by plants and have a selective and toxic effect on insect pests without hazard to human health. The impression was given, however, that Parathion compounds in present use were still dangerous.

Gradually Exposed

The next question was of great interest, and dealt with advances in research towards the use of systemic fungicides. A fungus may produce a toxin within a plant which gives symptoms well beyond the point of infection, as is instanced by the silver leaf disease of plums. The nature of these toxins is being gradually exposed, and it is possible that ways and means may become apparent whereby these toxins may be neutralised by therapeutic treatment. Plants themselves produce anti-toxins to this effect, and certain of these substances are known to be fungicidal.

Search is being made among some of the growth promoting substances, for instance, which are transportable within a plant's tissues and can therefore have systemic application. Leaves have been immersed in solutions of some of the compounds used in America for seed protection, with indications of increased resistance to germinating spores.

Encouraging results have, therefore, been obtained in this field, with the object of rendering plants immune. A resistance might be imparted which would inhibit the germination of fungal spores, or be toxic to invading hyphae. It is necessary for a systemic fungicide to be soluble, stable, and harmless to animal life.

Advances have also been made in formulating sprays to replace those containing sulphur, of which certain well-known fruits have hitherto been intolerant.

Dr. Martin came to the end of his paper with a very needful warning against the use of new compounds before full field tests had been carried out. The introduction of a new chemical compound may alter agricultural techniques profoundly, and there are

many biological questions which must be considered.

Dr. Holmes proposed a vote of thanks, and remarked that a fruit-grower friend of his had said that he longed to get back to the day when a bucket of Paris green, or of lime wash, sufficed for all the ills which beset a fruit-grower. He applauded the paper, but disagreed on a minor point concerning the action of Parathion variant which he said was an excellent control for red spider.

Dr. Wade seconded the proposal, and Dr. Martin made a short reply in which he said that he had no doubt that the compound used by Dr. Holmes was effective against red spider, but what worried him was that it might be toxic to himself! The meeting closed with an appreciation by Mr. Lampitt of the aims and value of the new Crop Protection Panel, and an appeal to members of the Society to join.

The point raised jokingly by Dr. Holmes, which hinted at the ever increasing and confusing array of chemical compounds used in crop protection, is one that should not be taken lightly. It is a matter which might well be considered by the new panel with a view to constructive action among the Chemical Industry's own society of members. When a new insecticide or fungicide is placed on sale, surely some agreement can be reached among the manufacturers who make it to avoid adding to the ever growing confusion with a galaxy of new proprietary names.

Crop protection is nothing new. Pathologists, mycologists, entomologists and biologists have all been working on the subject in their own spheres, and in liaison with each other. But they are not chemists, and the word chemistry in the past has usually been coupled with the soil. The new service will succeed, only if it links up a team with the aforesaid older sciences, realising to the full that a systemic insecticide or fungicide applied to the soil may have a deleterious effect on mycorrhizal relationships; on the micro-fauna and micro-flora of the soil; and disturb the balance of nature whereby crops may be kept free from attack by organisms other than those for which a specific remedy is attempted.

Against Each Other

In the field of antibiotics, Erna Grossbard of the Imperial College of Science and Technology has shown that soil organisms and fungi produce inhibiting substances which they use against each other in their struggle for existence, whereby nature is held in balance. The marvellous use of antibiotics in medicine is still in its infancy, though the value and use of penicillin, streptomycin, and chloromycetin are now well known.

Whereas research has hitherto been concerned in testing the antibiotic substances to obtain curatives for human ailments, pathologists are now turning to the possibility of curing plant diseases. In this field substances may ultimately be economically synthesised to produce systemic control of bacterial and fungicidal diseases, and it is one where chemists and pathologists must be in close liaison. Whereas pathologists may be mainly concerned with biological controls, the chemist may provide short cuts.

FURTHER "Squibs" LETTERS

HOW A WATER TOWER WAS BUILT

Grafting Wax Recipes — Spraying Problems — Filling The Tank — Nozzle Adjustments — Bees And Pollination — Predicting Frost

DEAR RALPH.—I was tickled to death with your amusing letter, and give you full marks for coming out of hibernation before me; but believe me, although I have apparently been asleep all this time, I have really been grappling with pruning and the many winter jobs which are far too numerous to mention. You know the sort of thing—coping with mud, machinery, underground main repairs, etc. etc.

I expect you are pressing on with grafting; maybe you are overworking some young trees as we are, and I would like to mention a couple of grafting wax recipes I have come by recently and worked with great success. In common with several other growers, we find that some proprietary grafting waxes become very brittle after a time on the tree, which allows air to get in and the grafts to suffer accordingly.

Low Fires Safe

I know growers are sometimes put off making their own grafting wax through the notion that the process is tricky and that accidents of burning can occur to the workers. I entirely agree with this, but I think it is usually due to the fact that the ingredients are put into a container over too fierce a fire. In each case recently I made this wax over a primus stove from dead cold, and only in the instance of the Russian tallow recipe did the pail boil over. This was entirely my own fault, due to adding in the Burgundy pitch in too large a quantity. I found afterwards that my suppliers sent the wrong pitch, which should have been black pitch; when we came to make a fresh mix no trouble ensued. The two recipes I am using are as follows:

Recipe 1

- 4 lb. Russian Tallow.
- 8 lb. Bees Wax.
- 16 lb. Resin.
- 4 oz. Venetian Red.

Recipe 2

- 16 lb. Resin.
- 6 lb. Venetian Red.
- 6 lb. Russian Tallow.
- 2 lb. Black Pitch.

In the case of the last it is very important to mix the ingredients in the following order otherwise the content may ignite rapidly. First boil down the Russian tallow, then add the resin, then the black pitch (and it is this ingredient which can cause undue activity) and finally the red ochre. Keep the ingredients just on the boil while mixing. I have found that if one has a smaller container—about a pint size tin with a wire handle and using a cheap paint brush—the wax in this container can be kept a good deal cooler than the main-grafting wax pail over the brazier, and that the bristles of the brush do not become burnt. As a result of using a brush very little waste ensues—I mention this as it is one of those small practical points which make such a lot of difference in the field.

I do not know if water supply for spray-

ing is beginning to loom up—it did with me in the very early days—and while I agree you can use an ordinary 40-gal. wash drum with the top removed, mounting this on a sledge with a hand headland pump, this is really very crude and the whole thing looks a bodge; furthermore you will be surprised what a lot of wash you will lose by slopping. Far the better way is to devise a tank as in Fig. 11. This is also made from a 40-gal. wash barrel but, as you will see, this has been modified by welding a neck on the side of the drum, over which a close fitting cover with lip can be attached.

I also felt it worth while to scrounge from the nearest car breakers yard the base of an old headlamp which was semi-spherical in shape. This allowed the pump suction pipe to be at the lowest level, so that the last drop of wash could be extracted. It also served as a sediment sump which helped quite a lot in avoiding blockages in the spray lances. The whole tank was mounted on a small trestle cradle and we used this for two to three years before we found that the 35 gallons, which was the useful economic amount to fill this with, proved inadequate.

Our next move, on buying a pull-through sprayer, was to erect a water tower with a really generous-sized outlet (3in. diameter) making use of the height of the tower to get a hydraulic pressure (this is approximately ½ lb. per foot rise). This proved so satisfactory that several growers, and three small nurserymen, have borrowed the original drawings to erect their own water towers. We are still using ours and can fill a 250-gal. tank in under three minutes, which is quite fast enough to allow workers, in the meantime, to measure out and mix up the many ingredients.

A Modification

I agree, of course, that since 1938, when this tower was erected, some spray manufacturers have fitted an injector where water can be sucked up from a tank at ground level, but I will refer to this modification later on. While you can approach some firms and get a proprietary galvanised iron water tower, which is all very nice, the cost is quite prohibitive in one's early struggles in fruit growing; the cost of our tower was under £16, materials only, the height being 20ft.

From Fig. 12 and 13 you will see that this tower has been built on the trestle bridge lines of the Canadian Pacific Railway, and the whole of the structure is completely built from 4in. x 2in. timber, which was then quite easy to come by. You will see that the struts are virtually of similar scantlings, of a solid 6in. x 4in. Unfortunately I cannot give you the notes about the actual point loads of the two bays, but I can assure you that this tower will support a 500-gal. tank.

In the early days we certainly could not afford anything so expensive as a tank of

that size, and for the first three or four years we used two 40-gal. oil drums which we obtained from a dealer for 5s. each; when finances were a little easier we were able to utilise the existing connections for a 500-gal. tank.

I would stress the advisability of ensuring that all the timber to be used in the job is heavily tarred under pressure—we were lucky to get our local merchants to pressure all the timber in their plant; this added very little extra cost to the job and one had the satisfaction of knowing that all concealed joints were adequately protected from the ravages of weather. Most big timber importers and merchants will undertake this work.

The method of construction was really very easy, and in fact I had to employ no labour whatsoever except at the time of erecting the tower. I did the whole of the work myself with the help of my son, who was no more than eight years old—and believe me he was of the greatest value in drilling holes prior to inserting the bolts and washers! I mention washers particularly, as this adjunct is of the greatest importance otherwise the head bolt, when drawn up, will crush the timbers to their detriment.

