

the total being 1,794. An American pen of five White Leghorns are still in the lead with 722 eggs, the English pen of four layers being second with 702 eggs. The grand total of eggs laid for the period was 50,268.

Move the Chickens.

From now on, during this season, the colony house should be a strong feature of the poultry plant. Move the birds to the field, the summer-fallow, the orchard, and in the fall to the corn field. There is no better method of keeping the birds healthy and of promoting vigor and rapid growth. The orchard is one of the best places for the flock in summer. Here they get shade, which is essential on the hottest days. Free range gives the birds an opportunity to forage a large part of their feed. Green food is supplied in plenty, and the various forms of insect life provide an abundance of meat diet. Grit is plentiful, and, if a hopper of dry mash and whole grain and plenty of pure water is kept at the colony house, the birds should make the best possible returns.

GARDEN & ORCHARD.

The Lambton County Fruit Belt.

As is the case in places along the shore of many of our large lakes, the land lying immediately along the south-east shore of Lake Huron is for some little distance inland level and very fertile. It does not gradually rise to higher land, but back some eighty or one hundred rods, some places more, others less, and extending for a considerable distance along the shore, the land rises abruptly to considerable height. In these flats below the hill, and even on top of the hill, extending for some distance, is to be found an area ideal for the growing of all kinds of fruit. One only needs to stand on top of this hill and look over the thousands of apple, plum and peach trees, with their immense sea of foliage hiding their season's load of rapidly-growing fruit, nestling east of the thin line of forest monarchs which separates them from the water's edge and breaks the winds which cross the lake, to be convinced that here is indeed a goodly heritage. Nearly all the soil, high land and flats, in this district is well suited to horticultural work, and well may Lambton be proud of its accomplishments in fruit-growing.

From widespread reports circulated earlier in the season, many were led to believe that tender fruits like the peach could not be successfully grown in this district, owing to the severity of the winter. Last winter was an extremely cold one, and some peach trees succumbed, but all those trees constitutionally strong and vigorous and properly ripened up are looking healthy and strong, although the peach crop is not going to be abundant this season.

Walter Rawlings is one of the extensive fruit-growers, who operates about twenty acres of orchard on the flats by the lake, and who hopes to about double this acreage in the near future. In his orchard, apple trees are planted forty feet apart each way, and peaches, plums and cherries, mostly the former, are used as fillers. A solid row of peach trees, twenty feet apart, is run between each two rows of apple trees in the row, making three of the smaller fruit trees to one of the apple trees. This orchard is thoroughly sprayed three times each year, and clean cultivation is adopted. Winter injury was comparatively light, and many of the peach trees show a good crop, while most of the plum trees are loaded, and a fair crop is borne by the cherries. Where a tree has been injured or killed by the hard winter, it has been one that was weakened down by an unusually heavy crop or by being split in the trunk, or by the water standing around it. The apple trees in the orchard are ten years old, and they have made great growth, many of them showing a great crop of fruit. Baldwins, Greenings and Golden Russets form a large part of the apple plantation. The peaches, plums and cherries serve to keep the land yielding a profitable crop, while the apple trees are growing to such a stage of maturity to warrant the removal of all fillers. Where the tender fruits succeed, the filler system is a very profitable method to follow.

Just a little to the south of the Rawlings orchard, and situated much the same, as regards soil and climatic conditions, are the wonderful orchards of D. Johnson, one of Canada's most noted fruit-growers. These orchards comprise some thirty-five acres of apple trees, now about forty years of age, twelve acres of five-year-old peach trees, and six acres of younger peach trees. The peach orchards are, of course, apple orchards

as well, the peach trees being used as fillers, following the same system as Mr. Rawlings.

The apple orchard is carrying a heavy set, as is the case with most of the apple trees in Lambton's fruit district. Considerable winter injury is to be seen in the lower limbs of many of the apple trees, attributable, Mr. Johnson believes, to the fact that, owing to continued clean cultivation year after year for some time, the trees have made too rapid growth, and were tender, not having borne fruit in proportion to the increase of growth. To overcome this difficulty, he intends to seed the orchard down to timothy and leave it in sod two years, when the crop will be cut down on it, the land broken and reseeded. Too much wood growth tends to produce a tender tree, not as productive as one which does not grow so fast. Mr. Johnson is a strong advocate of a cover crop for the peach orchard. He cited a case of a six-acre orchard of one of his neighbors, which had made a phenomenal growth last season, owing to continued good cultivation. Two acres of this was sown to a cover crop, and this two acres is now covered with a fine bunch of trees, while the four acres which had no cover crop was "hard hit" by the winter. There is nothing like clean cultivation to grow trees, but cover crops are essential to harden them off in preparation for winter. The heavy crop of peaches picked last year helped to ripen up the wood of the bearing trees, and most of the orchards look well, winter injury being not more than five per cent. If trees would stand last winter, they will stand any winter, and the peach industry is a sure thing in the lake district of Lambton.

