

in the fall, followed by surface preparation for a seed-bed, without plowing in the spring. Mr. Joseph Brubacher asked whether early or late plowing of clover seed was preferable, to which Mr. Rennie replied that "early plowing gives the best results, because the sod becomes more thoroughly decomposed and mixed through the soil."

As checks to beet-growers amounting to \$80,000 had been mailed the previous day, there were some interesting discussions on, and comparisons of returns for the season's crop. Messrs. Frank Shuh, Joseph Brubacher, and others, announced the returns which they had received, and gave figures of the cost of production of the crop, showing profits over and above all cost of production amounting to \$20.00 per acre.

At Waterloo, Dr. Shuttleworth explained that the typically-formed sugar beet is the most profitable to the grower. Its length is about twelve inches, and its diameter at the widest point about one-third of its length, free from side roots, well tapering to the tips. Blanky fields, late plowing of sod, cold soils, spring manuring with long, undecomposed strawy manures, have a tendency to produce overgrown, unshapely and unprofitable beets. Mr. Martin Bauman pointed out that overgrown, unshapely beets are often to be found on headlands, which he supposed to be due to blanks caused in turning during cultivation. Mr. Cressman remarked that he had in his field this year on a higher and drier part somewhat unshapely beets that had tested better than more typically shaped beets on lower ground, somewhat wet. Mr. Cressman asked the cause of that. "The cause," Dr. Shuttleworth replied, "was probably due to the fact that the higher and drier ground had produced a greater degree of ripeness."

Mr. Rennie's address on the special preparation of land for the best results, and the profits to be derived from a sugar-beet crop, were listened to with close attention. During the course of his remarks the question was asked by the chairman whether the manurial value of straw should not be credited to the profits of grain-growing, in reply to which Mr. Rennie asked the audience the question, "Which do you consider possesses the higher manurial value—the straw of an acre of grain or the tops and crowns of an acre of sugar beets?" The unanimous opinion was given in favor of the crowns and tops of the sugar beets. "Yes," said Mr. Rennie, "the manurial value of a ton of straw does not exceed more than \$2.89, while the manurial value of tops and crowns of beets considerably exceeds this average." All agreed that the crops of grain following beets show in marked degree that there is a high manurial value added to the soil by the cultivation of the beet crop.

Replying to Mr. Benj. Brubacher as to whether there were not greater profits derived out of grain farming through the feeding of stock, Mr. Rennie said that the growing of beets enabled farmers to buy grain to feed stock, which could often be purchased for less money than the cost of production.

At Centreville, Mr. Jacob B. Shantz explained, that his crop of some twelve acres were large beets, not harvested very early. "The tests," he said, "varied from 14.6 to 16.2. A portion of my patch was not harvested till away on in November, which I thought should have tested somewhat higher than the portion that were harvested somewhat earlier, though the test of these later harvested beets varied from 14 to 15.4. Can you give me an explanation as to the cause of this lower test?" Replying, Dr. Shuttleworth used as an illustration his chart, displaying the occurrence of a second growth, which often happens in moist warm weather to ripe beets, late in the fall. "Your beets," said Dr. Shuttleworth, "were evidently ripe at the time of harvesting the bulk of your field, but before these of which you speak which tested lower were harvested, a second growth had probably occurred to some degree, which is always accompanied by a decrease in the sugar percentage."

Mr. J. R. McCormack remarked that a gentleman had called his attention to the absence in the beet contract of any reference to the pulp, and asked why it was not mentioned. Dr. Shuttleworth explained that pulp was never mentioned in the beet contracts, and is not mentioned in the contract for 1905. The reason for this is that the pulp properly belongs to the company, but is given to the beet-growers in proportion to the beets delivered, providing they desire to take it. This has been announced fully in the press, and in the circular sent out accompanying the contract.

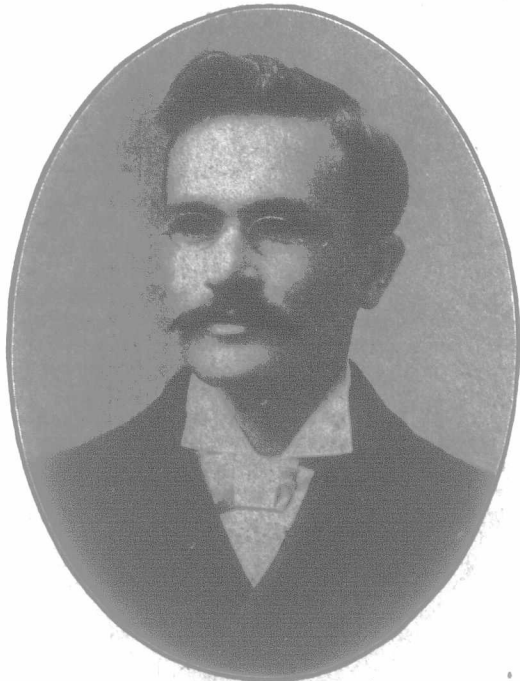
Before the meeting closed it was announced by Dr. Shuttleworth that The Ontario Sugar Co. had decided to distribute free of charge thirty barrels of molasses among thirty stockmen, conditionally, that the parties receiving the molasses would report in writing to the company the results of the feeding of molasses. The plan adopted is to have each of these meetings of the beet-growers, which are now being held throughout Waterloo County, name at least two stockmen, by whom the molasses will be received, and a report of the feeding results made. J. G. Hurst and George Wright, of Conestogo; Tilman S. Shantz and Ira Bauman, of Waterloo; August Janzen and Jacob B. Shantz, of Freeport, were selected at the above meetings to make the feeding tests with molasses.