Four-Man Job

As you will see from the design, the tower is made virtually in two side bays and the cross members which brace these are put on by coach screws as a last operation. When erecting the two bays you will require additional help; I think we had four men with a ladder and a plumb line to assist—this was not difficult. Having roughly erected the two bays, a batten on either end was loosely nailed, with the bays in their approximate final position; this enabled the ladder to be placed against the structure, and the whole "faired up" with the plumb line.

Once this was achieved, by wriggling in easy stages first one bay then the other, the more substantial cross batten was hastily nailed on, after which one could take one's own time in applying the permanent cross braces and coach screws.

I would stress one slip up we made—again I suppose finance was the difficulty. We failed to place the tower on a concrete foundation, and during one of the equinoctial gales we had the mortification of seeing the whole structure blown down. (Black mark, Bentley!) In a way this was most gratifying as no damage whatsoever resulted to the structure, although naturally the two oil drums were destroyed. I think it was at that stage that we felt, on erecting the job properly, a bigger tank should be placed on top.

To avoid a lot of carpentry you will see the very lazy way in which I got over the rake of the top timbers as, of course, it was necessary for the final platform to be bedded on the level ends of the two bays.

The angle of rake was taken from the drawings and set out at the stage of drilling the bolt holes through the 4in. x 2in. timbers. I show enlarged sketches of this, see Figs. 14 and 15, which are self explanatory.

How you are to fill this tank of course is your own problem. We had an existing well and utilised a small two-stroke 1½ h.p. job with a double acting plunger pump. Later we managed to get on the main, and in conjunction with the usual control of ball cock, further worries of pumping were overcome. The latter method, of course, is ideal as you will be surprised the number of man-hours in a year which are saved by messing about with refractory engines in trouble on cold mornings. There again one cannot do the impossible in the early days, and one has to cut one's garment according to one's cloth.

I hinted earlier on that if your sprayer was fitted with injector you could devise your water supply from a tank on the surface, and now that we are trying automatic spray bars to our pull-through we find that the feed intake of 500-gals. an hour is just too little. The recent acquisition of another 500-gal. tank coupled up to the same feed supply, and another ball cock, now enables us to spray without delay. You will probably devise a branch pipe from

the rising main as we did, for drinking purposes or washing down machinery.

Talking about automatic spraying; while I admit we have not a great deal of data yet to work on, one thing is quite obvious—that a great deal of labour-saving has already been achieved.

I would point out that the spray bars as recently supplied by the manufacturers, see Fig. 16, were quite inadequate when they were in the form of an "A." On investigation we found other growers had modified the spray bar as in Fig. 17 so that, in fact, one was only spraying one side of the tree, but with a greater number of nozzles. This has proved fairly satisfactory. I would not suggest for one moment that you can do your winter washing as efficiently as you will by lances, and we have no intention of using the automatic for winter wash application.

At present we are using eight No. 6 nozzles with No. 7 Swirl Plate and a pressure of 400 lb. and, with the tractor in third gear (case), we are putting out something in the order of 280 to 300-gal. per acre. This is not quite sufficient—I would like to see an output of 350-gal. to the acre—and with our next spraying wash we intend increasing the pressure by the regulator.

I trust, Ralph, you have heeded my

recommendations about obtaining bees for the coming pollination. If you have not had the opportunity of getting established hives you can, for an outlay of about half a guinea, hire hives for the period, on the understanding that no spraying with arsenical washes is carried out during the blossom period. This, as you know, a good grower simply doesn't do!

May I also remind you (in case you have forgotten!) that we are shortly entering the frost period, and on the lines of knowing your orchard—which was the subject of an earlier letter—I did suggest the acquisition of a "Cunningham" frost predictor. This instrument, which is quite infallible, will give you an indication by sunset if a frost is imminent, provided the atmospheric conditions do not alter.

Here's wishing us both a very prosperous season, and do let me know your worries if you have any.

Yours sincerely,

"Squibs"



Fig. 11. 35 Gall. Wash Tank

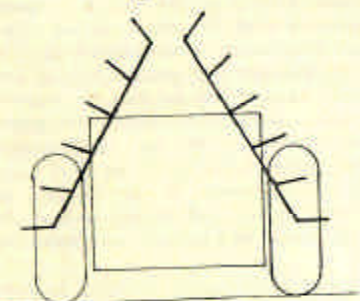


Fig. 16.

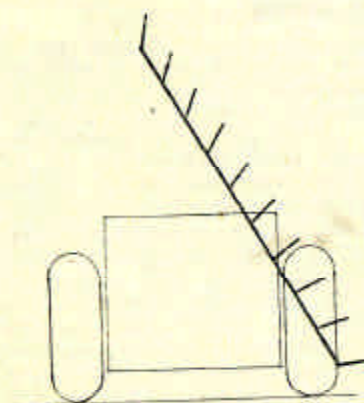


Fig. 17.

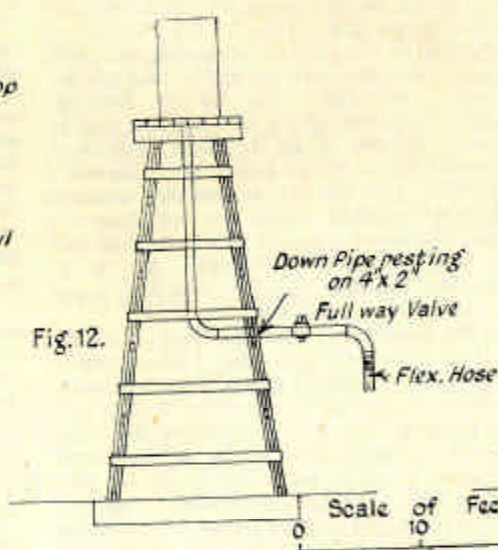


Fig. 12.

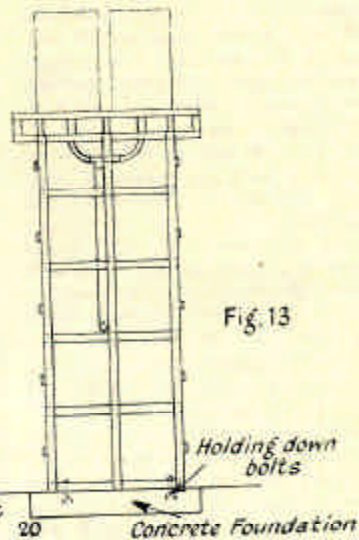


Fig. 13

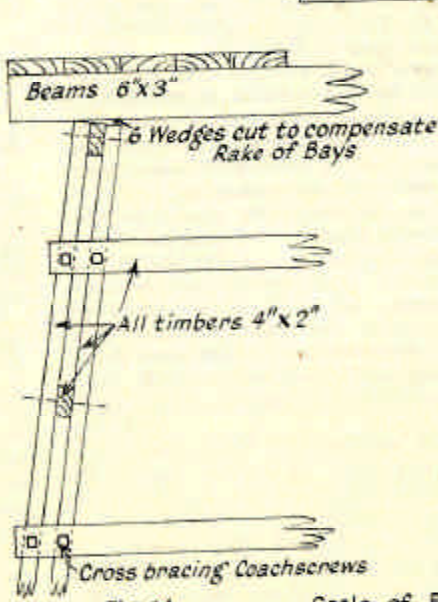


Fig. 14.

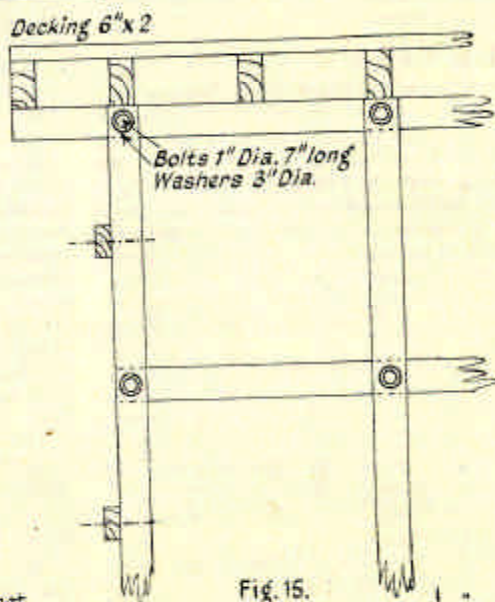


Fig. 15.

Squibs 27/49

MIDDLESEX COULD HAVE LEARNT ABOUT MARKETING

But Snowstorms Or Seasonal Tasks Kept Many Growers From The Hampton Conference

NO one was quite sure whether it was the previous night's heavy snowstorm, which was reported to have done some damage to glass in the area, or simply that growers were too busily occupied on seasonal cultivations, but attendance was exceptionally poor at the N.A.A.S.-organised Packing and Marketing Conference at Hampton last week. Nevertheless, after delaying the start in the hope that late comers would arrive to lend warmth to the cold and empty hall, it was finally decided to begin with an audience of sixteen.