Methods of spraying in the Johnson orchard



A Profitable Tree.

A five-year-old peach tree which in its four-year-old form produced 14 11-quart baskets of first-class peaches. This is a representative tree in the orchard of D. Johnson, Forest.

need not be discussed, as they are up-to-date in every particular, and the trees show the effect of good care.

Besides the 35 acres of apples on his own place, Mr. Johnson handled the same acreage or more of rented orchards. He operates his own evaporator, and sends his own traveller to the West to dispose of his crop. His pack is put up in barrels, and is recognized as the best, strict tab by a check system being kept on each and every employee.

Speaking of yields and growth of trees, Mr. Johnson has a Baldwin apple tree which in 1908 gave 26 barrels of apples which sold for from three to three and one-half dollars per barrel. He last year picked fourteen 11-quart baskets of peaches from a four-year-old tree, and they sold for 90 cents per basket, f.o.b., Forest. Four-year-old peach trees in his orchard measured twenty feet across the top. The soil, climate and cultivation must be ideal for fruit. It is not an uncommon occurrence for many of his apple trees to yield 20 barrels to a tree. The apple orchard is largely composed of the common winter varieties, and the varieties of peaches thought well of by the owner are Elberta, Fitzgerald, Kalamazoo, Crosby, Crawford, and a few Smock and others. To permit of a freer air circulation in his orchards, Mr. Johnson purposes cutting down a large part of the natural forest wind break which now shelters it on the west side. He is a firm believer in the value of air drainage in the production of high-class fruit.

Some of a neighbor's best fruit is being produced in this section, and we look for a large increase in the acreage devoted to this industry in Lambton County within the next few years.

Advantages of Thinning.

The following dozen ways in which thinning fruit is an advantage to the grower were recently cited by R. M. Winslow, B. S. A., in the B. C. Saturday Sunset:

1. The average size of the fruit left on the trees is increased. This is the most obvious result of thinning. Trees overburdened with fruit produce a greater percentage of No. 2 apples. The increase in size of the remainder, after the first or second pickings of Bartlett pears is made is a striking instance of the increase in size when the number of fruits is reduced.

2. The fruit borne is more uniform in size and shape. On the overloaded tree there is much variation in size, and, especially where two or more fruits remain on a spur, they are variable in shape, as well. The fruits from the side blossoms of the cluster are in many varieties much different from those from the center blossom, usually being flatter in shape and having a considerably longer stem. Uniformity in size and shape is an important essential of commercial perfection.

3. The color is materially bettered, more uniform, and comes earlier. The remarkable increase in color which occurs when a first picking is made from heavily-bearing trees of even the winter varieties, such as Jonathan and Wagener, furnishes striking confirmation of this point. While color seems largely related to sunshine, it is a well-known fact that on a heavily-loaded tree the fruit has less color, which is less evenly distributed and more slowly acquired.

4. Thinning improves the quality. This is especially the case where the soil is deficient in moisture or plant food.

5. The fruit is freer of diseases and insect pests, because wormy apples, limb-bruised or diseased fruit of any kind can be removed at thinning time. On plums and peaches, in moist regions, fruits thinned so that no two touch when fully grown, are much freer of brown rot.

6. The removal of mis-shapen fruit lowers the percentage of low-grade fruit.

7. Thinning prevents premature dropping. A familiar instance is that of the McIntosh Red, which is especially liable to drop where two fruits are left on one spur. Premature dropping is quite largely due to the inability of the tree to supply moisture to an excessive crop.

8. The load of fruit is more evenly distributed, and this is a very important feature in preventing the breaking down of trees.

9. The cost of picking is reduced considerably, and the labor of picking is divided more evenly over the season. This is an important advantage where the supply of labor is deficient at picking time. Costs of grading and packing are also much lessened.

10. Less fertility is removed from the soil. A ton of apples takes out approximately 1.2 lbs. of nitrogen, 1-6 lb. potash, and 0.6 lb. of phosphoric acid. A ton of pears removes the same amount of nitrogen and about twice as much of the other elements. The seeds take the great bulk of these amounts, the pulp of the fruit taking but a small portion. As the number of seeds is roughly in proportion to the number of apples, and not to their size, the removal of fruits leaves a much greater supply of plant food for the balance of the crop, for the growth of the trees, and in the soil.

11. The tree is less liable to winter injury. The ripening of the heavy crop drains the vitality of the tree, so leaving it in poor shape to withstand the winter. Trees bearing moderate crops, for which there is an adequate supply of plant food and an adequate supply of moisture, have sufficient vitality to ripen the crop, and to ripen the fruit buds and new shoots, as well.

12. One of the most important results of thinning is that the trees will bear a larger and more uniform crop the following year. The tendency towards biennial bearing is materially reduced, much depending in this, however, on the variety.

For various reasons, then, thinning helps materially to secure the maximum duty from the tree. Mr. Winslow believes that thinning should be