

different varieties of corn to grow, when to cut it, and how to store

AN HOUR'S INTERMISSION

was here taken for dinner, and then the audience came back and again took up the cheese and butter question. The afternoon was taken up with addresses from C. E. Dalaire, Prof. Nagant, Rev. F. Côté and Mr. Ayer. M. Dalaire delivered a lecture on agricultural matters generally. He encouraged them to continue to watch improvements, and adopt such as proved to be good. Their politics would not interfere with agricultural pursuits, and whatever their politics might be they could rest assured that the prosperity of the country must rest upon the success of the farmers. The address was full of matter which people call good, sound "horse sense," and it was listened to with marked attention by the audience.

Prof. Nagant performed an interesting experiment. It was making butter by a new process of churning: namely, agitating the milk by forcing a current of air through it. Butter was secured after ten minutes. The milk was placed in a glass cylinder and then a current of air was forced through it from an air pump, it first having been purified by passing it through a purifying reservoir. The current of air kept the milk in a state of agitation resembling boiling. By this process butter was obtained. Prof. Nagant also explained the general properties of milk, its chemical composition, etc. As for the churn, he said a size was manufactured which would hold twenty gallons of milk, and it had been operated very satisfactorily. The Rev. F. Côté had used one of these churns and had found it to be good. However, he had one objection. So far, they had not been able to obtain more than three-fourths of the butter-fat the milk contained: but that might be the fault of those operating the churn.

Mr. Ayer was called upon for a second address. This time he talked about butter and the way to prepare it for market; that was the English market, for he spoke of butter intended for export. One of the weaknesses of Canadian butter was the manner in which it was packed and worked. He did not favor working machines. No doubt good butter could be made in them, but on the whole he favored simple hand working. Then pack the tubs full. Don't leave a space that would hold three or four pounds, and don't cover the top of the butter with pictures. Leave it as smooth as possible. Use clean tubs, as a soiled package hurts the sale of the butter. New Zealand and Australian butter was packed in square packages in order to save space in shipping. Each side was encased in parchment paper, and that kept the butter moist and prevented the pickle coming through the case and discoloring it. He advised the adoption of this practice here. He had fault to find with the Canadian tubs. The covers were not strong enough. The band was too narrow, and if it became broken in shipping there was nothing left to keep the cover in its place. There should be a double cover or an inside fastening. For the English market, also, they should pack their butter in the large size tubs. There was also a demand for a limited quantity of butter packed in headed kegs.

Mr. Ayer was recalled and asked his opinion respecting the sale of skim milk cheese. A limited quantity could be sold at a small reduction, but let the quantity increase and the price would drop down at once. If a small quantity of these were made in the early winter, don't make them of the regular size

and don't sell them as full cream cheese. For the regular trade let them make only first-class, full cream cheese, and then they would build up a paying trade on a sound basis.

The secretary read a letter from the Hon. Mr. Nantel, expressing regret at not being able to attend the convention. In his letter he referred to the importance of instructing the young in agricultural matters.

The election of officers resulted as follows:

Honorary president, Hon. P. B. de la Bruere, St. Hyacinthe; honorary vice president, N. Bernatchez, M. L. A., Montmagny; president, Rev. Abbé P. Montminy, St. Georges de Beauce; vice-president, S. A. Fisher, Knowlton; secretary treasurer, Emile Castel, Di rectors—Arthabaska, T. C. Cartier, Kingsay, French village; Beauce, Philius Veilleux, St. François, Beauce; Beauharnois, Robert Ness, Howick; Bedford, J. A. Hayes, Shelington; Charlovoix, E. A. Barnard, Quebec; Chicoutimi and Sagouay, E. Paradis, Bagotville; Iberville, M. Monet, Mount Johnson; Joliette, J. J. A. Marsan, L'Assomption; Kamouraska, J. C. Chapais, St. Denis-en bas; Montmagny, N. Bernatchez, Montmagny; Montreal, Alexis Chicoine, St. Marc; Quebec, L. B. Barnard, Cap Santé; Richelieu, J. L. Lemaire, La Baie; Rimouski, J. de L. Taché; St. François, D. O. Bourbeau, Victoriaville; St. Hyacinthe, L. T. Brodeur, St. Hugues; Terrebonne, Frs. Dion, Ste. Thérèse; Trois-Rivières, L'Abbé Gerin, St. Justin.

Mr. Emile Castel, of St. Hyacinthe, has been appointed secretary to succeed Mr. J. de L. Taché, resigned.

During the convention Mr. Vaillancourt called attention to a circular issued in Bristol, Eng., referring to what they called

FRENCH CHEESE.

The Convention passed the following resolution.

Be it resolved: "That the Dairy Association learns with surprise that the following resolution has been proposed for adoption by the Bristol (England) Provision Trade Association:

"Cheese made in the French section of Canada may not be tendered in fulfilment of a contract for 'Finest Canadian.' The seller is entitled to deliver cheese made in any part of Canada, other than the French section."

That the principle of classification adopted in this proposal, certainly unjust, is founded on former prejudices, which have now no foundation.

That there is now made in the French part of the province of Quebec a large quantity of cheese which bears successfully comparison with the best cheese of the whole Dominion.

That in place of such classifications it would be more proper to judge on its merits this cheese, which is made from milk of greater richness than that of any other section of the Dominion.