Speakers at the morning session were Mr. J. F. Goaman, Senior Marketing Officer, Ministry of Agriculture, who dealt generally with the subject of marketing horticultural produce, and Mr. C. Rex-Hassan, Marketing Manager of Messrs. Brown Bibby & Gregory, who outlined the advantages of pre-packaging. In the afternoon—by which time the attendance had increased to 30—the salesman's viewpoint and then the grower's viewpoint on flowers was given by Mr. C. A. Naef, of Messrs. J. & E. Page Ltd., and Mr. R. Hepworth, B.Sc., N.D.H., from Swanley, Kent, respectively.

Mr. Goaman said that marketing problems for the Middlesex grower were greatly simplified owing to the fact that the markets were more or less local and there was less need for co-operative marketing to be considered. However, national advantages should not lead the Middlesex grower to sit back. There was need for continual alertness to every advance in production and marketing methods.

He believed that every grower should think in terms of defined national standards and, after giving the historical background to the formation of the original National Mark Scheme, he came to the following conclusions: in certain circumstances a grading system was necessary for the conduct of trade; a formal grading system for one purpose could induce its use in other circumstances; a successful grading system would lead to its adoption by people in other areas; a lack of close definition led to confusion; and a national grading system was a logical development from trade experience of other systems.

Pre-War Scheme

The pre-war National Mark Scheme had been only a partial success. The post-war approach to the standardisation of fruits and vegetables was on different lines and had the following aims: (1) to make the grade definitions more simple and to cover the whole range of marketable qualities; (2) to improve the control system; (3) to make the scheme more flexible; (4) to give all sides of the industry more voice in every aspect of the development and control of the marketing scheme.

The use of defined grades was not difficult nor expensive and would not add much to the cost of marketing. The first essential step in grading at little or no cost was to "grow the grade." Striking advances had been made in recent years in growing uniform crops which lent themselves to field or orchard grading.

A whole plantation of blackcurrants could be graded by a very simple method, the only equipment necessary being a small parallel bar screen, each bar being $\frac{1}{2}$ in. from each other bar with a tray fitted below. The

pick about half a pound of currants as an initial sample, these currants being carefully strigged and the number of green, red and black counted. The proportion could be calculated to see if the grade colour requirement was complied with. All the strigged currants could then be screened and the number passing through the sieve counted. The proportion which was of a minimum diameter of $\frac{1}{2}$ in. could then be calculated and a determination made if they met the requirement of not less than 60 per cent. of a minimum diameter of $\frac{1}{2}$ in. for the selected grade.

If the sample did not reach this select requirement, the currants might make the standard grade. The plantation was then "walked" and the bushes looked at with reasonable care. In a few cases, other samples could be taken and riddled. The bushes which obviously did not make the grade should be marked so that they were not packed. This method had been practised before the war and had been found very successful.

Lettuce Crates

During the discussion the depth of standard lettuce crates came in for criticism, a member of the audience suggesting that these crates were not deep enough to take the lettuces comfortably but led to bruising. Another grower agreed with him and said he had been able to get 1s. extra on lettuces packed in a bushel box. Mr. Goaman's opinion was that the present day tendency to grow a bigger lettuce was not altogether good because the housewife usually preferred a small, hard-hearted lettuce. Mr. F. T. Mason, however, thought that the larger lettuce had a better sale.

Mr. Rex-Hassan, the next speaker, has recently returned from the United States, where he has studied trends in prepackaging. He was impressed over there by the fact that it paid the grower to prepackage his crops under a brand name which the housewife eventually got to know and to ask for time after time. His talk, illustrated by samples of prepackaged produce passed round among the audience, followed the same lines as the article he wrote for *The Fruit-Grower* recently (see issue of March 2).

A grower in the audience, Mr. F. Addey, said that he had dabbled in prepackaging and, from the grower's point of view there were several snags to be taken into consideration. It had often been found that a good sample of any product put up in the normal way, made a better price than a cut and trimmed sample of the same product. In this respect, it was the retailer who wanted educating. He should be prepared to take a lower margin of profit on a prepackaged article because there was no waste to it. Another disadvantage was that when crated, a trimmed article took up less room and it was necessary to put more in the box to fill it.

On the question of heat-sealing transparent film bags, he thought the grower should first make trials under all sorts of atmospheric conditions as there was a tendency for these bags to come undone.

Mr. Goaman thought that the choice of the right sort of film was important. The D.S.I.R. was working on this problem and he advised growers contemplating prepackaging to first get in touch with the Ditton

the bulk of cauliflowers leaving Italy for Scandinavian countries were wrapped, so it appeared that foreign competitors were already finding this advantageous.

Mr. Rex-Hassan rose to say that a senior official at the Ministry of Agriculture had described the grower as the tidiest-minded individual in any industry but the state into which his produce got after it left him was appalling. Because of this, Mr. Hassan thought that the Government should make some concessions to the progressive grower who was willing to give the public better and cleaner produce.

Mr. Naef called for a better understanding between all sections of the flower trade, a very unsteady trade which depended, among other things, on wind, weather and the whims of ladies. In this, unlike many other industries, it was the producer who was of primary importance because from him came the continuous flow of produce all other sections depended upon. The producer was the man who put all his capital, and re-invested his profits, in his land.

The salesman was the fellow who was never right. All the morning he sold too dearly and, later on, the grower told him he had let his produce go to buyers far too cheaply.

Liaison between the grower and salesman was important and personal contact between them beneficial. The salesman should see his goods were on sale as early as possible in the morning at reasonable prices. Another duty was to see that the flowers were offered to the distributors on the day of arrival. Any stock left over must be kept aside and sold as left-overs.

The florist should get to market as early as possible so that he could obtain those extra lines which were soon snapped up. The florist often thought that prices charged him were above reason but he had to remember that there were three distinct categories of flowers—those with an international value, those with an internal value, and those with a local value only. In the case of the first, all of Europe, and in the case of the second, the whole of England, was operating the price.

The grower, for his part, should pay attention to grading and packing because the buyer was shrewd and the good grower soon obtained his confidence.

Keeping Quality

The keeping quality of flowers was of paramount importance and all concerned should dispose of them as quickly as possible so that the customer got a fresh article. Growers should cut blooms before they reached their prime condition.

The flower trade had not yet reached saturation point. Money was now spread over the country more evenly than ever before and if all played their part in providing the public with the right article, trade would expand. The period when flowers could be sold at above reasonable prices had now changed, production was increasing and sooner or later, flowers would have to be sold at below economic cost. It was time to face facts. The only hope of survival lay in an all-out effort to serve the public well.

The grower could help by seeing that his produce was properly bunched. Some growers failed to make their boxes full

cross-sticks or thought there was no need for them at all.

In the discussion, Mr. J. Hardy wondered whether it was possible to provide some sort of top to packs in the markets to prevent handling by customers but Mr. Naef was convinced that the public had to have access to the goods they were buying. It needed a great expert to be able to judge flowers at a glance, he said. Flowers were very temperamental. They might be sound enough while being packed but when they reached market they were not always in the same condition. Nobody could guarantee the article without inspection.

Mr. J. Maher wanted to know what was being done in the markets to impress upon the porters the need for careful handling. Mr. Naef replied that this was a difficult problem because porters were not easy to obtain. If they were tackled in the way that Mr. Maher wanted, there would soon be no porters in the markets. Mr. Mason thought that porters could be educated by inviting them to visit holdings to see flowers being grown.

Summing up, Lt.-Col. P. C. Kay, chairman, reported that on a recent visit to Holland he had been impressed by the fact that the Dutch grower was going all out to get into the British flower market. The only answer to this was efficiency on the part of the home industry.

The last speaker, Mr. Hepworth, said that although the flower grower had up till now been able to obtain fair returns, the red light could be seen and growers should endeavour to improve their standards. Much could be learned by frequent visits to the markets, something he himself did at least twice a week during the season.

Outlining selling points in the packing of flowers, he said that his workers were always encouraged to grade up rather than down. Market trends might sometimes suggest that this was not worth while, but it paid in the long run. One poor bloom in a case would lower the whole value of that case.

With the present adequate supplies of materials, there was no excuse for bad presentation. For lining cases, greaseproof paper was the best type to use. He was against the use of coloured paper because it detracted from the colour of the blooms.

During the discussion, Mr. Maher gave a good tip on sending cases to market in hot weather. If the day before, they were soaked thoroughly with water, the blooms would travel better, he declared.

Welsh Nursery Visit

Rhyl members of the NFU who visited Messrs. E. Welles and Son's Gwyrch Gardens, Abergele last week inspected extensive gardens under the guidance of Mr. D. E. Guild, the manager. They saw much of interest in this well-equipped and well-stocked nursery, and saw also a demonstration of the latest horticultural machinery staged by Messrs. Burgess of Denbigh.

Eliminates Drip

A new Dutch-light bracket, used for the erection of Dutch-light structures, has the advantage that all drip is eliminated, claim the makers, Messrs. Universal Clamps, 21, River Gardens, Carshalton, Surrey.

