

contain all the latest information of value to agriculturists, horticulturists, stockmen and dairymen. Special attention will be given to all these departments; also to any new device in agricultural implements. We will continue to give reviews of the various large flocks and herds of the Dominion. In this branch, we ask the hearty co-operation of all the breeders of live stock. Whenever you sell an animal to a Canadian or foreigner induce him to subscribe to the *ADVOCATE*; every number that goes into a new vicinity advertises your business and increases your trade; thus your act is mutually beneficial. We will always be ready to publish such articles as contain information regarding the doings of the various societies, or any just criticisms on the same which are given in a friendly spirit; also stock notes and gossip; in fact all matters which will cause our farmers to take more interest in the societies, and in the improvement of their stock.

Better stock and better farming must be the salvation of the older provinces, and together let us earnestly work to bring this end about.

Adulteration of Lard.

A gross and most injurious adulteration by which farmers suffer and the public health and life are endangered is the mixture of cotton-seed oil with lard, says Henry Stewart. The market value of lard is not only unduly reduced by the excessive product, but the character of the adulterant is dangerous in the extreme. The effects of cotton-seed meal upon cows in calf are well known, for numerous cases of abortion are produced by this food used only in moderate quantities. The medicinal character of the cotton plant, the root especially, is well known, and the use of the meal has been found to result in a similar way. If the manufacture of oleomargarine was put under a ban on account of its supposed unwholesome qualities, that of cotton-seed oil lard should be entirely forbidden, because of its known dangerous character.

Although the purity of lard can, to some degree, be judged by its appearance, yet a more efficient way to detect the adulteration is frequently desirable, and we, therefore, give the following simple method:—

The recent examination of lards made at the Agricultural Department has resulted in the discovery of a test by which the presence of cotton-seed oil may be detected instantly by any dealer or house-keeper. The experiment is as follows: As much lard as can be taken up on the point of a caseknife is placed in a teacup. About a quarter of an ounce of sulphuric acid is poured upon it and thoroughly mixed with it. If the lard is pure, it will coagulate, and there will be a little difficulty in the mixing. If it is adulterated with cotton-seed oil and stearine, the mixture will take place immediately and easily. After half a minute one-fourth of an ounce more of sulphuric acid should be poured upon and mixed with it. The whole process thus far should not occupy more than one minute.

The substance thus obtained is poured into a common test tube, such as may be bought at any chemist's shop for a few pennies. The acid, somewhat colored, will sink to the bottom, and the fatty substance will remain on top. If the lard thus tested was pure, the color of the latter will be that of a light colored sponge, changing in a minute or two to a dark cinnamon color. If it has been adulterated with cotton-seed oil, the color at first will be darker, changing immedi-

ately to a dark brown. These differences of color are so marked that no experience is required to detect them.

Cards might be printed upon which the colors produced by the sulphuric acid reaction for both pure and adulterated lards might be shown; and dealers, by using this test, may prove to their customers in a minute or two that the lard they are selling is an adulterated article. The experiment is simple, and the cost of it almost nothing. The novel thing about it is the placing of the mixture in a test tube, in which the acid may become separated from the fatty substance, thus making the test much more decisive and satisfactory. This was first suggested by Dr. Thomas Taylor, who has extended his experiments to a number of different animal and vegetable oils.

Maritime Correspondence.