That the Provincial Dairymen's Association would draw the attention of the English Boards of Trade to the organisation of syndicates now in operation in the province of Quebec, which organisation secures the constant supervision of cheese-making by inspectors of experience to a degree that is not attained elsewhere.

That this resolution be at once transmitted to the Hon. Minister of Agriculture with the request that he transmit it by cable to Prof. Robertson, who is now in England, so that the latter may take all necessary steps to remove the false impression evidenced by such a proposition."

During the evening session Mr. J. C. Chapais delivered an address on the

possibilities of the province of Quebec as a dairy country. Before the Convention came to a close the President, the Rev. Abbé Montminy, thanked the DAILY STAR for its full reports of the proceedings of the Convention.

The next Dairy Convention will probably be that of the District of Bedford, which will meet at Cowansville most likely during the last week of January.

Report of the Ensilage and Economic Stock Feeding Association of Central Canada—Interesting Resumé.

The report of the first annual convention of this association, held in Montreal, 17th March, last, is one of the most instructive and valuable documents ever published by the Government.

It is for free distribution to farmers and dairymen, and we advise all our readers to possess themselves of a copy, which they can do in either English or French, by applying to the Department of Agriculture. But as many may fail to do so we present a few extracts of the greatest importance to all who wish to make farming pay. Professor Robertson's addresses were worth their weight in gold to the ordinary farmer, being devoid of all unexplained scientific technicalities, practical and to the point. He says:—

In following farming to make money, the farmer must remember that he has a three fold object in view; first to make money by providing food for the people; second, to make money by maintaining the fertility of his fields, so that he shall have some stock-in-trade to go on with, in business, in future years; and third, to make money by giving occupation to men for twelve months, and not for only six in the year. These three objects are the furnishing of food for the people, the maintaining of the fertility of the soil, and the giving of occupation at paying wages during the whole year. That system of farming implies the keeping of large herds of cattle on all the farms in Canada. To provide food only in the form of cereals, means the exhaustion of the soil, it means occupation, so far as pay is concerned, for six months of the year, with six months of living on the income of the previous six months.

The professor next exhibited a chart to show the exhaustion of the soil by various crops and argued thus:—In all farming-cultivation of the soil for the obtaining of food—the crops which grow on the fields take out of the soil three substances, which are becoming rather scarce in our Dominion. As soon as land is depleted of these substances, it becomes a barren waste; but when it contains these substances in available condition, it is capable of giving back large crops in return for the smallest outlay. These three substances are Nitrogen, Phosphoric Acid and Potash (1),—to which Mr. E. A. Barnard who so admirably edited the pamphlet, appended the following very important footnote:—(1) Lime is also indispensable; it is not generally found in abundance in our soil, and therefore needs to be supplied on most farms in this province.

Prof. Robertson next explains which are the best crops to grow to keep the land fertile:—Every ton of wheat carries off forty-one pounds of nitrogen, fifteen pounds of phosphoric acid and ten pounds of potash. Pease and beans belong to the class of plants which have the faculty of appropriating most of their nitrogen from the atmosphere, therefore while the sale of them carries a large proportion of nitrogen off the

farm, the growth of them fixes nitrogen from the air. That is the advantage of growing peas as a fertilizing crop instead of oats or buckwheat;—and thus on the advantages of keeping stock:—Every two and a half tons of hay, will carry more off a farmer's land, than two tons of fat cattle; and for two and a half tons of hay he will get, on an average, twenty five dollars, while for two tons of fat cattle he will get two hundred dollars. By the hay method of farming, he gets twenty-five dollars from the same quantity of these elements of fertility, that he gets two hundred dollars from when he grows and sells cattle.

In selling swine, cheese, milk, or fine butter, he sells a less quantity of valuable constituents out of his land than in selling hay. Hay is worth ten dollars a ton, good butter in winter time is worth five hundred dollars a ton, the ton of hay takes some eighty-seven times more of the elements of fertility out of the soil than the butter does.

A farmer can make butter through ensilage with the largest profit at the smallest cost: and instead of growing hay he can grow corn, sell butter and get a far larger income.

Results of experiment of the utmost importance as to ensilage feeding:—Six steers were divided into three lots of nearly equal age and weight, and evidently of similar breeding. The main object of the test was to discover the value of corn ensilage as compared with common hay. One lot of steers were fed on a ration composed of hay, roots and meal; another lot of steers were fed on a ration of corn ensilage, with the same kind and quantity of meal; and the third lot of steers were fed on a ration consisting of corn ensilage, hay and roots, and an equal quantity of meal of the same quality as the other two rations contained.

TABLE.

Ration	Average cost of food per day		Average food consumed per day		Increase in Weight	
	Lb.	\$	Lb.	\$	Lb.	\$
First lot	188	19.23	55.5	4.11	128	15.58
Second lot	179	19.23	60.0	4.21	182	15.58
Third lot	188	19.23	52.8	4.11	128	15.58

All the steers were allowed as much food as they could eat up clean; and the quantity was varied from time to time, as they would eat more or less. It may be mentioned in explanation of the small increase in weight of steer No 5, that he did not thrive well, part of the time. That could not be accounted for satisfactorily. He seemed to be healthy, but, as everyone who has