Beet contracts this year are being made voluntarily much more freely than in previous years. The company have made contracts for fully twice as much acreage as last year at this date.

Farmers' Sons Must Advance.

By D. Derbyshire, M. P.

In order to succeed in the pursuit of farming, the farmer's son should in early years be taught to work, which must be regarded as the foremost of life's great lessons. The work should be of a practical character, and be made profitable by adopting advanced methods. It is by the observance of this latter principle that the Province of Ontario has won her prosperity as an agricultural country, the value of her farm property and her products sold showing enormous in-



F. C. Elford.

Newly-elected president Ontario Agricultural and Experimental Union, and chief of the Poultry Division, Ottawa.

creases during recent years. The crucial problem in agriculture is to sustain the fertility of the soil, and that this has been measurably accomplished by our excellent system of agricultural education is the best possible evidence of its soundness. The advantage of teaching agriculture in the public schools is that it interests the youth of the country in the scientific side of farming, and shows them that they do not need to go to the "professions" to exercise their intellects. This is one of the most effective means of keeping our boys on the farm, who are by nature suited for that vocation. See that they attend the Agricultural College and get a course, and then every year afterwards drop around for a week or ten days to learn if other useful advanced ideas

rounded out by the Macdonald Institute, where instruction is given in domestic science, manual training and nature study, furnishing education for farmers' daughters which will fit them for companionship with the scientific farmers which the other departments of the college are turning out, and, through the school teachers, moulding the public-school instruction of the country.

DAIRY.

Suggestions to Dairymen and Merchants

A Glasgow merchant, writing to the Montreal Trade Bulletin on the British market for butter, says:

"My firm have had regular shipments from August on to the present date, and the quality in general showed a marked improvement over any previous year. Those butters salted at two and two and a half per cent. arrived in specially fine condition, and owing to their dry and firm texture, were much preferred to the heavier-salted article, which, naturally, showed considerably more moisture. There has been less tendency this year to speculate, and the retail trade, therefore, have received, to a much greater extent than previously, strictly new-made butter, and not goods that have been lying for several months in cold store."

"If those interested in the butter trade in Canada could only realize how detrimental to the interests of the Dominion in general, and to themselves in particular, is the system of placing butter in cold storage against a future rise in the market, they would be less eager to cater for that business. Cold-stored goods are seldom sold here as such, but are offered simply as 'finest creamery butter,' with the result that although the speculator often makes a temporary handsome profit, the general standard of quality of Canadian butter is lowered in the eyes of the general public. Could your Government institute some system of stamping the boxes with the month on which the butters were made, it would have the effect of appreciating the value of new made goods, and considerably depreciating that of goods in cold store, as the latter would then be sold for just what they were."

"In previous years I have noticed in odd lots of Canadian butter, a number of crushed flies scattered throughout the goods, but this year, in several shipments, I notice the fault is much more exaggerated. They, at least, would average one fly to each square inch of butter. Another complaint I have had from a number of retailers this year was on account of small lumps of salt, about the size of a large bean, being prominent right through a number of boxes of several shipments. This, of course, could only be due to the salt not having passed through a sieve when salting the butter."

"In several instances my attention was called to dirt on the sides and top of the butter, caused apparently by the parchment paper having been stored in some dusty corner."

"The consuming public will, in most cases, overlook a slight temporary defect in quality, as that is sometimes beyond the control of the individual; but what they will not excuse is dirt or carelessness of any sort, especially in such a delicate article as butter."

"The Danes will continue to occupy the premier position in this market for high-class quality, regularity of flavor and texture, and cleanliness in packing, and it will only be by the buttermakers in your country giving the fullest attention to every detail, that they may expect to make any headway, or even to hold their own with that enterprising and capable people."

Premiums.

"I have received the reading glass, and microscope, and like them very much." They are all that I expected.
ROBERTSON BROS.
Simcoe, Ont.

I beg to acknowledge, with thanks, the premium wrist-bag that you sent me. Am very much pleased with it.
J. L. ROSEBRUGH.
Waterloo, Ont.



Home of Jas. Irving, Dundas Co., Ont.

Photo by C. C. Pelton; awarded second prize in home photo competition.

are not being worked out. The Agricultural College at Guelph is at the basis of the fabric of agricultural education in Ontario, and the approbation which it has won in the country was well expressed by Prof. Amass, of the Maryland Agricultural College, and director of the Maryland Farmers' Institutes, who, after visiting twelve agricultural colleges in the United States and Canada, unhesitatingly pronounced the institution at Guelph the best for educating the farmer's son for the farm. The institution is now being well