Known as the Non-Drip bracket, it is cast in aluminium and is light and easy to handle and of great strength. Price for the erection of a structure 75 ft. by 10 ft. by 6 in., is £9 15s. The bracket is made for two thicknesses of lights, 1½ in. and 2 in.

Studying The Evesham Method

Pembrokeshire Growers Impressed By Advantages Of Central Packing And Co-operative Marketing

PEMBROKESHIRE growers recently went by motor coach to Evesham and Gloucestershire in search of knowledge. It was a three-day tour arranged on behalf of the N.A.A.S. by Mr. P. D. Lees, County Horticultural Advisory Officer, and proved an excellent opportunity to study real market-gardening, on small and large scales in old and well-established horticultural areas.

On the way out the party visited Cardiff to see the Fruit, Flowers and Vegetables Market. Comparison was made between the quality and packs of home and foreign produce. After lunch the party set off for Evesham via Gloucester and Cheltenham.

Evesham blossomed well to the delight of the visitors who, after tea, walked through some small market gardens, examined the crops and discussed cultural methods and the possible application of them in Pembrokeshire.

The second day also was full of interest. Pershore Co-operative Market was humming when the coach drew up, and a warm welcome was extended to the tourists by the market manager, who also explained the set-up of the market and by so doing, gave the party much food for thought. To see horticultural produce auctioned was a revelation to many.

Capt. Bomford received the travellers at one of his 300 acres farms. Overhead irri-

gation, Dutch lights, glasshouses, hops, intensive production of outdoor crops, pigs and poultry were all of great interest, and the visit was of immense value and will undoubtedly help Pembrokeshire farmers as they strive to develop horticulture there. Glasshouse, soft fruit and mixed vegetable holdings were visited in turn and each contributed education to the tour. An asparagus specialist generously gave asparagus seed and roots, and these may be the beginning of commercial asparagus production in Wales.

To wind up the Evesham visit, the coach encircled the area, giving the tourists a fairly general picture of horticultural production in the area. A flying visit was paid to Broadway, and the Cotswold Hills.

The third day opened with brilliant sunshine and the party travelled to Tewkesbury and thence to the English Land Settlement Association Estate at Newent, Glos. This gave a further opportunity to study extensive production of vegetables and soft fruit. The advantages of central packing and co-operative marketing were outstandingly obvious and the Welsh growers expressed the view that something of a similar nature was long overdue in Pembrokeshire. The homeward journey was made via Ross and Abergavenny, enlivened by the pleasing little ceremony at Brecon, to which reference is made under " . . . People " elsewhere in this issue.

FLOWER CORNER

The Helianthus Or Small Sunflower

By W. E. Shewell-Cooper, M.B.E., N.D.H., F.L.S.

ALL members of the Compositae family are popular on the market—there is something about an open eye with well placed florets around which attracts, and the helianthus falls definitely into this group. Good specimens early on the market sell well. In addition they are not difficult to grow and production costs are low.

The plants are related to the Jerusalem Artichoke which flowered in many gardens last year. Some of the species are too tall for the market and we have found that Loddon Gold and Miss Mellish are probably the two most popular varieties. The former bears large double golden flowers and grows to a height of six feet, the latter has semi-double light orange yellow flowers and is seen at its best in August. Latterly, Daniel Dewar, a variety with bright yellow flowers and a dark centre, has made its appearance in a number of markets with success.

Fortunately, the helianthus will grow in almost any soil. In fact, the poorest piece of land on the farm could be used if desired. It is better, however, for the cut flower trade to carry out normal cultivations when preparing the land and to choose a sunny situation. Compost is usually incorporated at the rate of 10 tons to the acre so as to provide some moisture holding material. This is a plant that soon exhausts the soil and some growers in consequence have found it advisable to apply a good fish fertiliser along the rows each autumn the moment the stems are cut down almost to ground level.

The custom is to grow the plants naturally and not to carry out any disbudding. There might be a special local demand for dis-

budded specimens and the keen flower grower should look out for this. Normally, the flowers are made up into bunches with the stems cut as long as possible, commensurate with ease of packing. In the south 18 stems are usually placed in a bunch but in the north 12 will do.

Never leave the beds down longer than three years because the roots exhaust the soil quickly. Sunflower growers replant every two years and thus ensure the finest blooms. Division of roots is an easy method of propagation and this should be done either in the autumn or spring. Root cuttings are sometimes taken, these being inserted into sandy soil in frames during the month of February; the cuttings should be placed about four inches deep, care being taken to insert them the right way up! When preparing the cuttings, always cut the tops square and the base of the cutting pointed.

Because the plants grow tall, a two feet square scheme seems ideal when setting helianthus out in rows. Some flower growers prefer two feet between the rows and 18 in. in the rows, the idea being to keep the beds as compact as possible so as to be able to adopt some simple method of staking for they are liable to be damaged by winds. A good general plan is to drive strong stakes into the corners of the beds and attach wires at a height of 4ft. 9 in. or 5 ft. tightly between them. The strings can then be stretched between the wires so as to form a criss-cross pattern through which the stems of the flowers can grow.

Generally speaking, the helianthus will be available as a cut flower during the months of August and September.

TO THE EDITOR

Mr. Haarer Forgot The Earthworm

I READ the article by A. E. Haarer on "Composting and Sawdust" (20/4/50) with great interest. May I venture to suggest that Mr. Haarer has overlooked one of the most important of the agencies through which fertility can be imparted to, and maintained in the soil? I refer to the earthworm.

Mr. Haarer writes: "Everyone is becoming convinced that a rich micro-flora and fauna in the soil coincides with fertility, crumb texture, health of plant growth and a richer feeding value in the produce harvested." And, again, "If we lack farmyard manure, then a sufficiency of compost must be the aim to supply humus, to enrich the micro-flora, to make the soil that crumbled medium which is so desirable, where nutrients are manufactured from the air and dissolved out of the soil particles."

The humble earthworm supplies most of these desiderata. To take them in order: 1. "... a rich micro-flora and fauna..."—Earthworm castings contain a much larger bacterial population than the unworked soil from which they are made. The weight of castings per acre, by normal earthworm population, may be 16,000 pounds per annum.

In Better Condition

2. "... crumb texture..."—Soil in which earthworms are active is invariably in better physical condition than soil in which earthworms are absent. As long ago as 1777 Gilbert White wrote: "Worms seem to be the great promoters of vegetation, which would proceed but lamely without them, by boring, perforating and loosening the soil and rendering it pervious to rains and the fibres of plants... the earth without worms would soon become cold, hard-bound and void of fermentation and consequently sterile."

Charles Darwin, writing in 1881, after many years study of earthworms, said: "Worms prepare the ground in an excellent manner for the growth of fibrous-rooted plants and for seedlings of all kinds. They periodically expose the mound to the air and sift it so that no stones larger than the particles which they can swallow are left in it."

3. "... health of plant growth..."—This is difficult to measure quantitatively, but an American earthworm culturist, Thomas J. Barrett, cites the case of a farmer increasing his corn crop from 80 to 196 bushels per acre, and of an orange grower increasing his orchard output from 300 to 630 boxes per acre per annum through adoption of earthworm culture. Experiments are now preceding, I understand, at Rothamsted, with a view to scientific evaluation of earthworm activity on plant growth generally.

4. "... a richer feeding value in the produce harvested..."—Healthier plant growth, indicated by heavier crops, probably results in richer feeding values. Certainly earthworm activity gives heavier crops.

5. "... a sufficiency of compost must be the aim to supply humus..."—Compost will supply humus, through the action of microbes. Earthworms will accelerate enormously production of humus.

To quote Darwin again: "The bones of dead animals, the harder parts of insects, the shells of land molluscs, leaves, twigs, etc., are before long all buried beneath the accumulated castings of worms, and are thus

brought to a more or less decayed state within the reach of the roots of plants... The leaves which are dragged into the burrows as food, after being torn into the finest shreds, partially digested and saturated with the intestinal and urinary secretions, are commingled with much earth. This earth forms the dark coloured, rich humus which almost everywhere covers the surface of the land with a fairly well defined layer or mantle."

6. "... to make the soil that crumbled medium which is so desirable..."—Earthworms are largely responsible for this desideratum. Once more to quote Darwin: "... It is a marvellous reflection that the whole of the superficial mould... has passed and will again pass, every few years,

through the bodies of worms." And what benefits derive from this passage through earthworms? Analysis shows that worms, by mixing earth and plant material in their digestive tracts, produce a mixture of concentrated plant food material much richer than the surrounding soil. In addition, the worms themselves, when they die, add humus to the soil.

Worms live for many years. The man, then, who adds worms to his soil is adding something that will give all the desiderata enumerated by Mr. Haarer, and other benefits besides, and will continue to do so long after the effects of chemical fertilisers have been expended. Moreover, unlike fertilisers, earthworms have a high rate of natural increase. Their potentialities for fertility and plant growth are only now being realised, although pointed out and strongly advocated so many years ago by the authors I have quoted.

J. A. KEMP

Woodchurch,
Kent.

