

parts of water to produce a rich milk. This would give an article containing distinctly less than 2 per cent. of milk-fat.

6. The last conclusion is that, while there is a general approximation to a type found among the samples bearing the same name, occasional deviations of considerable amount occur. This is in accord with conclusions reached by the late Chief Analyst, who said, in a former publication (Bulletin No. 69): "I am not convinced that absolute uniformity of product is attainable in any condensed-milk factory."

The bulletin is an important contribution to our too-little knowledge of condensed milk. Nothing is said about milk powders, which are also made by at least one firm in Canada.

There seems to be considerable mystery about the manufacture of condensed milk. We understand that it is impossible to gain admittance to one of the factories. We are all very curious, Mr. Condenser, to see how you do the trick. Will you not take us into your confidence, and let us know how it is done? Our curiosity, inherited from Mother Eve, has been aroused. Please tell us something about condensed milk.

H. H. D.

GARDEN ORCHARD.

PLANTING A PEACH ORCHARD.

By Linus Woolverton.

In a recent number we gave some reliable advice regarding the most profitable commercial varieties of apples to order for planting in the various districts, which was of interest to a large portion of the settled parts of our Province. Now we will treat briefly of the most profitable commercial varieties of peaches, a fruit which, of course, is grown only in a limited section. Last season the price of peaches was so very high that peach land is much in demand this spring, and much land now planted to other fruits is being cleared for peaches.

VARIETIES.

The first problem presenting itself to the novice who has purchased land for peach-growing is the selection of varieties for planting from the long list offered by the salesman. A conservative list was published in Bulletin 147, Ontario Department of Agriculture, as follows:

- Sneed.—White-fleshed, clingstone, quality only fair, earliest of all.
- Alexander.—White-fleshed, clingstone.
- Hynes.—White-fleshed, semicling, quality good.
- St. John.—Yellow-fleshed, freestone, quality good.
- Mountain Rose.—White-fleshed, freestone, quality very good.
- Early Crawford.—Yellow-fleshed, freestone, quality very good.
- Champion.—White-fleshed, freestone, quality very good, for home use or near markets.
- Brigdon.—Yellow-fleshed, freestone, quality good.
- Fitzgerald.—Yellow-fleshed, freestone, quality very good.
- Reeves.—Yellow-fleshed, freestone, quality fair, large size.
- Elberta.—Yellow-fleshed, freestone, quality good for long-distance shipments.
- Oldmixon.—White-fleshed, freestone, quality good.
- Stevens.—White-fleshed, freestone, quality good.
- Smock.—Yellow-fleshed, freestone, quality fair, very late, good shipper.
- Domestic: Hynes, St. John, Early Crawford, Oldmixon, Longhurst, Stevens.

But such a list, however good, will need occasional revision. At the recent convention of fruit-growers, at Grimsby, Mr. E. D. Smith, who buys and sells more peaches than any other man in Canada, advised growing yellow peaches almost entirely, for profit. The public taste demands the yellow peach, and, during the season of 1907, brought the grower, on an average, double the price of the white-fleshed. For canning, the factories would contract freely for yellow peaches, and would not take white-fleshed. Mr. Smith himself had put up forty or fifty cases of white-fleshed peaches at his factory in Beamsville, and had offered them in all his quotations, but, though he had sold hundreds of cases of the yellow, he had no call for those forty cases of white. He would name the following for profit, viz.: Yellow—St. John, Early Crawford, New Prolific, Elberta, and Longhurst.

Mr. Hale said that, with so much intelligence in other things, he thought Canadians should perceive the great superiority of white-flesh peaches in quality and flavor for dessert, and should always continue planting a small proportion of white-flesh peaches, until an educated taste was so cultivated that they would be in demand. He knew of no peach so delicious as well-ripened Oldmixon or Champion or Mountain Rose, and he had a special market for such peaches at higher prices than he could get for any others. For export, his favorites were Elberta and Bell of Georgia. These were sister seedlings of the

Chinese Free, and, while the former was a yellow, and perhaps a cross with Early Crawford, the latter was white-flesh, and very delicious. It was harder than the Elberta, almost as good a shipper, and ripened a week ahead of it. Hiley, a seedling of Bell of Georgia, was also a fine variety.

