

HORTICULTURE

Fruit Institute at Iroquois

On April 15 and 16, a fruit institute meeting was held at Iroquois. The speakers were Mr. Harold Jones, a practical grower of wide repute from Mailand, and Mr. J. W. Crow, of the Ontario Agricultural College.

Mr. Jones opened the meeting with a discussion on selection and location for orchards. He emphasized the necessity of good drainage, indicating from examples from all over the Province that those orchards which are poorly drained are the first to suffer from winter-killing. If there is good drainage the roots reach far into the earth with sufficient pure air below the frost level to sustain the vitality of the tree, whereas if the water-table is within a foot or two of the surface of the ground, all the roots will be within two feet of the surface and in a bad winter all will be injured. Air draft is necessary as well as soil drainage. If three thermometers were placed, one on the top of a hill, one on the side and one at the bottom, a difference of as much as five degrees will be noted on a still night, the middle thermometer registering the highest. If therefore, an orchard is planted on the side of a hill, the drainage of the cold air to the bottom of the valley leaves the orchard in the place of lowest temperature. As to aspect, he has noticed that in the St. Lawrence valley, those orchards which have an East or South exposure do the best.

Mr. A. D. Harkness, of Iroquois, who with his father are the pioneer fruit-growers of this district, took up the questions of varieties best suited. He recommended first of all the McIntosh, which is a native of this locality and a very marketable apple. Along with it he recommended the Fameuse, also the Baxter, Wolfe River and Alexander. He would plant one-third of Fameuse, one-third McIntosh and one-third of the other three. In

order to get an orchard to mature early, he recommends the planting of the main stock 30 by 75 with early-maturing varieties between the latter to be got out again so soon as any indication of crowding appeared in an orchard. For those intervening trees he recommended Yellow Transparent, Astrachan, Duchess, Wealthy and Pippin. The planting of only one variety in an orchard is not wise because of the necessity of cross fertilization.

Mr. Crow took up the question of pruning and grafting, demonstrating his remarks by an example of a small tree.

On the subject of fillers and orchard cover crops, Mr. Jones gave out something entirely new to the fruit-growing world. It is a plan, which has been worked out by himself, by which a man can grow an orchard up to six years practically without interfering with the yield of that land in other crops. His plan is to manure the ground fully with barnyard manure, plant the trees in straight rows at distances depending on the variety, the McIntosh being not less than 35 feet apart, and the Wealthy not less than 25 feet, 30 by 35 feet being the best distance for McIntosh. During the first year, plant the ground with potatoes in rows both ways and cultivate both ways. Don't dig by the first of October, but leave the digging of the potatoes as long as possible for fear of frost. After the potatoes are dug, spread coarse manure at the rate of one load to eight trees, around the trees but not near the trunk, and wrap up the trunks with sulphate paper reaching from the ground upwards about a foot. The manure acts as a cover crop and the paper protects the tree from mice.

In the second year, plant some corn in hills both ways, but do not plant too near the trees. Between the first and twelfth of July, sow clover in with the corn. Cut the corn as soon as it is fit in the fall and take it off the field immediately. This gives a crop of corn and clover, and leaves no harbor for mice. In the third year, cut the clover as soon as ready and harvest. Let the second growth grow a firm mat, but look out for mice. The fourth, fifth and sixth years are a repetition of the first, second and third, with the exception, that on the fourth year 200 pounds to the acre of muriate of potash should be applied. From this time on, the orchard will pay for the use of the ground. Grow clover and plow under and alternate with oats and rye. Continue this system until the ground is shaded too much to allow the crop to grow.

The evening session was devoted almost entirely to the question of co-operation in growing and marketing fruit. Under a system of co-operation, a manager could be hired to seek a market for the fruit, to oversee its packing and grading and to arrange for any other business that the society might undertake, such as the engaging of a power-sprayer to do the work of spraying for the whole society, to arrange for central warehouses, to arrange for the delivery, packing and grading of fruit, and instruction in whatever might be of importance.

Mr. Jones recommended spraying, just as the blossom-buds are bursting, with the Bordeaux mixture. The second spraying should be done just before the blossoms open, when they are beginning to show color, and the third just after the petals fall. These three sprayings answer for everything except in some seasons, black spot. Muggy weather in the summer is almost a sure indication of black spot. It is well to spray then with Bordeaux, even though the apples be nearly ripe.

The Fruit Institute is an indication

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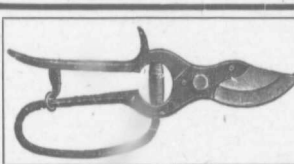
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of willingness of the Department of Agriculture to assist the farmer, and it is regrettable that the average farmer does not better appreciate such opportunities. The men sent out to any of these Institutes to lecture are men who know their business; they are men whose lives are devoted to the subjects on which they speak. Every good farmer throughout the country should know that in failing to attend an institute, when he can, he misses a golden opportunity.—J. G. Morrisburg, Ont.

Bordeaux Mixture

A. McNeill, Chief, Fruit Division, Ottawa.

The orchardist should not imagine that there is any great mystery or difficulty with reference to the making of the Bordeaux mixture or the use of it after it is made. Almost any of the ordinary directions found in any of the spray calendars will give good results. The material should be fresh made and should be kept agitated. My advice is to keep the growing tissue of leaf and fruit covered as nearly as may be with the thinnest possible coating of Bordeaux mixture during the growing season. Commence when the leaves have just fairly shown themselves and spray the first time. The blossoms will soon be out and then, of course, no spraying should be done until they are fairly well fallen. One should not wait, however, until the blossoms have all fallen before spraying again with the poisoned Bordeaux mixture as this is the time when the codling moth will be caught. The third spraying should be made 10 or 15 days later, and to get the best results, spray once more about two weeks later.

It is not necessary that the person doing the spraying should know all

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the enemies which he has to combat in order to get 200 per cent. on his money, but the satisfaction of working intelligently and the extra gain that will come will repay anyone in making a thorough study of the insect and fungous pests that trouble the orchard. The life history of these pests will suggest the proper time at which any extra spraying may be necessary; but every farmer should spray even if he does not know the name of a single insect in the orchard the operation will pay him well.

The Ontario department of Agriculture has received the following names and addresses of firms in Great Britain making enquiries as to Canadian distribution: Scora & Oliveri, 80-81 New St., Birmingham, Eng.; H. Weston, Much Marcle, Dymock, Glos., Eng.; John Kimberley, Tipton, Birmingham, Eng.; Henry Kenway Ltd., 97-100 Moor St., Birmingham, Eng.; Hardman Sons & Thompson Ltd., Tenbury, Worcestershire, Eng.; and The Armagh Cider Co., Fortandown, Ireland.

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