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Fruit and Vegetables As an Adjunct to the Farm

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There are several noteworthy features in connection with potato cultivation. Everyone admits the superior cropping power of Scotch seed—we all buy a certain amount every year. But a good many of our potatoes are for the early market, and in this business earliness is at least of as great consequence as weight of crop. It is commonly held by the early growers that “once grown” seed gives a crop which is marketable earlier than that from Scotch seed. I believe this is true, though I have not established it experimentally. Certainly the seed sprouts much earlier.

Our method of growing earlies, involving a half splitting of the drills after farmyard manure has been carted in and marking of the furrows with a holing machine prior to planting, represents, I think, a recent local evolution—at any rate I have not seen the method elsewhere. As regards use of machinery in lifting, a census would probably show definite retrogression. I certainly know a good many farmers who own spinners, but will not use them.

A very interesting situation has developed in the past three years over manuring of earlies. We apply large quantities of artificials to the open drills before the sets are planted. Three years' trials at Reaseheath and at other centres in the county have all gone to show that no combination of artificials we can devise materially alters the yield in the early stages—indeed many dressings seem to check it, so for the time being we are rather in a quandary. I think the explanation lies in the manner of application. Of course considerable increases are obtainable in the case of crops lifted late in the season.

Sugar-beet has been tried over a fair area, but with labour and other costs approximating to those of potatoes, and maximum receipts in the region of £30 per acre, most farmers who have tried the crop in an experimental way incline to return to their earlier love. Certainly sugar-beet is not on the increase; only 152 acres were grown in Cheshire in 1927, and of this one-third in the purely dairy-farming area, around Nantwich.

FRUIT AND VEGETABLES AS AN ADJUNCT TO THE FARM

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THE association of the above crops seems to suggest either that fruit and vegetable growing has been adopted on the farms when the recent changes in husbandry took place, or that these crops are ripe for adoption when such changes are made. Past experience shows that a continuance of years economically bad to the grower

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is the greatest incentive to change, and, in consequence, the economic aspect must loom largely in any considerations of the subject. When studying the Blue book (Cmd. 2815, issued in 1927) of the *Agricultural Output of England and Wales, 1925*, the author was impressed with the statement that the total value of the agricultural output of England and Wales in 1925, which was estimated at £225,000,000, is equivalent to an average gross output of fully £8, 10s. per acre of the total area under crops and permanent grass, after making allowance for the rough grazing. As much feeding-stuff is imported, all the products are not, of course, entirely the output of the soil of this country alone. The figure of £8, 10s. per acre is then somewhat higher than the true figure. When it is further recalled that, on the average, the landlord's capital is £31 per acre and the tenant's capital is £14 per acre—with wages near 30s. per week per man—the figure of £8, 10s. gross output suggests that the present-day farmers and the landlord would have some difficulty in earning much return on the capital involved.

That being the case, it may repay study to see whether, by growing some special crops, the soil—perhaps by more intensive cultivation—could not be made to return a higher figure, for that is the side of the subject which specially attracts.

From the Blue book the following Table can be compiled :

| <i>Crop</i> | <i>Acreage</i> | <i>Total Value sold off Farm</i> | <i>Return per acre</i> |
|-----------------------------------|----------------|----------------------------------|------------------------|
| Wheat | 1,500,000 | £12,070,000 | £8 0 0 |
| Potatoes | 493,000 | 11,830,000 | 23 12 0 |
| Fruit ¹ | 274,989 | 9,720,000 | 35 7 0 |
| Vegetables ¹ | 185,437 | 8,400,000 | 45 6 0 |

The figures show that by growing wheat the value of the corn sold off the farm gives a return of £8 per acre, to which the value of the straw—perhaps another £1—should be added to give the true figure. By growing potatoes the return is a much higher average for the whole country. The figure was £23, 12s. By growing fruit (including all kinds) the average gross money return was as high as £35, 7s., and by growing vegetables the return reaches the very high level of £45, 6s. per acre. But fruit is a comprehensive term, and to get a clearer idea it is necessary to analyse each fruit crop in more detail. This is done most conveniently by compiling the facts together in the form of a Table, thus :

¹ Glass-house crops not included.