New Brunswick farmers are waking up to the importance of keeping abreast of the times in relation to their calling. In Eastern New Brunswick the Sackville and Westmoreland Agricultural Society invited Dr. Twitchell, one of the editors of the *Maine Farmer*, to deliver a course of lectures on agricultural subjects. The Doctor came and gave seven or eight lectures on different subjects, giving a good deal of prominence to dairying, and impressing upon farmers generally the importance of keeping a strict account with the land and the stock. In the western part of the Province a farmers' convention was held in July, papers were read and discussed, and speeches were made, all urging upon farmers the importance of putting more thought and more method into their business, and now within the last few days the Secretary of Agriculture has written a letter to the press in which he speaks as if the New Brunswick Government thought of starting a Model Farm and Agricultural College, somewhat, I suppose, after the plan of the Guelph institution. If the government's finances are in a position to warrant such an outlay, all right; but it will probably be thought, by some of the papers at least, that it will be wise to wait and see some of the fruits of the expenditure now being made in Nappan, N. S., in the interests of the farmers by the Dominion Government. As Nova Scotia has had an Agricultural School for a couple of years, and has just now bought a farm to have in connection with it, New Brunswick, perhaps, does not want to be left behind in furnishing facilities for educating in their particular line those of her sons who wish to become scientific as well as practical farmers.

Col. Blair, who has charge of the Experimental Farm at Nappan, just established by the general government for the benefit of the Maritime Provinces, is hard at work making improvements and trying to get the farm into a state that it may be an educator to all who have an opportunity of visiting it. A twenty thousand dollar contract for buildings has just been given out, and the farm is being completely underdrained with tiles; the latter work is in charge of a practical underdrainer from Scotland.

The spring was late, but when farmers did get to work the weather was fine and a good breadth of crop was put in. The summer has been unusually cold, and a little too dry in the early part of it, but latterly there has been plenty of rain, and at present the crops are all looking well. It was thought at one time that hay would be very short, but it has improved so much latterly that it will probably be nearly an average crop in New Brunswick. In Nova Scotia

it will be better than last year, but not up to an average in Prince Edward Island. All the crops look well but hay, which will be considerably under an average.

There have been no shipments of cattle from here to the English market this summer. There are two reasons for this; the first is, beef has been in good demand for the home market, and the second is, those who went into the business a few years ago lost money, and others are afraid to undertake it until the conditions are changed.

Better Accommodation for the Shipping of Fruit.

The Ontario Fruit Growers' Association, through their President Mr. Alex. McD. Allan, of Goderich, have for some two years been trying to obtain more perfect handling of fruits by our carrying companies. The matter has been freely discussed at their meetings, and the railway and steamship companies have been approached in the matter with more or less success from time to time. For the past two years a test has been carried on between the lines of steamships running from Montreal, and those from New York, and the railways to these respective points. The result of these tests has been upon the whole in favor of shippers dealing for foreign shipments by New York, on account of the better handling of fruits, and especially in that the steamships from New York paid more attention to keeping the fruit compartments cool on the voyage.

While in Montreal the *Gazette* interviewed Mr. Allan on the subject, when the matter was placed in all essential points before the public. As might be expected, the commercial community of the city were anxious to have matters made right with western shippers, so that the trade in fruits should not be lost to the Montreal port. The *Gazette* interviewed the various steamship companies as well as the railways. Only one steamship company would answer the queries of the reporter, and then only in qualified terms. The general freight agents of the Canada Pacific and Grand Trunk contended that they believed their roads handled fruits as rapidly and carefully as the roads to New York, but they did not hold out any encouragement to the shippers that they would do better than they had done in years past. Mr. Allan replied, in a subsequent interview dwelling upon *facts* and not on the *belief* of any shipper. He stated that since the matter had been opened, he had a personal interview with the representatives of the Beaver Line of steamships, and had gone over one of their vessels in part, and made suggestions as to the requirements of shippers. The result of this is, that the Beaver Line will have ready for the early fall shippers of fruit, three of their best vessels fully equipped with the best modern fan system of atmospheric blast, as well as the latest known methods of port ventilation. This Company will also give through rates to all points in Britain and on the continent. They will give bills of lading from the point of shipping at the count of the Company, and not as formerly upon shippers count. Thus the fruit shippers have assured to them benefits that they have been fighting for, and which they will not be slow in taking advantage of. Should the trade demand it, the Beaver Line will also place in their other vessels the accommodation required by fruit shippers. The vessels that will have atmospheric blast and port ventilation ready in about a month are the Ontario, Huron and Superior; three of their finest ships.