

Ontario Fruit Growers

The thirty-first annual meeting of the Ontario Fruit Growers' Association was held at Whitby on Tuesday and Wednesday, December 5th and 6th. The attendance, though not as large as when the convention meets in special fruit sections such as the Niagara district, was fair, and the keenest interest was taken in the proceedings. There were a number of specimens of fruit on exhibition, chiefly apples and pears, many of them being samples of new fruit grown at the Central Experimental Farm, Ottawa. A disgraceful sample of dishonest packing was exhibited by an apple-buyer. The barrel contained some very fine specimens of Ba'dwins on top, while the centre and bottom of the barrel was filled with miserable, trashy stuff about the size of plums, and hardly fit for making good cider. If this be a sample it shows what some unscrupulous apple-packers will resort to in their dishonest and despicable practices. This matter was thoroughly discussed by the convention, and formed the key-note for many strong remarks against dishonesty and robbery in connection with apple-packing.

Mr. W. M. Orr, Fruitland, Ont., Vice-President, presided in the absence of the President, Mr. W. E. Wellington. After the appointment of the committees on the fruit exhibits, resolutions and the nominating committee, the regular business of the convention opened by a paper on "Hardy Fruits Along the St. Lawrence," by W. A. Whitney, Iroquois, in which he gave the following list: Summer—Yellow Transparent, Duchess, Red Astrachan. Early winter—Fameuse, Scarlet Pippin, McIntosh and Wealthy. Late winter—Scott's Winter, Salome, Seek, Golden Russet, Yellow Belleville, Ontario, Tolman Sweet and Canada Red.

Mr. Geo. T. Powell, Chent, N.Y., a noted Institute worker and fruit grower, spoke of the importance of thinning fruit, taking out the poor, scabby and inferior samples. He preferred thinning by pruning, as trees exhaust themselves by carrying too much wood. Judicious pruning was the first and most important operation of the fruit grower.

In the discussion following Mr. E. Morris pointed out that he would prune about August 1st, because growth is then about at a standstill, and the result would be to strengthen the fruit buds. Prof. McCoun warned fruit growers against top grafting on Wealthy or Duchess, as the growth was too slow.

TOP GRAFTING AND CULTURE.

On Tuesday afternoon, Mr. J. T. Graham, Vandeleur, discussed top-grafting and irrigation in which he gave a description of some special work in his own orchard. Seven years ago he grafted on seedling stock, Baldwins and King of Tompkins, and the results have proven very satisfactory.

Upon a small corner of his orchard, 17x25 feet he picked 30 bbls. of apples, for which he received \$2 per bbl. He pointed out that top-grafted trees bear much heavier than nursery stock. Speaking of watery or bad keeping fruit he pointed out that he had irrigated his orchard in dry weather, and found his apples kept well and the growth was continuous from start to finish.

A valuable paper on "Pears for the Amateur and Professional Grower," was read by Mr. E. C. Beaman, of New-castle.

One of the important addresses of the convention was made by Mr. Powell, of New York State, upon general fruit culture and the importance of improving the size and quality of the fruit. He emphasized the importance of propagating from mature stock. In the young tree the growth of wood is propagated and not the ability to produce fruit. The study of the individuality of the tree was important. Scions should be selected from perfectly formed trees. There was a difference in the assimilating power of trees. A large share of the inferior fruit in an orchard could be eliminated by culture. Fully developing trees puts them in a position to withstand disease. Attention should be given to the soil. Trees must have perfect nutrition in order to develop. Nutrition can be secured by proper tillage.

Mr. Powell then described his method of tillage. About ten years ago he was growing trees on soil lacking in humus. The lack of humus prevented the withstanding of drouth. He then began a system of cultivation with a view of incorporating humus in the soil by growing and plowing under crimson clover, and by early culture in the spring and as much as possible during the season, until the tree is well grown which is about the middle of July in New York State. High tillage makes it necessary to cover the ground for the balance of the season. This is done by sowing crimson clover as soon as cultivation ceases. This covering tends to hold nitrates and by plowing in the clover in the spring humus is supplied the soil. Peas are not so good as crimson clover as they freeze earlier. If clover will not grow, a mixture of rye and peas will do. The aim is to have living plants in the orchard all winter.

After carrying on this line of culture for several years, Mr. Powell had an analysis made of the soil on a part of the orchard where clover was grown and where there was no clover. He cultivated only six inches deep and the analysis and the increase in plant food, etc., per acre given below are based upon a depth of six inches only.

The following is the table:

CRIMSON CLOVER AS A GREEN MANURE.			
—Analysis of soils—			
	3 crops clover.		No clover.
Water	15. per cent.		8.75 per cent.
Nitrogen	.21 "		.12 "
Humus	2.94 "		1.91 "
Phosphoric acid available....	.015 "		.008 "
Water, increase per acre.....	6.25 per cent.		46.875 tons.
Nitrogen	.09 "		1,350 lbs.
Phosphoric acid	.007 "		405 "

This shows a remarkable increase. To buy 1,350 lbs. of nitrogen at 15c. per lb. would cost \$202.50. By this method of culture, as the table shows, good fruit can be grown, and yet the quality of the soil can be improved. Mr. Powell's contention was that the phosphoric acid was increased by the humic acid setting free more of it in the soil.

In the discussion which followed it was pointed out that though the plants would winter kill, their effect was not lost in this method of tillage. Drouth and warm weather following has brought the apple business into a national calamity. It might be difficult to get clover to grow in midsummer. Mr. Powell's soil was a gravel loam. Peas might do better than clover on clay soils. This tillage should be applied to all fruits. Clover might not do so well with peaches, as it might cause too much nitrogen in the soil.

Prof. McCoun pointed out that at the Ottawa farm, where the soil was a sandy loam, the aim was to get as much nitrogen in the land as possible. The plan was to plow red clover in the spring, and re-seed with clover. Clover was cut, but allowed to remain on land. Hungarian grass would not do on an orchard, as it would take too much nourishment out of the soil. When an orchard has been in grass for some time the first plowing should be light. When not cultivated the roots of trees come near surface in order to get moisture. Cow peas do very well where they can be grown.

Mr. E. B. Edwards, Peterboro, Ont., followed with a talk on spraying, in which he highly commended spraying and the Government in sending out a spraying outfit. The value of orchards was increased 50 per cent. by spraying. In his own orchard 8 or 9 years ago, about half the fruit was unfit to pack, but by spraying in 1898 he had 50 bbls. of good shipping apples out of 66, which sold for \$3 per barrel.

Prof. H. S. Hutt, of the Ontario Agricultural College, presented a report of the committee on new fruits. There were not so many new fruits brought to light the past season, though some very promising specimens were identified.

During this session Mr. A. H. Pettit discussed dishonest apple packing, and read a strong resolution passed at a meeting of fruit growers at Grimsby last June, and which