

probably effect an improvement in future crops.

The next question brought out was the need for bringing more forcibly before the farmers the value of seed selection and plant improvement. Several of the members stated their experiences along this line and showed that seed selection would amply repay both time and money spent on it.

VEGETABLE TESTS.

The meeting was called to order at 8.45 on Tuesday morning, and the report of the treasurer was read by Prof. H. L. Hutt. The report of the nominating committee was then read, and the following officers for 1907 were elected:

President—J. M. McCallum.
Vice-president—A. E. Shuttlesworth.
Directors—Hon. Nelson Monteith, G. C. Creelman, G. A. Brodie, G. A. Putman, J. O. Laird and L. A. Bowes.
Auditors—H. S. Arkell and R. W. Hodson.

A committee was appointed to meet a committee from the Vegetable Growers' Association for the purpose of considering the best methods of carrying out tests with vegetables in connection with the Experimental Union.

Prof. H. L. Hutt showed that before any work along the line of conducting experiments could be carried on there should be a firm basis on which to work. Experimental work had been carried on with tomatoes by the Horticultural Department of the O. A. C., Guelph, and the professor stated that he would be pleased to give the results which he obtained to the Experimental Union, so that they might have something to start on.

R. F. Holtermann suggested that the work on honey be incorporated in the annual report of the beekeepers' association. He also referred to the percentage of formalin in honey at different seasons of the year, and also on its action on the keeping quality of honey.

FARM FORESTRY

Mr. E. J. Zavitz next reported on the work being done along the line of redeeming waste lands. Farm forestry, he said, was mainly concerned with the care of the wood lot, replanting waste land, and the formation of protection belts or clumps. Waste land planting is unlike orchard planting, and can be done with a very small outlay of labor and expense. The plants used for this planting are very small, and are easily healed in. Mr. Zavitz then gave particulars for two different styles of planting, but suggested the following as being the better method: The ground in the portions of the field which were covered with grass and weeds, a very light furrow was skimmed out, the plant being placed on the side nearest the thrown out sod. This protects the plant. Planting holes were made by driving in the spade and moving it back and forth. The plants were firmly inserted and covered by a boy who carried plants in a pail half filled with muddy water in which the roots of the plants were submerged. The plants used were from eight to twelve inches high. The plants were placed about five feet apart in the row and the rows five feet apart, which means that one acre will take 1,742 plants. The evergreens are best suited to waste land planting, but on the better part of such land hard woods can be used to profit, although for the average waste land planting,

native white pine gives promise of being most useful.

COMMERCIAL FRUIT INTERESTS

As Mr. A. McNeill, Chief of the Fruit Division, Ottawa, was absent, Mr. Robt. Thompson, of St. Catharines, opened the discussion. He stated that the only reason that any other province or county ever beat Ontario in the market was because our growers and packers were not careful enough in packing and grading the fruit. There should be central packing houses where the growers could take their fruit direct and have it graded and packed there. In this way Ontario fruit growers could put their fruit of uniform quality on the market.

Mr. A. E. Sherrington, of Walkerton, stated that Ontario fruit growers grew too many varieties of apples; that if they stuck to the standard varieties, such as Spiced Kings and Baldwins they would have good shippers. He strongly recommended co-operation in packing and marketing, and that growers look more toward the West for a market.

CO-OPERATIVE FRUIT TESTING

Prof. H. S. Hutt gave a brief outline of the history of this work and its great growth. Last year there were over 1,500 experiments carried on, and this year over two thousand experimenters are working and reporting on results. Material for carrying on experiments will be mailed free of charge to any party applying for them to the horticultural department of the college.

Prof. Hutt then gave the result of many experiments carried on, the majority of which were very successful. Apple trees were sent out this year for the first time; different varieties for Northern and Southern Ontario. A resolution was moved by W. J. Brown to provide for post-graduate work at the O.A.C. along these lines, so that our men may specialize here instead of going to the States to do so. The motion was seconded by Prof. Hutt and carried unanimously.

GRAINS AND ROOTS

Mr. J. Buchanan reported on the experiments carried on last year and of the results obtained. He spoke chiefly on the barley and oats, and summarized the other experiments by use of a chart.

The two-rowed barley of the Duck-bill class is of high protein content and most suitable for feeding, the grain being long and standing well up. The Chevalier class, generally used in England for malting purposes, is higher in starch content. During the past season peas had not been used in any mixtures for experimental work, as they had been a failure other years.

PLANTS AND ANIMALS

Prof. W. M. Hays, Assistant Secretary of Agriculture at Washington, D.C., brought greetings from the United States Department of Agriculture, the State of Minnesota and the Animal Breeders' Association, which he advised all members of the Union to join, and promised that a convention would be held in Canada at an early date. He stated that as in animal breeding to produce good stock the parent stock must also be carefully selected, so it is in plant breeding.

Prof. Hays gave some very interesting figures resulting from the increase in crop yield brought about by plant selection and breeding of the seed. He also outlined some of the plans of the Minnesota Experiment Station, whereby public money is to be used in special seed plots on pri-

vate farms, these seed plots to be used for breeding plants.

Hon. John Dryden then spoke a few words, outlining the work from its beginning to the present day.

QUESTIONS AND ANSWERS

Wheat or Rye for Feeding

Would you please answer the following questions through your paper:

(1) Is rye harder on sandy and gravelly soil than wheat when they are both fed to live stock and the straw used for bedding and the manure all returned to the land? (2) Which is best for a nurse crop when seeding with clover—rye, wheat, oats or barley? (3) Will stock derive as much benefit from oats run through the cutting box without being threshed, as they will by threshing them and feeding them separate or ground? —C. S. F. Kent Co., Ont.

(1) When rye or wheat are grown, fed, and the manure returned to the soil, neither will prove very hard on the soil. Any soil, gravelly, sandy or otherwise, will improve in condition under treatment of this kind. A sandy or gravelly soil should prove very suitable for growing either. (2) Barley first, next oats, then wheat or rye.

(3) Stock will derive as much benefit from oats unthreshed and run through the cutting box as if they were threshed and then fed separately. Very often, however, the business can be done to better advantage by threshing them, as one might desire to use part of the grain or a part of the straw for other purposes. Straw may be required for bedding, or grain to be ground in mixtures with other grain for feeding. Some animals do not take kindly to cut straw. It is very often an advantage to have the crop threshed.

Out of Condition

My horses are in poor condition. They seem to be hide-bound and their skins are rough and dry. When standing in the stable they twitch their tails but do not pass any worms. Am feeding hay and oat sheaves (three to a feed).—Subscriber.

Your horses may be getting more rough feed in the shape of hay and oat straw than they can properly digest, and it would well to weigh the amount you feed in one day and see how much it is. The proper amount is based on the average of one pound hay for each hundred pounds of horses' weight. Thus a 1,200 pound horse should get about 12 pounds of hay a day. If seen or flaxseed would be useful for your horses, and if the seed is not available, the raw oil may be given as a regular addition to the feed in doses of a wine-glassful.

Foundered

I have a twelve-year-old mare that is very lame. Her feet are very hot and she wants to lie down a great deal. When she gets up she can scarcely walk for a while.—J. K. S.

This is a disease of the front feet affecting the fleshy connection between the hoof and the bone. Unless the horse gets over it in two or three days it is usual for it to remain lame and sore in front to a greater or less extent for the rest of its life. If you can't get her better and made her stand in a tub of hot water when