



Two young Jersey heifers recently sold by Dentonia Park Farm, Toronto, to the Ontario Agricultural College. They were imported in dams and are of exceptionally good breeding. Their sire was recently sold for \$7,500.

was a good food, especially if mixed with the sugar beet molasses.

#### EVENING SESSION

Owing to the unavoidable absence of Hon. John Dryden, Dr. Mills took the chair at the Union meeting in the college gymnasium. In his opening remarks he compared the Experimental Union to a large stream which had only a small beginning, and gave Prof. Zavitz credit for being the chief factor in causing its growth.

Prof. Day then gave a short address on the progress of the Ontario Agricultural College. He first referred to the development along the line of increased accommodation by means of new buildings. Chief of these was the new McDonald Institute buildings, which are already far-famed, and in which a great work is sure to be done in years to come. He then referred to the courses now given and the intention of the management to make junior matriculation standing compulsory before a student may take the course for B. S. A. degree. He then spoke of changes in the staff, but pointed out that the change was more due to addition of new members than dropping out of the old ones.

Then Miss Martha Van Rensselaer, of Cornell University, gave an excellent address on that all important subject: "The Farm Home." It was a good idea to institute a college of domestic science in which to train young women. There were many questions which every young farmer should ask himself before choosing a life partner, and the farmer's wife need never be apologized for because she is such. The boys and girls of the farm are the boys and girls who are making their mark in the world. The home should be so elevated that the community will think it the happiest place on earth.

Prof. C. C. James, Deputy Minister of Agriculture, gave an address on Ontario farm statistics, and made an apparently dry subject exceedingly interesting and instructive. He showed how the information was obtained and the importance of it to the farmer, whose occupation was the chief one of Canada. Referring to the increase along lines of Agriculture he gave the Ontario Agricultural College credit for having much to do in bringing this about.

Mr. W. J. Spillman, Agrostologist, Department of Agriculture, Washington, D. C., spoke next on "Farm Management." He classed the Experimental Union as the best of its kind on the

continent. The United States farmer wants nothing to do with small plots, but many were now copying our idea. Farmers should not make their work hard. A pound of brains is worth a ton of muscle on any farm. He must be one who reads, uses executive ability and plans things. The best way to show a farmer what to do is to select some specially successful farmer, and by using his history and methods tell him to go and do likewise.

The last speaker, Mr. W. H. Mal-drew, Dean of the McDonald Institute, gave a short closing address on his favorite subject: "Nature Study," and pointed out that that study based education on common-place experiences, and fitted us to live here and now.

#### TUESDAY MORNING, DEC. 8TH

Prof. Harcourt, of the O. A. C., explained the composition of some of the common insecticides used in killing the potato beetle. Most of them rely on arsenic in some form to give the poisoning effects. An analysis of the new insecticides shows that they contain a very low percentage of poison compared with the pure Paris green, and that it is cheaper to buy the latter and dilute to suit. The addition of lime to the Paris green solution helps to hold the poison on the leaf. Bug Death has proved of value both as insecticide and fungicide. In fact it is as good as Paris green as an insecticide and better than Bordeaux Mixture as a fungicide, according to experiments during the last two seasons.

Owing to the absence of R. D. Craig, the report of co-operative Experiments in Forestry was read by Mr. M. Ross. At last year's meeting it was decided to ask the government to supply a nursery at the O. A. C., in which young trees could be grown with which to re-forest parts of old Ontario. This was not granted, but the government magnanimously offered land in northern Ontario for this purpose, which was, of course, not accepted. A committee was appointed to report on what they deem most advisable to do, and later reported in favor of again broaching the government with the very important subject.

Prof. Zavitz then dealt with the co-operative experiments with artificial fertilizers. The result is good that good barnyard manure is as good as any, and if that important fertilizer is carefully protected and our wood ashes kept on the farms we need no artificial mixtures.

The report of experiments on small

fruits was then given by Prof. Hutt. These experiments have been conducted for ten years now, and each year brings a larger number of experimenters. In this way the best varieties of small fruits are distributed over the province, and many who never would have bothered with these luxuries become interested and receive the benefit. In strawberries, Clyde is the most productive, but Tennessee Prolific is a more popular variety. Van Deman is a good early berry, but not vigorous enough. The Marlboro and Columbian lead the Cuthbert in raspberries sent out, but the last is most popular. The Golden Queen is an excellent yellow variety. In black raspberries Palmer holds first place, while in the black or thimble-berries, the Agawam is the general favorite and very hardy.

#### AFTERNOON SESSION

Some business was dispensed with before the regular programme was begun. It was decided to bring before the Dominion Government the importance of having certain foods, now sold on the market, stamped, and its composition marked and guaranteed.

G. H. Clark, B. S. A., Ottawa, then spoke concerning the MacDonald-Robertson Seed Growers' Association and explained that such an organization was as important as a stock breeders' association. The Dominion and Ontario Governments have both encouraged the use of high grade seeds.

In the discussion which followed, L. H. Newman, B. S. A., pointed out that the careful selection of seed was as essential to good crops as was good cultivation.

#### GRAINS AND POTATOES

Prof. Zavitz then followed with a report on results of co-operative experiments with grains and potatoes. In oats, the Siberian gave slightly better yield than the Liberty, but was not so popular. The Alaskan is a very early oat and suitable for growing in hay for mixed feed. The Oderbrucker barley was ahead of the Mandchouri for the first time last year, but the latter again was the best this year. Black Hullless gave better results than White Hullless. The three varieties of spring wheat sent out were, Emmet, Wild Goose and Red Fife. The yields averaged: Emmet, 45.3 bus.; Wild Goose, 18 bus., and Red Fife, 17.7 bus., per acre. Emmet retains the chaff when thrashed, but has lower percentage than the hull of oats and is thought to be better food crop. In peas, a brown pea, the Early Britain, gave the largest yield, with Canadian Beauty second. Two varieties of buck-proof peas were tested, but the weather was unfavorable; the Egyptian gave only 16.3 bus. and the grass pea 13.8 bus. per acre. Experiments with Soy beans, place Early Yellow ahead of Medium Green. These make a very rich food for stock. Corn grown for grain resulted in King Philip maturing best and being the favorite. North Star, Yellow Dent and Compton's Early were also good. Three comparatively new varieties were sent out. Imperial Amber ranked highest, Buda Pesth second and Turkey Red third. In sweet corn, Crosby and Country Gentlemen are the leading varieties. In potatoes, the early, one medium and one late variety was sent out. The late variety, Empire State, gave the best yield, and the medium, Burpee's Extra Early, second. Of the three early varieties the Early Pinkey was best, Early Ohio second and Stray Beauty last. This year potatoes planted in hills gave better results than those on the level.

#### GRASSES AND CLOVERS

Mr. N. J. Spillman, then spoke on "Grasses and Clovers for hay and for" (Continued on page 908.)