In answer to some questions on varieties, Mr. Hale spoke of Carmen as desirable, harder in bud than Elberta, fruit large, rich crimson in sun, sweet and delicious, almost as large as Elberta, but rots almost as easily as the triumph. Willett is a shy bearer; Niagara and Chair's Choice are shy bearers; Kalamazoo is identical with New Prolific, a first-class variety; and Stephens' Rare-ripe is a good variety to follow Elberta.

On Maplehurst Fruit Farm, the writer has grown New Prolific, and found it very productive of fine yellow peaches of the Early Crawford type, and would substitute it for Fitzgerald on the above list.

PLANTING.

There is much divergence in opinion respecting the proper distance apart for planting peach trees. The old orchard, planted on the writer's farm in 1860, was set twenty feet apart each way, and, not being shortened in, the branches almost interlocked after twelve or fifteen years. With close shortening in, however, and constant watchfulness in pruning, they may be planted much closer. The writer has recently set rows 18 feet apart, and trees 12 feet apart in each row. Mr. Hale stated, at the Convention, that he had planted some of his orchards 13 x 13, and others 18 x 18. A novel idea was to plant 20 x 20, and, after six or eight years, plant again 20 x 20, making them all 10 x 10, the older-planted trees to be removed when the ground was required by the second planting.

In buying trees, care should be taken to accept only those one year from the bud. The green, fresh color of the bark from the mark where the old stock was cut off near the ground, will be the guide in this matter. This is important, because older trees do not transplant successfully.

Before planting, the peach tree should be pruned to a whip, leaving no branches at all, and then this whip should be shortened back to some strong buds.

Growers differ as to the height from the ground most judicious for forming the top. Our usual custom has been to form it at from 2½ to 3½ feet, in order to give easy access for cultivation, but the recent methods necessary for securing high-grade fruit argue strongly for very low heads. The grower must go over his trees many times, spraying, pruning, thinning, harvesting, and the nearer the ground he keeps his top, the less climbing.

Mr. Hale cuts off his trees at eight or ten inches from the ground. Then, he keeps the whole top down so low that the fruit can be harvested without any climbing. He stated, at the recent convention, that he had harvested 250 carloads of peaches in a single season, without using even a step-ladder!

EXPERIMENTS WITH VEGETABLES.

The practical educational work carried on by the Ontario Agricultural College, through the Experimental Union, is now well known throughout Ontario. Thousands of people in both town and country, interested in farming, fruit-growing or gardening, are carrying on experiments under direction of the College, and are profiting by the experience.

The seeds or plants for these experiments, and full instructions for conducting them, are furnished free on the understanding that each experimenter will report the results of his experiment at the end of the season.

Owing to the great demand for the experiments with fruits, and the limited funds for the purchase of plants for this purpose, the supply of these for this year is already exhausted. But we have on hand a good supply of seeds for the experiments with vegetables, and hope to be able to furnish these to all interested in the growing of the best kind of garden vegetables.

Three of the leading varieties of each of the following kinds of vegetables are offered for testing this spring, viz., beets, carrots, onions, lettuce, early tomatoes, and later tomatoes.

The early tomatoes are best for northern sections where the later and better varieties cannot be depended upon to ripen.

Any person in Ontario who wishes to join in this co-operative testing may choose any one of the experiments above mentioned, and send in his application for the seeds and instructions for conducting the same. These will be sent by mail, free of charge, but each applicant must agree to follow the directions furnished, and report the results at the end of the season, whether successful or not.

Applications will be filed in the order they are received, until the supply of seeds is exhausted. Address all applications to

H. L. HUTT.

Ontario Agricultural College, Guelph, Ont.

GLEANINGS FROM THE NIAGARA PENINSULA FRUIT-GROWERS' CONVENTION.

Reference was made in "The Farmer's Advocate" last week to a very successful and enthusiastic three-days' convention of the Niagara Peninsula Fruit-growers, held in Grimsby and St. Catharines. Below will be found a budget of information, gathered for our readers by a special correspondent:

COMMERCIAL PEACH CULTURE.