Insufficient Stress On Watering

AS a beginner at the "game of chance" called Horticulture I would like to congratulate Mr. Hitchens on his article on watering tomatoes in the *Fruit-Grower* of April 13.

I should like to say that to my mind insufficient stress is laid on the problem of watering in general. On my light soil it is an ever-present problem whether to water lettuce in cold frames or not, and if so when. Usually the soil does not hold sufficient moisture to carry the crop through, and a mild, dry spell in March is very welcome so that I can water them.

Similarly in the glasshouse, I am never sure whether most pots want water or not.

Some are definitely dry or wet but the intermediates are always a problem.

I have found this year that tomatoes in soil blocks can stand more water applied to them than those in pots. The test cannot be conclusive, of course, but I've given my tomatoes, in a cold house, rather more water than usual and those in blocks have thrived while those in pots have not, on the whole, got on so well.

Could this have something to do with the air being more readily accessible to the roots in the case of the soil blocks?

C. H. G. WARD,

54, Trinity Road,
Ware, Herts.

Spray Information Too Localised

IN your issue of April 20 Mr. E. N. Pinks has raised a suggestion of great potential value to all growers who habitually protect their crops by spraying. I was told several years ago by a Dutch research worker that careful leaf-counts of red-spider were made throughout the season in Holland and on these counts fruit farmers were advised of the correct time to spray lime-sulphur.

But it was emphasised that the service was a purely local one, even in such a small country as Holland. It will be seen, therefore, that the establishment of such a service in this country would involve considerable labour and it is very doubtful if the N.A.A.S. has sufficient staff to carry it out. The notes on current insect pests made by Dr. Massee must be very useful to Kent growers, but they cannot be of such usefulness to growers in the West Country and elsewhere in Britain because to the latter the news may be too early or too late.

The easiest way to disseminate such local information is obviously by radio, and the regional stations could possibly devote a few minutes for such special announcements whenever necessary.

It is worth emphasising that this service would deal essentially with migratory pests and diseases. The bulk of these are wind-borne, even with some of the stronger-flying insect pests. For instance, blackcurrants which have not been sprayed with tar-oil will probably by now be heavily infested with aphids which have hatched from the winter

eggs. But the migratory winged phase of blackcurrant aphid will not become dangerous until late May or June, and it is for this sort of danger that an advisory service would be most useful. For summer spraying, timing is the essence of success.

Even if the desirable service of precise information were not possible at this time, perhaps many farmers would welcome such announcements as "Mr. X, the area entomologist saw a field of broccoli on July 20 at Much Binding badly attacked by caterpillars of the Cabbage Butterfly. This pest can be controlled by... etc., etc."

P. BRACEY

Nomansland,
Salisbury.

Thanks To Show Society

AS one who has recently found himself actively associated with the work of the N.F.U. Show Society, I would like to express my admiration of their efforts to publicise horticultural produce. The Watercress Branch of the N.F.U. received a month of exhibition at Olympia recently, and during that time thousands of visitors learnt something about watercress they never knew before. Now they realise that good cress is available, and will see to it that they get it in future.

The public are the ones who should be educated to the quality of British produce, and once they are convinced, the retailer will be forced to follow suit.

At N.F.U. headquarters the members of

Any Offers?

WE are two Dutch boys and we want to work in England this summer for six weeks from about 20 July-30 August. We are eighteen years of age and we are studying at the horticultural college in Utrecht. Our teacher tried already to find a fruit- or vegetable-grower for us, but he did not succeed and so we will ask you if you know perhaps one for us.

We want to work near London on a fruit- or vegetable growery. Messrs, we hope you will succeed in finding one for us, and we shall be pleased to hear soon of you. We hope you can read this letter for we are writing only "school-English," and that is not so very good after all.

A. DAS & H. ZIBLÉMAN.

Leliestraat 2,
Utrecht, Holland.

the Show Society committee have at heart the future of the British grower, and they are a body of men experienced in the art of showing produce to its best advantage, while knowing all about the produce with which they are concerned.

Like the Watercress Branch, many other sections of the industry can reap tremendous benefit from their efforts, but first they must have money. They need the money to give the growers' produce good publicity, and it is only fair that it should be the growers' money.

Once the guinea subscription is paid, all that remains is to grow, pack and send produce in the best possible way, so as to bear out the claims the Show Society is making.

T. W. JESY.

Bere Regis,
Dorset.

Passing Conversation

BELOW I give a conversation, overhead, of which your recent article on containers reminded me.

"That's how produce should be packed!"

"Yes, it's imported."

"Why doesn't the home producer pack like that?"

"He can't get the wooden containers."

"Why not?"

"The Government cannot, apparently, find the necessary exchange to import soft timber for containers."

"Does the foreign producer, then, give the wooden containers in which his produce is packed free?"

"No, its cost is added to the produce it contains."

"Are you telling me it is possible to import soft timber in the form of a container if it is filled with foreign produce, but impossible to do so if it is to be used to pack home produce?"

The only answer was a shrug of the shoulders.

A. S. LEWIS.

Danecroft,
Stowmarket.

Featherbed Townsmen

WHEN the President of the N.F.U. interviews Mr. Webb and the latter afterwards confirms the exchanges, as reported in your issue of 20/4/50, the nett result, with great respect, is largely wind because the basic fact of the whole sorry and tactless "featherbedding" gall of Mr. Evans' is not mentioned.

The simple facts are that it is the general

public and not the farmers who are being "featherbedded." The only reason farmers have been getting so called subsidies is so that food may be made available to the general public below its economic price.

It may or may not be desirable to keep food prices at an uneconomic low level. If, however, for reasons of high policy it is considered desirable, why throw dirt at the farmers? Why not admit the simple self evident fact and make it clear, that the difference between the price at which food can be economically produced and that at which the Government wishes to sell it to the general public, when the latter is lower, must be given to the producer otherwise he can't produce.

Certain forms of subsidy are open to the criticism that they fail to obtain the desired result with certainty. Thus to subsidise

ploughing is unwise because although most farmers will follow ploughing by the production of a good crop the slothful ones could take the ploughing subsidy without regard to the resultant crop. If there must be subsidies, and I by no means agree with this without many reservations, then they should at least be placed squarely upon the resultant required crop, thereby at least encouraging good husbandry.

It is, I think, very much open to doubt whether it is desirable to subsidise production in order that townsmen, who are in the majority, should be "featherbedded" against economic prices, and it is diabolical having done this very thing that it should be made to appear that it is the farmer who is being cosseted.

E. C. WINKLEY.

Hittisleigh, Exeter.

WEST COUNTRY STRAWBERRY PROSPECTS

ALTHOUGH there is up to a ten per cent. increase in the acreage devoted to strawberries in the West Country this year leading growers suggest that the crop is nevertheless not likely to be larger than the exceptional one of last year, and it is probable that it may be a little later than usual.

This is what the chairman of the Tamar Valley Growers' Association, Mr. H. W. Sherrell, of Bere Alton, says about it: "The crop seems in good form, despite the recent cold spell. Damage has been negligible, but the indications are that it will be a late season. Picking usually takes place in May, but will probably not be possible till early June, although growers with straw-

berries under cloches may be able to pick within a fortnight.

"There is no evidence at the moment of any great amount of the red core disease, but that usually becomes more apparent as the crop nears fruition. The increased acreage does not necessarily mean an increased crop and I expect production locally to be on a similar scale to last year, though next year's crop may be heavier."

The fruit is doing well, despite recent hard weather, it was reported at the experimental station of the Devon County Council. Among varieties, Western Queen was well forward, Climax was in blossom, and one of the Cambridge varieties was showing similar progress.

CAMBRIDGESHIRE GROWERS VISIT BADSEY

A VISIT of Cambridgeshire growers to Littleton and Badsey Growers Ltd, near Evesham organised by Mr. L. H. Herring, Cambs N.F.U. Horticultural Secretary, was well supported by growers in the area.

The party met a variety of weathers on the journey, bright sunshine at Cambridge giving way to sleet and snow at Northampton, and showers and bright intervals at Evesham.

On arrival at Littleton, the growers were met by Mr. C. A. Binyon who showed them the premises and gave a brief outline of the

history of the Association. Packing sheds, drying plants, implements and fertiliser stores were inspected and, at the end of the tour, the thanks of the party was expressed by Mr. E. J. Walkling.

Returning via Broadway, the Cotswolds, and Chipping Norton, the party was able to compare the type of horticulture in the Evesham area with that in West Cambs, which it resembles slightly. In spite of the weather, all agreed it had been an interesting and enjoyable outing.

TRADE SHOW TO BE HELD NEAR WOLVERHAMPTON

AN ambitious glasshouse demonstration and exhibition to put before growers the many improvements in designs during the past few years has been arranged by Mr. C. D. Dempster, the Staffordshire Horticultural Officer. It is to take place at Messrs. Bakers' Codsall Nursery, near Wolverhampton, on May 18.

Exhibits of actual and model glasshouses, Dutch-light houses, several types of cloche frames, cloches, boilers, aluminium-alloy heating pipes, electrical equipment for lighting, soil and air heating, air compressors, trolleys, irrigation equipment, hot-air stoves, and a complete range of insecticides, fungicides, aerosols, etc., will be on view.

