

Niagara Fruit-growers Hold Convention.

Cardinal principles in fruit-growing were dealt with by experts at the annual convention of the Niagara Peninsula Fruit-growers' Association last week. On Wednesday, over one hundred intelligent and enthusiastic orchardists met in Institute Hall, at Winona, for afternoon and evening sessions, while, on Thursday and Friday, similar gatherings showed their interest by attending meetings at St. Catharines.

The talent included C. E. Bassett, of Fennville, Mich., Secretary of the Michigan State Horticultural Society; Gabriel Hiester, of Harrisburg, Penn., President of the Pennsylvania State Horticultural Society; and Professor R. Harcourt, of Ontario Agricultural College, Guelph. Each proved to be worthy of a place on the programme. The numerous queries also showed that local men had combined a study of the scientific side of fruit production with practical work. In fact, the true value of the meetings lay in the questions and ensuing discussions. On every side a great interest was manifested in spraying, and particularly in lime-sulphur wash. Full and clear as the matter was dealt with, the comparative values of the different commercial preparations and those that are home-boiled, were not arrived at. It was, however, agreed that the home-boiled lime and sulphur, properly prepared with an excess of lime, was stronger than the commercial grades mixed in proportions as directed by their manufacturers, and none had found any damage from the strongest. For this reason, growers were advised either to prepare their own, or not to dilute as much as directions suggested. By all, lime-sulphur was proclaimed the most satisfactory spraying mixture known to orchard practice.

In discussing spraying from the chemist's standpoint, Professor Harcourt explained that the boiling of lime and sulphur in water resulted in six compounds, varying in efficiency, according to the quality of the materials and the extent of the boiling. In every case it was necessary to have an excess of lime, and 20 of lime to 15 of sulphur was found to give the desired combination, with the use of the minimum quantity of lime. Three sulphides were formed as the boiling went on. The lowest sulphide, Ca S, was weak, and, as boiling was continued, higher forms, Ca S₂ and Ca S₃, were formed, either of which were effective, and the former desirable because of economy of time and heat. As the boiling was continued, these sulphides again changed to less effective forms, known as thio sulphates, sulphites and sulphates. As yet, no test had been ascertained that would inform the orchardist when he had applied the necessary heat. A bright amber color seemed to reveal the maximum strength. If iron got into the mixture from the piping, or through impurities in the lime, a green color was imparted. Tests at Guelph showed that there was but little difference in the quality of Beachville, Port Colborne or Guelph-Hamilton lime. With the last named, it was necessary to use slightly larger quantities. Repeated tests of grades of sulphur also showed that number one flour of sulphur was superior to flowers of sulphur because it combined with the lime more readily.

Analyses of commercial washes, diluted as directed, one part to eleven of water, showed an absence in uniformity of the mixtures. Of several tests, the strongest showed 115 grams of sulphides to a gallon, while the weakest contained only 53.8 grams. Samples analyzed recently ranged from 82 grams to 59 grams. Home-boiled washes, prepared according to the 20-15 formula, gave 153 grams after one-half hour's boiling, and 161 grams when boiled for an hour. As to whether direct bottom heat or steam was preferable, it was claimed that there was little or no difference, provided the boiling was sufficiently vigorous.

The Professor expressed a desire to be supplied with samples, as used by leading growers, so that he could analyze them and find out just what strength was being used in individual cases. Several of the growers stated that last year a College student had made arrangements with them to collect samples, but that nothing more was heard of it after the samples had been made ready. Professor Harcourt explained that the student had done this on his own account, as the College had not delegated any man to gather such samples. This year, however, a special effort would be made to find out particulars that would be of value to orchardists.

Apples, pears, grapes and small fruits, with the discussion of methods adopted, formed the basis for practical talks by Mr. Hiester, who had 25 years' experience. Special attention must be paid to soil and subsoil before setting out trees or plants of any kind. With the larger fruits, and with grapes, it was found necessary to have suitable subsoil, with thorough drainage. In combating black rot in grapes, he practiced clean cultivation, so that the heat from the bare soil would tend to prevent development of the fungus, and, by frequent use of Bordeaux mixture, he found little damage. He had applied

the first spray before growth began in spring, but expert opinion said that it was not necessary to spray until the third leaf was coming. Then it was advised to give a thorough application prior to each rain, because the damp weather meant soft growth that was most likely to be infected.