The first of the three-days' fruit meeting opened in Grimsby, on March 4th, with an attendance of over three hundred.

J. H. Hale, of South Glastonbury, Conn., a strong, pleasing speaker, spoke on "Commercial Peach-growing." Peach-culture is one of the most profitable branches of fruit-raising, and was one of the most risky. The Niagara District escapes the climatic changes that many of the southern States suffer from. As an instance of rapid increase in many lines of horticulture, fifteen years ago not a single carload of canteloupes was shipped from any one station in the United States, while in 1907 some 11,000 carloads were forwarded. Fruit-growing has also increased very rapidly. He believes in getting on the land as soon as it is dry and cultivating the trees, continuing until the bending branches, loaded with fruit, prevents further work. Grow cover crops the balance of the season. Keep the trees low, making pruning, spraying, thinning and gathering easier, and producing better fruit and longer-lived trees. He advocates summer pruning in late June or early July, on trees growing in strong soil, to stimulate the formation of fruit buds. He thins his peaches to from 6 to 8 inches apart. If thinned to eight inches, fruit will ripen a week earlier than on more heavily-laden trees. Fruit should be fully developed before gathered, going over the trees at least three times. Pack in central stations, with skilled help—women preferred. In teaching how to grow and produce good fruit, do not forget the selling or business end. Buyers make the price on No. 2 and culls; the seller can command his price on No. 1 and fancy grades. He plants the trees 18 x 18 and 20 x 20 feet apart. Yellows are most serious in colder climates. There is no known remedy; take out tree and burn as soon as first indication shows—no salvation for tree. Keep the orchard as long as the trees are vigorous and healthy. Peaches can follow peaches, if constituents lacking in soil are replaced. He uses chemical fertilizers—ground bone and muriate of potash—and plows under cover crops. The summer vetch is valuable for the purpose. Sow 40 to 50 pounds per acre. White peaches are better-flavored than yellow. Belle of Georgia in white takes the place of Elberta in yellow. The New Prolific is the same as Kalamazoo.

W. G. Farnsworth, of Waterville, Ohio, spoke on "Cultivation and Soil Moisture, and How to Conserve." It takes 900 tons of moisture to produce a 60-bushel crop of corn; a crop of peaches would require equally as much. Good drainage is necessary to remove surplus water in soil. Excess causes short-lived trees. Thorough tillage is essential; utilize leguminous crops.

In the evening, Prof. Hutt, of the O. A. C., spoke on "Better Fruit," emphasizing the growing of the best strains of the best varieties; budding and grafting from particularly good bearing trees; striving to improve, also, by better orchard management and tillage.

Prof. Macoun, of Ottawa, discussed the subject, "Individuality in Fruit."

Mr. Farnsworth gave his experience in growing strawberries, and Mr. Hale his manner of handling the peach crop of 2,000 acres in Georgia.

LIME-SULPHUR THE BEST FUNGICIDE.

On Thursday, March 5th, at St. Catharines, the meetings were resumed. The large hall was packed to its utmost capacity. Mr. Farnsworth gave his experience with lime-sulphur spray. Since commencing to use the mixture, so efficacious has it proved in invigorating the trees that, even when no scale is present, the grower is well repaid for his trouble. The mixture must be thoroughly boiled, and applied carefully, taking advantage of the wind to help carry the spray to all parts of the tree, and waiting till the wind is in the opposite quarter to complete the spraying. Uses 18 pounds of sulphur (sublimed, or flowers of sulphur) and 20 pounds of lime to 50 gallons of water. Boiling with steam, sublimed sulphur gives a more even mixture, breaking down more quickly, and not leaving so many particles free. The sulphur can be dumped on the lime in the barrel without being made into a paste. No other remedy so far found leaves the trees in as vigorous condition, the lime-sulphur being by far the best fungicide.

Mr. Hale corroborated what Mr. Farnsworth said. The greater portion of Mr. Hale's time was taken up in answering questions. The evening meeting was largely attended by the members of the city Horticultural Society.

APPEARANCE OPENS; QUALITY KEEPS OPEN THE POCKETBOOK.

On Friday morning, Mr. Hale gave further ex-