A special section will be devoted to electric and petrol pumps, and demonstrations will take place in the morning of machinery for cultivation, soil shredding and mixing, soil block making, and the use of planting tools. Apparatus for soil sterilising and for warm water treatment, as well as boiler heating units using oil and automatic stokers for solid fuel, will also be in evidence.

Nearly all the leading glasshouse firms, and machinery manufacturers in the country

will be represented, it is said, and Messrs. Bakers' Nurseries Ltd. have agreed to show their nurseries and offices to visitors.

Warning To Essex

Essex growers received a timely warning last week in the form of a letter from their County Horticultural Officer, Mr. R. A. Engledow. In it he told them that adult cabbage root flies made their first appearance in Essex on April 20 and could be expected to commence egg laying during the first warm spell.

Mr. Engledow went on to suggest a method of control, recommending a four per cent. calomel dust application on the soil round the stems of brassica plants. Control depends on applying the dust in such a way that it is confined to an area of an inch round the stems.

Treatment with B.H.C. dust is sometimes found satisfactory, but growers are warned in the letter of the possibility of tainting root crops grown on the same land in the next two or three years.

— ON TOUR —

From District To District With Our Observers

Isle Of Man

Backward Spring—Vegetables Plentiful—Bush Fruit Promising

RAMSEY.

THOUGH there has been a fair amount of sunshine this month the nights are too cold to give young stuff a chance of jumping ahead, and altogether it is proving a backward spring. Most crops were much farther forward at the corresponding date last year, but it is not altogether a bad thing for nature to place a retarding hand on too lush growth at this time of the year, for that all too frequently leads to early gluts. There has been an abundance of rain ever since the year came in and Manx market gardeners have not been plagued this year with those devastating early spring droughts, which can do a lot of damage.

Early potatoes are through the ground in many places and seem to be going ahead quicker than most crops. They will be appreciated more than ever this year, for the island has been short of home grown maincrop potatoes and importation has been going on for several weeks.

Spring cabbage and broccoli are in good supply and meeting with a ready demand in the shops; and there is also steady trade for salad crops of all kinds. Lettuce are now of better quality, and there are good supplies of radishes and onions. There are still a few leaks about and swedes have lasted well, so altogether there is still a fairly good variety of vegetables on the market.

Planting and sowing is the order of the day in market gardens while the weather is suitable, and rooted chrysanthus, gladioli and other cut flower crops are all calling for attention day by day. The tomato planting season is over except for the rather few batches of outdoor tomatoes which are grown in the more sheltered places.

In the absence of any severe frost, rhubarb has made good growth and is readily saleable, most housewives having discovered by now that the sweetening medium need not present an insuperable difficulty if syrup is used. Bush fruit trees are promising well, and there is every likelihood of good crops of gooseberries and currants. Strawberries are just beginning to show an odd flower, and look like being a good crop, if all goes well.

Channel Islands

Weather Set-back—Potato Prices— Shipping

GUERNSEY.

A CHANGE in the weather which is anything but welcome set in about a week ago when the warm, sunny days gave way to grey skies and frosty nights which have been followed by high winds that have damaged pear blossom and flowering shrubs.

The frost had some effect on the early potatoes, though it was not general, and certain parts of Jersey felt it more than Guernsey. It is reported that more than four degrees were experienced in some places, and potatoes which had too advanced shoots at planting time and had made too rapid growth in the previous mild weather,

caught it worse than the more hardy plants.

The present cold winds are, however, doing actually more damage, as the potatoes are not growing, and as a result the crop will be light in those places which feel it most. On Jersey, the first plots are now cleared, and some growers already have set out thousands of tomatoes, taking a chance that the fine weather will return to us soon.

First loads of potatoes to pass over the Jersey weighbridge totalled 18 in two weeks, and buyers have already appeared there to snap them up. The earliest sold at £6 10s. per cwt., but this price had dropped by £1 in two days. The advantage of grading and packing in barrels is thus being felt, as these prices were for ware, the mids fetching about £2 per cwt. less. If sufficient rain falls soon to swell the potatoes without being heavy enough to bring blight to the plants, the crop should be a good one.

On Guernsey, despite the cold and inclement weather, the tomato crop is coming on rapidly, and already shipments are regulated to three days weekly by the local Committee for Horticulture. A conference between the latter and the G.G.A. with British Railways has been held to make shipping arrangements for the Guernsey crop, which will, of course, again be exported in bulk.

Recent important visitors to this island have been Dr. H. H. Hulme, of Florida, and Prof. Waterhouse, of Sydney, Australia, with Mr. P. M. Parthemore, of Pennsylvania, U.S.A. The two former are specialists in the classification of camellias and travelled to Guernsey especially to inspect the comprehensive collection, including many unique specimens of the older types growing at the Caledonia Nurseries.

The visitors spent three days with the proprietors, Messrs. H. L. and J. de Putron in an intensive study of the collection, which they stated was the finest they had ever seen, and many photographs were taken by Mr. Parthemore, who is an expert in the photographing of flowers.

Somerset

Bad Weather—Sprays Late Vegetables Scarce

SOUTH PETERBERTON.

GROWERS who are superstitious about fogs in March and frosts in May will be having an anxious time for the next few weeks as we had more than our usual share of March fogs this year. These were often accompanied by white frosts and followed by cold, northerly winds and a general shortage of rainfall. Light showers occurred from time to time but these were not sufficient to help newly sown seeds or late planted trees and cuttings until, on April 17, we had a thunderstorm followed by good, soaking rain. On April 16 a frost of 7 deg. damaged some of the Bramley blossom, then in the "pink bud" stage, but not enough to have any effect on the crop. A little damage is reported to plums, but pears, which were also in full bloom, seem to have escaped.

As far as one can judge at present, there are prospects of good crops of top and bush fruits although, in the case of some dessert apples such as Cox's and Superbs, it is too

early to judge yet, as a number of their buds are late in developing—a fact which may be attributed to the cold winds and late petroleum spray. Most of the biennial bearers are showing plenty of fruit buds but as usual some individual trees and branches are devoid of any.

Although plums and pears are not grown in any large quantity in our district, those I have seen do well, and this year have an exceptional amount of blossom. Since there is a keen demand locally for these fruits, it is surprising more are not planted.

Blackcurrants made rather shorter wood growth last season on account of the prolonged drought and heavy crop but they are so thickly covered with flower trusses now that it seems likely that they will make up for the slightly reduced fruiting area. Hundreds of bumble bees—sometimes three to a bush—are working the flowers, almost regardless of weather conditions, throughout the long hours of daylight. It is to be hoped that no modern sprays will ever endanger the stocks of these valuable, natural allies.

Hopes of a fine period for the petroleum spray to kill the rather numerous red-spider eggs did not materialise; the continuous winds and cold showers made it necessary sometimes to continue spraying under unsuitable conditions in order to get the operation completed before the buds got too far advanced. Much the same trouble occurred during the "green-cluster" lime-sulphur spray.

Vegetables still remain scarce as locally grown broccoli were a poor crop, with small heads, and spring cabbage are disappointing. Many of the earliest of these began to bolt when the rain came while others received such a check during the cold, dry spell that they are only just beginning to turn in and will be small.

Hampshire

Trusses Setting—Vegetables Position— Larger Lettuces

CHANDLER'S FORD.

THE weather has been very variable and there have been many dull days with poor light. The soil is tending to dry out, and much rain is now needed.

Some of the more enterprising growers of early tomatoes have the first two trusses well set, but there is much variation in the condition and growth of glasshouse tomatoes this season owing to the inferior light that has been prevalent for the past three months. There will be much need for skill and experience to produce a first-class crop and obtain an economic return.

Several crops planted in soils that have been steam sterilised normally show traces of nitrogen excess, but in this winter of dull light and humidity an excessive soft texture is in evidence, and unless more skill in practical principles is exercised, poor results and yields will occur.

Glasshouse lettuce has been marketed in good quality and condition, and at reasonable prices, and satisfactory crops of the May Queen type are now being cut from dutch lights. Apparently consumers now demand a larger type of hearted lettuce than the various strains of "Gotte Forcer," and the larger-hearted forms now coming from overseas will create a greater demand for larger hearted kinds even if these are of poorer quality. In spite of lower returns from outdoor winter lettuce during the past two years, the acreage has not diminished. The condition of the crop is now very progressive and has been so practically throughout the growing season. The variety mostly favoured is Winter Crop.