Low, open heading of peach trees was urged by Mr. Bassett. With him, the question of elevation received more attention than did soil. He had found that almost any soil could be made to produce peaches, if the trees were planted where there was air drainage, as well as water drainage. It was essential that cold air should flow from a peach orchard as freely as water flows down hill.

The chief objection he took to peach plantations in the Niagara district was that the tree tops were too far from the ground, and the branches were so thick as to exclude the sunlight. In order to have attractive fruit, the sunshine should reach all parts of the tree. High color and superior quality went hand in hand, and the sun had much to do with both. Growers should be satisfied with fewer baskets and higher quality. Orchardists, he said, should not be foresters.

The varieties grown in Michigan showed his choice of peaches to be: Engle's Mammoth, Conklin, Kalamazoo (similar to New Prolific), Elberta, Smock, and Lemon Free.

Mr. Bassett proved to be a most entertaining speaker, with a thorough and practical knowledge of orchard work. At the evening sessions his talks were illustrated with lantern slides, showing orchards and gardens, fruit-picking and fruit-packing scenes, and other details connected with the handling of fruits and their culture.

At every meeting the growers evinced a desire to master details. Every question had a definite and sound purpose. Frequently, experienced local men volunteered advice that would help others to avoid mistakes. Secretary C. E. Fisher, of St. Catharines, always was on hand. At Winona, Robert Thompson, of St. Catharines, presided in the afternoon, and J. H. McNeely, of Stony Creek, at night. Mr. Thompson also had charge of the afternoon and morning meetings, at St. Catharines, while Mayor Campbell was chairman in the evening.

National Bureau of Breeding.

The anti-gambling legislation—which is almost tantamount to saying the anti-racing legislation—adopted by numerous States of the American Union, is having the effect of discouraging the breeding of Thoroughbred horses in the neighboring Republic, and a large number of breeders of the English blood horse are closing out their studs, or transferring them to Europe and Canada. The opportunity thus offered to infuse a strain of Thoroughbred blood into the light-legged horse stock of Canada seems to have appealed to Mr. Ryan, of Montreal, a newspaper man of some means, who is and has been for some years extremely friendly with a large number of leading Thoroughbred owners in the United States. In order to procure and disseminate Thoroughbred blood, Mr. Ryan has interested a number of his friends, and organized what he calls a National Bureau of Breeding, the object of which is to place Thoroughbred stallions in various quarters of the Dominion, except in those counties where privately-owned Thoroughbreds already stand for service.

Quixotic as the scheme appears, we have been assured that it is bona-fide and genuinely public-spirited in its aims. It appears, however, rather to have outgrown the original intentions of its founders, and those behind the enterprise are now looking to the Dominion, and may, perhaps, later appeal to the Provincial Governments for aid.

On March 4th, a deputation, consisting of Mr. Ryan, a number of horsemen interested in the light-legged breeds, and a large contingent of Members of Parliament favorable to the work of the Bureau, waited upon Hon. Sydney Fisher, Minister of Agriculture, and asked for a grant of \$25,000 (not \$50,000, as appeared in the daily papers), contingent upon Mr. Ryan being able to put in service this year 50 Thoroughbred stallions in different parts of Canada, to be placed in the hands of reliable farmers throughout the country, on certain very easy conditions prescribed, all accounts and expenditures to be subject to the close supervision and control of the Government, all horses, to be of a class suitable for crossing with cold-blooded mares, and to be subject to the inspection and approval of experts appointed by the Department of Agriculture.

