

ON THE LAND

ELECTRICITY IN POULTRY-RAISING.

Experiments have lately been carried out on a poultry farm in the South of England, with such remarkable results that intensified chicken-rearing by means of electricity will undoubtedly be tried on a much larger scale in future. Seventy-five chickens were electrified on this particular farm, the current being applied for 10 minutes every hour during the day. Six chickens only, out of a total of 400, died, and the remainder were ready for the market in five weeks, as against three months normally. The electrified chickens grew at double the usual rate, thus doubling the output of the farm and halving the food bill per chicken. Not only, however, in regard to poultry-raising, but also in connection with the growing of crops is electricity proving invaluable, some remarkable results being cited by a writer in a recent publication, wherein he interestingly shows how electricity can be applied to home life as well as to commerce and business.

By an arrangement of wires, making a network about 15 feet above the ground, electricity is discharged into the soil. The result in one case was that in a certain wheat crop there was a gain in the number of bushels per acre from the electrified plot of 40 per cent. as against the unelectrified lot adjoining. Furthermore, it obtained 7½ per cent. better market prices, producing a better baking flour. The cost of the electricity worked out approximately at one penny per day.

Similar electrical treatment to growing crops produced 17 per cent. increase in cucumbers, 36 per cent. in strawberries, 33 per cent. in beet, 50 per cent. in carrots, and 18 per cent. in tomatoes, whilst other vegetables were also ready for market earlier than non-electrified.

A LESSON ON PRUNING.

A writer in the *Freeman's Journal* (Sydney) gives the following useful directions regarding the pruning of fruit trees:—

Young trees for the first few years require to be cut back rather hard. This not only prevents them from extending their main limbs too rapidly, with the liability of their being broken out by bearing on the ends, but it also ensures sufficient eyes to make strong shoots from which can be chosen, during the following spring and summer, the future leaders. Many varieties are liable to grow too upright, and it is a good policy to cut to a bud above the outside. The growth from the top bud will then cause the outside bud to grow out at a wider angle. When this system is adopted, it is necessary to check the growth from the top bud during the following spring and summer, otherwise there is a likelihood of the top bud getting ahead of and sapping the lower outside bud, which is the one required.

As this spring and summer treatment is necessary with young trees in any case, it is no drawback to the method recommended to have to go round the trees to cut back the growth from the top bud. The piece of wood with the check shoot above the desired leader is removed the following winter. Where numerous leaders have been thrown out during the previous growing period they should be thinned out. In young trees more are retained than in fully-formed trees, as they are required to multiply the main branches. In the older trees the full number of main branches has been attained, and only one leader is mostly required to each main branch. When choosing the leaders to be retained on upright growing trees, every opportunity should be taken to open out the head; but do not fall into the error made by some, of cutting away all growth from the lower parts of the limbs. An open centre means that no main limbs are growing up through the centre, but the object of such a form of tree is to induce and maintain the growth of spurs along the main branches of the tree or of laterals carrying spurs or fruit buds.

When trees on good deep soil have their main framework well established and the limbs are stout, and if they are still making numerous and vigorous leaders it is a good plan to thin the leaders out, but not to top them back for a season or two. This steadies their growth and lessens the work of pruning the following year, and will often throw a tree into bearing. A pruner should observe the results of the previous season's work on all varieties of all classes of trees. He will then learn their particular habits and how they respond to the treatment given them. The European plum does not, as a rule, often bear on the yearling lateral, but chiefly on spurs either direct on the main branches or on the older laterals. These require thinning and renewing as described for the Japanese plum. In some varieties, such as Prune d'Agen, the yearling lateral should be left a good length to induce it to develop spurs. Other varieties may have the laterals shortened very hard and they will still furnish up with spurs. Apricots are not unlike Japanese plums, in that they bear on yearling laterals and on spurs growing direct from the main limbs or from two-year-old laterals, but their spurs are not very lasting, and require renewing or invigorating frequently by shortening back the laterals which carry them. Apples and pears bear chiefly from spurs on two-year-old wood or older. Some varieties require the yearling laterals to be left a good length to induce them to develop spurs. The spurs also in some varieties multiply rapidly and become very weak if not thinned out. Old laterals carrying spurs should be shortened back in order to keep the remaining spurs in vigor.

The bearing habits of the different classes of fruit trees should be borne in mind, and in that connection the following may be useful: Peaches and nectarines bear chiefly on wood produced the previous season, and where there is sufficient of this class of lateral one can cut off the old laterals, thus encouraging growth of a fresh lot during the next growing season, and providing for fruiting in the season following that again. But where these trees have not made sufficient new laterals direct from the main limbs during the previous growing season, some young laterals or temporary spurs that have shot from the two-year-old laterals must be left, to allow for sufficient blossoming. The general rule, however, with these trees is to cut out the two-year-old laterals and leave sufficient of the yearling laterals. In light croppers only cut back the yearling laterals slightly, or do not shorten them at all. With heavy croppers which show their fruit buds close to the base of the laterals, shorten the yearling laterals hard.

Japanese plums will crop on the yearling laterals, but also develop permanent spurs on the older wood. Hence there is not the necessity for annual renewal, as in the peach. However, the spurs along old laterals become spent, and any lateral carrying spurs showing this tendency should be shortened hard back or cut out, so that a new spur will develop or a new lateral appear which will develop a new set of spurs. The Japanese plum responds to this treatment very readily.

Miss M. A. McGrath, who has been the telegraph counter clerk at the chief post office, Oamaru, for the last two years, has been promoted to postmistress at Tokatoka, for which place she will leave on Wednesday next, her place being filled locally by Mr Meehan (writes our Oamaru correspondent, under date June 23). The promotion is, it is understood, a substantial one, and Miss McGrath, who has always proved herself very capable and efficient as regards the general public, and of an unvarying, courteous, and obliging disposition, is accordingly congratulated on her well-earned advancement.

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