THE MARCH IMPORT FIGURES

With Quantities And Values For The Previous Two Years

FRESH FRUIT AND VEGETABLES	QUANTITIES						VALUE					
	Month ended March 31			Three months ended March 31			Month ended March 31			Three months ended March 31		
	1948	1949	1950	1948	1949	1950	1948	1949	1950	1948	1949	1950
Fruit, fresh or raw—												
Apples—							£	£	£	£	£	£
From Australia ... Cwt.	—	—	—	—	—	—	—	—	—	—	—	—
.. New Zealand	—	—	—	—	—	—	—	—	—	—	—	—
.. Canada	—	—	117,513	—	—	400,233	—	—	222,590	2	—	609,640
.. Other Commonwealth Countries and the Irish Republic	70	14	19	70	14	20	300	34	100	307	34	103
.. Belgium	91,312	—	—	147,143	45,075	—	181,841	—	—	287,183	105,159	—
.. Other Foreign Countries	334	—	123,657	5,242	301,602	412,484	605	—	252,693	9,979	651,713	805,872
Total	91,716	14	241,189	152,455	346,691	812,737	182,746	34	475,383	297,471	756,906	1,415,615
Apricots	—	—	—	1,666	10,348	10,812	—	—	—	14,048	86,925	81,544
Bilberries	—	—	20	—	—	266	—	—	98	—	—	1,746
Cherries	—	—	—	—	—	—	—	—	—	—	—	—
Grapes—												
From Union of South Africa	106,079	116,268	164,891	132,921	132,858	184,096	966,214	957,116	1,357,394	1,210,852	1,093,716	1,499,686
.. Other Commonwealth Countries and the Irish Republic	—	—	—	3	10	—	—	—	—	51	140	2
.. Netherlands	—	41	15	749	4,722	2,199	—	620	112	10,294	47,891	18,193
.. Belgium	—	25	—	2,020	8,434	2,030	—	309	—	34,789	123,823	31,471
.. Spain	—	—	250	—	8,395	13,812	—	—	818	—	59,437	56,590
.. Italy	—	—	—	32	5	—	1	—	—	629	58	—
.. Greece	—	—	—	—	4,969	209	—	—	—	—	30,261	682
.. Other Foreign Countries	6	—	1,747	6	—	1,768	29	—	15,690	29	—	16,010
Total	106,085	116,334	166,903	135,731	159,393	204,114	966,244	958,045	1,374,014	1,256,644	1,355,326	1,622,634
Melons	—	160	1,125	—	3,221	1,132	—	498	3,986	—	9,800	4,011
Pears—												
From Union of South Africa	103,735	63,708	137,380	151,269	112,036	152,841	338,850	250,827	676,724	486,657	422,763	734,512
.. Australia	—	1,922	25,651	—	1,922	27,483	—	6,586	91,826	—	6,586	98,476
.. Other Commonwealth Countries and the Irish Republic	—	—	—	—	—	—	—	—	—	—	1	—
.. Netherlands	2	—	3,361	4	—	49,878	3	—	11,015	9	—	185,801
.. Italy	1	492	12,532	4,847	930	69,980	3	1,525	31,689	16,225	3,151	168,825
.. Other Foreign Countries	—	—	16,792	232	6,510	19,984	—	—	73,948	812	18,813	83,646
Total	103,738	66,122	195,716	156,352	121,398	320,166	338,856	258,938	885,202	503,703	451,314	1,271,260
Plums, green gages and damsons	1,054	3,494	11,911	38,458	39,149	39,306	8,880	22,839	70,041	323,909	252,356	218,744
Strawberries	3	1	—	3	1	3	143	106	40	143	115	75
All other descriptions	17	1	4,823	2,094	1,416	11,560	159	2	25,134	6,075	5,049	66,754
Vegetables, fresh—												
Broccoli and cauliflowers	9,635	109,777	382,007	177,662	428,571	746,046	33,301	191,573	863,437	515,345	913,021	1,880,181
Carrots	147	3,358	27,355	140,650	3,360	30,387	526	12,363	111,851	137,518	12,374	124,265
Lettuce, endive and chicory (salad)	25,099	25,970	41,136	53,033	68,122	81,858	235,790	211,188	249,188	489,573	505,271	519,195
Onions—												
From Commonwealth Countries and the Irish Republic	5,035	20	83,665	33,428	41	94,953	6,126	12	154,583	40,138	33	173,830
.. Netherlands	1,511	329,705	90,825	125,154	734,046	386,068	2,784	222,482	221,831	178,046	515,497	817,418
.. Spain	12,137	28,871	22,019	195,347	199,506	260,192	14,670	37,286	45,652	232,314	281,097	458,334
.. Egypt	3,030	4,400	95,441	26,339	4,400	110,119	3,487	4,576	173,953	31,251	4,576	193,399
.. Other Foreign Countries	3,404	14,114	74,431	61,759	78,716	168,998	4,943	10,079	150,561	78,616	54,835	302,596
Total	25,117	377,110	366,381	442,027	1,016,709	1,020,330	32,010	274,435	746,580	560,365	856,038	1,945,577
Potatoes—												
New	196,945	126,626	204,920	315,454	137,092	283,224	422,607	364,285	570,004	741,193	403,051	789,369
Other than new, including seed	281,045	131,651	158,594	468,816	212,795	387,725	211,765	95,228	108,946	361,795	153,814	261,966
Tomatoes—												
From Channel Islands	—	20	47	49	48	66	—	433	1,013	263	619	1,173
.. Other Commonwealth Countries and the Irish Republic	1,505	7,674	8,520	1,637	11,280	14,949	3,905	29,397	29,497	4,360	40,944	52,091
.. Netherlands	—	—	150	10	95	549	—	—	425	29	614	1,741
.. Canary Islands	347,471	402,929	327,181	982,498	1,189,602	852,471	1,676,989	2,065,051	1,746,305	4,599,695	6,052,762	4,703,154
.. Other Foreign Countries	238	1,710	49	2,476	6,070	208	1,357	8,489	378	10,659	29,581	1,593
Total	349,214	412,333	335,947	986,670	1,207,095	868,243	1,682,251	2,103,370	1,777,618	4,615,006	6,124,520	4,759,752

MARKET INFORMATION

(Continued from previous page)

FLOWERS		Per	W/E	W/E	1949
			Apr. 29	Apr. 22	Equiv.
Anemones	..bch	0/8-1/0	—	0/6-0/8	—
Carnations	..doz	12/0-15/0	—	12/0-15/0	—
Daffodils	..doz	1/0-2/0	—	2/0	—
Gladioli	..6 spikes	1/6	—	2/0	—
Iris	.....6	3/6	—	1/0-2/0	—
Lilies	.....each	1/0	—	0/9-0/10	—
Lilac	.....10 sprays	7/6	—	—	—
Roses	.....each	0/8	—	0/6-0/10	—
Tulips	.....doz	1/3-1/6	—	—	—

Glasgow

FRUIT		Per	W/E	W/E	1949
			Apr. 29	Apr. 22	Equiv.
Grapes, S.A.	..lb	1/3	—	—	—
— Aust.	..lb	1/3	—	—	—
Grapefruit	..cwt	34/0-35/6	—	—	—
Pears, S.A.	..lb	1/3	—	1/3-1/4	—

VEGETABLES		Per	W/E	W/E	1949
					Equiv.
Beet	.....56lb	6/0-7/0	—	7/0-7/6	8/0
Cabbage	.....42lb	18/0-21/0	—	18/0-20/0	—
Cucumbers	.....each	1/6-1/9	—	1/6-2/0	2/3-2/6
Carrots, new	..lb	1/6	—	—	—
— old	.....	Control	—	—	—
Leeks	.....lb	0/3-0/4	—	0/3-0/4	—
Lettuce, Ditch	..24	14/0	—	13/0-14/0	—
— Home	.....doz	6/0-7/0	—	—	—
Mushrooms	.....lb	3/6-4/0	—	4/0-4/6	5/0-5/6
Parasnips	.....56lb	7/0-8/0	—	6/0-7/0	—
Rhubarb	.....lb	0/31	—	—	—
Tomatoes, L.P.	..28lb	36/0-44/0	—	—	—
— Grnsy.	.....lb	4/0-4/6	—	3/0-4/6	2/0-3/0

FLOWERS		Per	W/E	W/E	1949
					Equiv.
Aranus	.....12 blms	12/0-18/0	—	10/0-15/0	—
Anemones	.....12 blms	5/0-8/0	—	9/0-15/0	—
Bonwood	.....12 blms	9/0-12/0	—	9/0-12/0	—
Berberis	.....12 blms	18/0	—	12/0-18/0	—
Carnations	.....12 blms	8/0-10/0	—	10/3-12/0	—
Cheerfulness	.....12 blms	8/0-9/0	—	—	—
Cupressus	.....12 blms	10/0-12/0	—	9/0-12/0	—
Daffodils	.....12 blms	9/0-12/0	—	8/0-12/0	—
Fern	.....12 blms	9/0-18/0	—	12/0-30/0	—
Heath	.....12 blms	9/0-12/0	—	12/0	—
Iris, Scotch	.....12 blms	24/0-30/0	—	36/0-42/0	—
— Eng.	.....12 blms	18/0	—	—	—
— Grnsy.	.....12 blms	15/0-18/0	—	—	—
Moss	.....bag	8/0-10/0	—	8/0-10/0	—
Polyanthus	.....12 blms	6/0-8/0	—	6/0-9/0	6/0-9/0
Wallflowers	.....12 blms	4/0-6/0	—	3/0-4/0	—
Tulips,indr.	.....12 blms	24/0-36/0	—	—	—

