



An Ocean Liner of Apples.

The unique exhibit of Northumberland and Durham Counties at the Fruit Show.

which make winding, brownish streaks or burrows through the fruit. The insect passes the winter in the pupal stage in the soil, and the adult emerges in July. The egg is laid under the skin of the apple, and the insect hatches and begins work. Infected apples become woody and unfit for use. The most reliable remedy is the gathering and destruction of all fallen fruit twice per week. Hogs or sheep will usually keep this fallen fruit cleaned up, and much of it can be profitably disposed of to the evaporators. Harvest apples, sweet apples, Snows and Spies seem to be the worst-affected varieties in Ontario. No variety appears to be exempt from attack. Very acid varieties are much less subject to attack than sub-acid and sweet apples. Good orchard practice seems to keep the railroad worm away, concluded Mr. Ross.

#### THE NEEDS AND POSSIBILITIES OF ORCHARDING.

Four needs of the orchard were pointed out by W. F. Kydd, of Simcoe, who has been in charge of demonstration orchards in the Georgian Bay District, chief of which he thought was manure. He did not think it possible to grow large crops of good fruit without manure. Following this comes pruning. More trees are left too thick than are too severely thinned. Speed is necessary, and for this he recommended long-handled shears. Careful spraying he deemed the third essential, as clean fruit cannot be had without it. Cultivation he placed as the last essential. This, he believed, depends largely upon locality. Mr. Kydd thought no other branch of agriculture was progressing so fast as fruit-growing. More spray pumps were bought by growers the past season than ever before, but still there is a great deal to be accomplished. He cited conditions in the Georgian Bay District. Orchards, he said, in Simcoe County will not average \$25.00 per acre, whereas, if all were properly cared for, \$100.00 per acre would be a low estimate. Possibilities, he thought, were unlimited, and that from \$100.00 to \$500.00 per acre could be realized. He knew an orchard which in 1910 yielded \$50.00 worth of fruit, and in 1911, the first year of care, it yielded \$225.00. Another case was mentioned of an orchard which in 1909 gave \$200.00; in 1910, under care, \$510.00, and in 1911, the second year of proper treatment, boosted the returns to \$1,200. Greater care is still necessary in picking and packing, said Mr. Kydd, in closing.

#### CULTIVATION A PRIME FACTOR.

The greatest factor in successful orcharding is cultivation, according to Prof. J. W. Crow, of Guelph. He believed that it was more important than fertilizers. In experiments carried on for fifteen years at Woburn Experiment Station, in England, he was better where no fertilizer was used than good cultivation adopted. The experiments showed that a large amount of fertilizer was used, but the fruit was small and the trees were killed by actual experiment has failed to produce clean fruit buds, and so no more fruit can result than from clean cultivation, which

he believes to be the greatest factor in rendering plant food already in the soil into an available condition. Nitrogen and humus can be added by the use of leguminous cover crops, and thorough cultivation will accomplish wonders; so that, before buying chemical fertilizers, the soil should be carefully studied, to show what is needed.

Underdrainage, said Prof. Crow, can safely be recommended for all clay or clay loam orchard soils, unless on a heavy slope or a sandy or gravelly subsoil. It adds more root area per tree, and thus more food material is reached.

The subject of fall plowing raised an interesting discussion. In view of the fact that it makes earlier spring cultivation possible, and because early spring cultivation is important, Prof. Crow rather favored the idea. Fall-plowed land does not freeze to so great a depth as unplowed soil. It opens the soil and puts it in a first-class mechanical condition through the action of the frost, and, while it will not hold the snow as well as

unplowed land on which a cover crop is growing. Prof. Crow thought it would be all right in Southern Ontario, and could see no reason why it should not prove generally satisfactory, provided it was done very shallow. Much discussion followed, in which Dr. C. H. Riggs, of the Carefree Orchard Company, Toronto, cited a case of an orchard which gave a good crop on the spring-plowed section, and a very poor crop on the portion fall-plowed. Other conditions may have operated against the fall-plowed portion.

Windbreaks were discussed at length, and it was pointed out that it is quite possible to get them too thick, so as to obstruct the free circulation of air, so essential to clean, bright fruit.

#### A BRITISH MARKET FOR OUR PEACHES.

C. A. Dobson, Jordan Harbor, and A. C. Biggs, of Burlington, addressed the convention on the possibilities of shipping peaches to the British market. Mr. Dobson's shipments the past season comprised some 3,500 boxes of Elbertas, and the results convinced him that it is quite possible to market our peaches in Covent Garden, London, in good condition, and at a profitable price to the grower. High-class trade is all that we can hope to cater to, and in picking and packing it must be remembered that fifteen days will elapse between picking and marketing. If peaches are selling here at one dollar a basket, to make a profit they must bring two dollars on the English market. Growers were urged to keep in close touch with the Cold-storage Branch. No complaints were received by either Mr. Biggs or Mr. Dobson, a fact which testifies to the quality of the fruit sent, and to its good condition upon arrival. Careful handling is imperative, and double wrapping advisable. Thoroughness, Mr. Biggs believed to be the keynote of success in the venture. He thought that some kind of tight box might be used to good advantage to hold the cold air in the boxes upon leaving the cold storage, and thus enhance the keeping qualities of the fruit.

#### CARING FOR THE PEACH ORCHARD.

"The Care of the Peach Orchard" was the subject of an address by F. M. Clement, B. S. A., of Elgin County. Good varieties he considered the first essential to success. Different localities require different varieties, so it is necessary to study the district in which the orchard is to be located. Proper pruning and cultivation must be attended to if good results are to follow. Much diversity of opinion is shown in peach-orchard practice; some cut back and thin severely, while others do not practice cutting back at all, and each seems to get good results. Strong, thrifty trees, well fertilized and well cultivated, can be expected to do well if the climate is suitable. Late cultivation must be avoided, or the trees will suffer. Cultivation should cease about the first or middle of July, and a cover crop be sown. Mr. Clement believed that thinning the fruit would pay large returns, but most of the growers, he said, lacked the courage to do it.



A Great Commercial Exhibit.

Over 500 boxes of fancy apples exhibited by Lambton County at the Fruit Show in Toronto last week. The illustration does not do justice to the exhibit, owing to the difficulty in bringing out colors.