The representations made to the Minister were that it was possible, under existing conditions in the United States, for the Bureau to obtain, free of charge, or at very low prices, a considerable number of valuable Thoroughbred stallions which could be advantageously used in the improvement of the light horse stock in Canada. Mr. Ryan said he already had some sixteen horses, many of them very valuable, which had been donated to the Bureau entirely free of charge, and he felt confident that a good many more could be obtained on the same favorable terms. Mr. Ryan

while apparently regarding with favor the objects of the deputation, withheld his decision, pending fuller consideration of the matter.

Grain in Farmers' Hands.

Reporting on the quantities of grain, hay and roots on hand in Canada at the end of February, and the condition of the live stock in the country at that date, the Census and Statistics office, at Ottawa, has estimated the amount of wheat then in farmers' hands in the whole Dominion at 20.22 per cent. of last year's crops, which would be 22,747,000, out of a total of 112,434,000 bushels. Of oats, there was 43.62 per cent., being 109,222,000, out of 250,377,000 bushels. Of barley, 33.56 per cent., being 15,692,000, out of 46,762,000 bushels. Of buckwheat, 29.05 per cent., being 2,078,000 out of 7,153,000 bushels. Of potatoes, 44.10 per cent., being 32,542,000 out of 73,790,000 bushels.

In the Provinces of Manitoba, Saskatchewan and Alberta, the quantity of wheat in farmers' hands at same time was 18.93 per cent., being 17,391,000 out of a total product of 91,853,000 bushels. Of oats, 45.93 per cent., being 44,425,016 out of 96,718,000 bushels. Of barley, 33.68 per cent., being 7,722,000 out of 22,926,000 bushels.

The condition of live stock in the Dominion at the end of February was rated at 81.40 for horses, 78.70 for milch cows, 73.79 for other horned cattle, 78.32 for sheep, and 74.34 for swine, 100 being taken as a standard for comparison.

Duty on Tin Plate Again Proposed.

The proposition to foster a tin-plate industry in Canada, which aroused such vigorous opposition a year or two ago from dairy, agricultural and other users of tinware, has again been put forward. Tin plate is now manufactured intermittently on a small scale at Morrisburg, Ont., and, according to an Ottawa despatch, the infant industry is seeking the imposition of a protective duty on tin plate, galvanized plate and block plate from Great Britain and continental Europe. It is admitted that the anti-dumping clauses of the Tariff Act now give protection against imports of American material, but there is no protection from British imports, tin in blocks, pigs, bars, plates or sheets being scheduled free. So, to establish a tin-plate industry in Canada, Canadian users of tinware are asked to submit to a duty on tin plate, calculated to increase the prices of the raw material, and thus indirectly, in all probability, the cost of many useful articles manufactured therefrom. The effect would reach every farm home in Canada, as well as the dairy, canning and other industries of vital concern to large and growing sections of the agricultural community. Is the whistle worth the price? A letter or post card to the Member at Ottawa will express your convictions on the subject.

\$200,000 a Year for Protection of Crossings.

The bill dealing with the level-crossings problem, recently introduced into the House of Commons by the Minister of Railways and Canals, has met with favor. It provides (1) that a sum of \$200,000 be appropriated each year for five consecutive years, dating from April 1st, 1909, as a fund to be applied, under the authority of the Board of Railway Commissioners, to the protection of existing highway crossings of railways; (2) that the amount contributed from that fund shall not exceed 20 per cent. of the cost of the crossing protection, and that the balance be apportioned to the railway and corporation, according to decision of the Railway Commission; (3) that payments shall be limited to crossings of not more than four tracks; (4) that not more than three crossings in one municipality in one year shall receive contributions; (5) that crossings hereafter constructed shall be protected at the expense of the railway companies; (6) that the Board shall have power to order any municipality to contribute a portion of the cost of protection.

Conditions in the seed trade in Ontario have so far been found pretty good, said T. G. Raynor to "The Farmer's Advocate," in the course of a recent inspection trip. Mr. Raynor also reports that he has never found more general interest in Farmers' Institute meetings than in those he has attended this winter. Keen interest is evinced in the weed question. Alfalfa is being sown in bushels where three or four years ago it was used by pounds. While not all are succeeding, a larger proportion of success is experienced thanks to the diffusion of information.