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| <i>Crop</i> | <i>Acreage</i> | <i>Value of Output</i> | <i>Value per acre</i> |
|---|---------------------|------------------------|-----------------------|
| Strawberries . . . | 29,300 | £1,410,000 | £48 0 0 |
| Black-currants . . . | 11,700 | 660,000 | 56 8 0 |
| Gooseberries . . . | 16,100 | 550,000 | 34 3 0 |
| | <i>No. of Trees</i> | | <i>Per Tree</i> |
| Apples: culinary and dessert | 12,102,000 | 3,750,000 | 0 6 2 |
| Apples: cider | 2,727,000 | 290,000 | 0 2 2 |
| Cherries | 741,000 | 1,130,000 | 1 10 0 |
| Plums | 5,105,000 | 1,180,000 | 0 4 7 |

The statistics for the tree fruits do not record the acreage, but give the number of trees. Cherry-trees, of which sixty to seventy are grown to the acre, yielded in 1925 the surprisingly high return of £1, 10s. per tree—which represents a very high acreage return. Both plums and apples are more thickly planted, and though the returns per tree are but 6s. 2d. for culinary and dessert apples and 4s. 7d. per tree for plums, the returns per acre would again be substantial.

The figures for the small fruits are easier to obtain, for acreage figures are given. Gooseberries give the smallest return, of £34, 3s. per acre. It should be remembered that gooseberries are frequently grown under the tree fruits, so that the true acreage return would be obtained by adding the two returns together. Strawberries—in a poor year—gave the small return of £48 per acre, whilst black-currants gave the very high return of £56, 8s. per acre. It seems, therefore, that the fruit crops are real money crops.

So much for fruit crops. Now as to the vegetable crops, the returns for which are given in the following Table :

| <i>Crop</i> | <i>Acreage</i> | <i>Value</i> | <i>Value per acre</i> |
|--|----------------|--------------|-----------------------|
| Green peas | 43,500 | £1,070,000 | £24 12 0 |
| Cabbages | 35,200 | 2,080,000 | 59 0 0 |
| Cauliflowers and broccoli | 18,100 | 1,680,000 | 93 0 0 |
| Brussels sprouts | 21,300 | 1,020,000 | 48 0 0 |

Of these the green-pea crop returns but £24, 12s. per acre, the cabbage crop £59 per acre, cauliflower and broccoli the high return of £93 per acre, and brussels sprouts but £48 per acre. In all cases these crops occupy the soil for much less than the year, and it is the practice to take more than one crop per year. For instance, the brussels sprouts usually follow the early potato crop—as also does the broccoli and spring cabbage. High though these figures are, they by no means express the real gross money return per acre secured by growing such crops.

The return per acre from the production of fruit and vegetables, although large, has not induced to any great extent the ordinary farmer to practise their cultivation, for their production is confined mainly to that class commonly known as "Fruit and Vegetable Growers." The official statistics (Cmd. 2815) state that the number of holdings in which half the area or more appeared to be devoted to these crops was 28,400, with a total area of 379,000 acres; as the total area of fruit and vegetables is but 470,426 acres, only a small area of these crops can exist on the farms proper.

Whilst fruit may be grown successfully in most soils, and in all parts of the country, its commercial production is limited to the areas where soil, aspect and climate are agreeable. These crops demand much attention if fruit of a marketable standard is to be obtained. The successful cultivation of market apples to-day demands an expenditure of at least £10 per acre in sprays, of which at least three must be made annually, apart from the cost of tillage, manuring and pruning. Harvesting, storage and marketing are operations which need much labour, and entail further expenditure. The production of soft fruits is even more extravagant of labour, whilst harvesting time is one of the greatest possible anxiety, for the ripening period is only too short.

In successful vegetable-growing the land has to be made fat with abundant manures, and constantly cultivated, often with hand labour. All this means much expense.

To engage in this type of business means the employment of more labour—incidentally paid at a rate somewhat higher than the ordinary rate for an agricultural worker, as the following figures for typical counties of England show: Somerset—a typical agricultural county—employs per 1000 acres 28.7 total workers; Kent and the Isle of Ely—typical fruit counties—employ 66.8 and 63.3 respectively; whilst Middlesex and London—typical vegetable counties—116.2 total workers per 1000 acres.

The author refrains on this occasion from giving figures for the cost of production of the fruit and vegetables for the reason stated—that they are considerably higher than for agricultural crops. In addition, the labour troubles are more numerous; the fight with insects, fungus and bird pests much greater; whilst the marketing problems are immensely more important and difficult than for farm crops.

Fruit crops can well be combined with farming, as the Kent growers have shown. Vegetable-growing is more difficult, for soils have to be made very rich indeed for vegetable culture, so that corn grown on them lodges badly.

However, the farmer who is prepared to accept these additional worries and financial burdens, coupled with the task of acquiring a capacity for marketing, has a distinct future with these new crops. The demand for them is increasing, and prices for most kinds show no tendency to fall.