Edinburgh

FRUIT		Per	W/E	W/E	1949
			Apr. 29	Apr. 22	Equiv.
Apples, Bram.	..42lb	24/0-Control	—	15/0-Control	—
Grapes, S.A.	..10lb	Control	—	Control	—
Pears, S.A.	..lb	1/4-1/5	—	1/4-1/5	—
— Argent.	..lb	1/4-1/5	—	1/2-1/4	—

VEGETABLES		Per	W/E	W/E	1949
					Equiv.
Asparagus	.....chip	4/6-5/3	—	4/6-5/0	—
Beet, Long	.....cwt	16/0-18/0	—	14/0-16/0	—
— Round	.....cwt	14/0-16/0	—	10/0-14/0	—
Cabbage, Spring	.....42lb	18/0-20/0	—	—	—
Carrots, Imp.	..lb	1/4-1/6	—	1/6-1/7	—
Cauliflowers, Ital.	..18	28/0-30/0	—	26/0-27/6	—
Cucumbers, Dutch	..ea	1/8-1/10	—	1/8-2/0	—
Lettuce, Dutch	..24	11/0-14/0	—	12/0-16/0	—
— Scot.	.....doz	5/0-6/0	—	5/0-6/0	—
Leeks	.....lb	0/2-0/3	—	0/3-0/4	—
Mushrooms	.....lb	4/6-5/0	—	4/0-4/6	—
Onions, Levant	..cwt	34/0-36/0	—	—	—
— New Imp.	.....cwt	64/0-68/0	—	—	—
Parsley	.....lb	0/9	—	0/9	—
Peas	.....lb	0/11-1/1	—	—	—
Potatoes	.....	Control	—	Control	—
— New Imp.	..lb	0/7-0/8	—	0/7-0/8 1/2	—
Radishes	.....bch	0/5-0/6	—	—	—
Rhubarb	.....lb	0/2-0/2 1/2	—	0/3-0/4	—
Swedes	.....cwt	5/0-5/6	—	5/0-6/0	—
Tom., Guern.	..lb	2/6-4/6	—	2/6-4/6	—
— Canary	.....boat	35/0-38/0	—	32/0-40/0	—
— tray	.....tray	15/0-18/0	—	20/0-22/0	—
— Dutch	.....lb	4/2-4/6	—	—	—
Turnips	.....cwt	5/0-5/6	—	5/0-6/0	—
— New Imp.	.....lb	1/6-1/7	—	—	—

FLOWERS		Per	W/E	W/E	1949
					Equiv.
Anemones	.....bch	0/4-0/8	—	0/3-0/6	—
Carnations	.....ea	1/3-1/6	—	—	—
Cheerfulness	.....bch	0/6-0/8	—	0/6-0/9	—
Daffodils	.....12	0/9-1/6	—	—	—
Iris	.....6	1/0-1/6	—	2/6	—
Fern	.....bch	3/6	—	3/6	—
Lily-of-Valley	.....bch	0/9-1/0	—	—	—
Tulips	.....12	1/0-1/6	—	1/0-1/6	—
Violets	.....bch	0/3-0/4	—	0/4	—

Evesham Central

VEGETABLES		Per	W/E	W/E	1949
			Apr. 29	Apr. 22	Equiv.
Asparagus	.....100	12/0-20/0	—	7/0-10/0	—
Broccoli	.....crate	9/0-13/6	—	9/0-18/0	2/6-5/6
Cabbage	.....crate	25/0-28/6	—	22/0-25/6	2/0-5/3
Carrots	.....12 bchs	2/6-3/0	—	2/0-4/0	—
Leeks	.....56lb	7/0-11/0	—	6/0-11/6	—

VEGETABLES		Per	W/E	W/E	1949
			Apr. 29	Apr. 22	Equiv.
Lettuce, Best	.....doz	4/0-7/6	—	5/0-9/0	2/0-5/9
— Medium	.....doz	1/6-3/6	—	1/0-4/6	—
Onions, green	.....lb	0/31-0/5 1/2	—	0/31-0/7 1/2	0/1
Parsley	.....10 lb	3/6-5/0	—	1/6-3/0	1/0-1/6
Radishes, F.B.	..12 bchs	1/0-2/0	—	1/6-3/6	0/9-3/3
Rhubarb	.....lb	0/11-0/7 1/2	—	0/1-0/7 1/2	0/21-0/4 1/2
Sage	.....12 bchs	1/0	—	—	1/3-1/9
Spinach	.....10 lb	4/6-7/0	—	1/0-4/0	—

FLOWERS		Per	W/E	W/E	1949
					Equiv.
Wallflowers	.....12 bchs	1/6-3/6	—	1/9-3/6	—
Narcissi	.....12 bchs	12/0-14/0	—	3/0-9/6	7/0-7/3

Evesham Smithfield

VEGETABLES		Per	W/E	W/E	1949
			Apr. 29	Apr. 22	Equiv.
Asparagus	.....100	10/0-15/6	—	21/0	12/0-15/0
—	.....50	6/4-9/6	—	—	3/6-6/6
Broccoli	.....doz	3/0-15/0	—	9/0-21/0	4/0-8/0
Cabbage	.....crate	20/6-29/0	—	24/0-29/0	2/6-5/0
Leeks	.....crate	8/0-15/6	—	9/0-13/6	2/6
Lettuce	.....doz	1/0-6/0	—	1/0-6/0	1/0-4/0
Mint	.....12 bchs	3/0	—	—	—
Onions, green	.....lb	0/3-0/6	—	0/4-0/7 1/2	0/1
Parsley	.....10lb	2/3-3/0	—	1/0-3/0	0/6-1/0
Radishes, F.B.	..20 bchs	15/0-40/0	—	—	—
Rhubarb	.....lb	0/2-0/3 1/2	—	0/21-0/3 1/2	0/21-0/3 1/2
Sage	.....12 bchs	0/6	—	—	1/9-2/0
Spinach	.....box	2/9-3/9	—	2/7-3/0	—

FLOWERS		Per	W/E	W/E	1949
					Equiv.
Wallflowers	.....12 bchs	1/5-3/3	—	1/3-3/6	—
Narcissi	.....12 bchs	6/9-9/6	—	6/0-8/6	5/0-6/0

Hereford

VEGETABLES		Per	W/E	W/E	1949
			Apr. 29	Apr. 22	Equiv.
Cauliflower	.....lb	0/5-0/8	—	0/5-0/7	—
—	.....each	0/8-1/6	—	—	—
Carrots	.....12 bchs	6/0	—	—	—
Cabbage, Spring	..lb	0/81-0/10	—	0/11-0/8	—
Lettuce	.....doz	1/6-8/0	—	2/0-8/0	1/0-5/0
Onions, Spring	..12 bchs	2/0-3/6	—	—	—
Radishes	.....12 bchs	2/6-4/6	—	—	—

Pershore Central

VEGETABLES		Per	W/E	W/E	1949
			Apr. 29	Apr. 22	Equiv.
Broccoli	.....crate	9/0-15/0	—	9/0-12/0	3/0-4/6
Cabbage	.....crate	26/6-29/6	—	15/0-25/0	3/0-4/1
Leeks	.....cwt	16/0-26/0	—	15/0	4/0
Lettuce	.....box	1/0-3/10	—	3/0-5/0	—
Onions, Spring	..lb	0/1-0/3	—	0/3-0/6	—
Parsley	.....20lb	8/0-10/0	—	12/0	—
Radishes	.....score	10/0-22/0	—	20/0-35/0	4/9-5/0
Rhubarb	.....lb	0/1-0/2	—	0/2-0/5	0/3-0/4

Pershore Co-operative

VEGETABLES		Per	W/E	W/E	1949
			Apr. 29	Apr. 22	Equiv.
Asparagus	.....100	12/0-16/0	—	12/0-14/0	—
Broccoli	.....crate	12/0-14/0	—	14/0-16/0	3/0-4/0
Cabbage	.....crate	27/0-29/0	—	—	2/6-3/6
Leeks	.....box	8/0-10/0	—	7/0-9/0	—
Lettuce	.....box	4/6-5/6	—	—	—
Mint	.....doz	1/0-1/6	—	1/0-2/0	2/0-3/0
Parsley	.....10lb	4/0-7/0	—	3/0-8/0	1/0-1/6
Parasnips	.....cwt	15/0-25/0	—	19/0-25/0	—
Radishes	.....score	20/0-25/0	—	—	15/0-20/0
Rhubarb	.....lb	0/1-0/2	—	0/1-0/3	0/3-0/4
Spinach	.....box	1/0-2/6	—	2/0-4/0	—

Wisbech

VEGETABLES		Per	W/E	W/E	1949
			Apr. 29	Apr. 22	Equiv.
Potatoes:	.....	—	—	—	—
— K.E. Siltland	..ton	220/0	—	220/0	215/0
— Skirtland	..ton	215/0	—	215/0	210/0
— W.V. Siltland	..ton	200/0	—	200/0	195/0
— Skirtland	..ton	195/0	—	195/0	190/0

Official Averages

FRUIT		Per	W/E	W/E
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