

tion to the soil, thereby impoverishing and, too often, ruining the land. And yet, with a more rational system of farming, the quantity of cereals produced could be, at least, doubled, even on a much smaller acreage.

Hoed crops—Roots and Maize.—The total area in hoed crops of all kinds does not exceed 4 oyo of all the land in cultivation. (1)

Now all good farmers know that the soil cannot be kept clean and properly pulverized, so as to produce the largest returns, without hoed crops, or their costly equivalent, summer fallows. In all well farmed countries, the proportion of hoed crops to all the land in cultivation is certainly 10 oyo, and often much more. Maize, or Indian corn, one of the most profitable and easiest grown hoed crops of America, is certainly not sufficiently valued in Canada, although it very properly forms the basis of all farming in even the most northern parts of the United States. Under the right culture, that is, with an abundance of manure, and extensive horse cultivation, and with a proper selection of seed suited to our northern climate, we can easily produce an average of from 75 to 100 bushels of corn per acre, costing the farmer less than 25c a bushel, besides from 3 to 4 tons of excellent fodder, if well cured and properly prepared. As cattle food alone, corn for fodder comes here to perfection, and when cultivated with intelligence and fed in connection with other food, it is the cheapest and one of the best articles of diet for the production of milk, or of flesh in growing animals.

Grasses.—The use of mixed grasses, outside of timothy and clover, is hardly known to our farming community. And yet, what we want, in our pastures especially, is the production of a variety of food, at all seasons of growth, more palatable to the cattle, and more profitable to the farmer.

Raising of Stock.—It can be demonstrated, without cavil, that the cash value of our farm stock in general, and the annual returns therefrom, could be at least doubled, even in a few years: 1st. By better selection; 2nd. By a more rational system of feeding, in summer as in winter. Such a result implies a very possible and attainable increased value in capital, amounting to at least *one hundred and fifty millions of dollars*, and an annual production, over that at present, which would amount to the enormous sum of *fifty millions of dollars*!

Eggs.—No stronger argument could, in my opinion, be used to show how much our agricultural production might be increased by a little fostering care than the production of eggs in Canada. These are so abundant, all over the country, that they form an important element of diet, even in the poorest cottage in the land. And yet, how many farmers count the egg crop as of any account on the farm? Not so, of course, with the good house-wife, who gratefully accepts from her lord and master these her modest perquisites. She feeds a few birds, really of no account as compared with the enormous capital invested in our farm stock, she teaches her children to look carefully after the eggs, and lo! not alone is the whole country abundantly supplied with royal food, but our exports of eggs are 40 oyo above the value of all our exports in horses, or in sheep! Even the fat stock, requiring so many steamers to carry them over to Europe, do not produce over 75 oyo more money than our exports of the so much despised egg crop!

Horses.—Respecting horses, when the demand for really

(1) The census of 1881 gives as improved land 21,899,181 acres, of which 464,279 acres are in potatoes. It does not give the acreage in corn or in other root crops. However, the quantity of corn grown is given in bushels, at 9,025,142, and roots, at 48,241,341. Now, allowing 30 bushels of Indian corn to the acre, and 500 of roots, the total average in hoed crops, including potatoes, would be 861,549 acres, or about 4 oyo of the total improved land.

good horses, both draft and driving horses, is so great in Europe and in the United States, and when our facilities for the raising of the best horses in the world are considered, it is most painful to observe how comparatively small are the returns from this source. We export hay and coarse grains enough to raise easily ten times more horses than we do, at present, for exportation. Why not keep this coarse feed, raise excellent horse—for no one wants bad or poor horses—and benefit from the very high profits in so doing? besides securing for the farm the, not to be despised, manure.

When we consider what continued efforts the governments of England, France, Germany and Russia, without mentioning minor States, have made in order to improve the raising of horses, and the mighty results obtained, we may well affirm that this subject deserves to be made a State matter. However, I cannot do more than make mention of it here.

Cheese.—It is admitted, on the highest authority, that only 10 oyo of the whole make of Canadian cheese is of the best; 25 oyo of our total production sells at from 1c to 2c less than the best, and the balance, 65 oyo, from 2c to 6c less! Now, taking 76,000,000 lbs. as our total make of cheese, the actual loss, from our not knowing how to make the best article, amounts to fully \$3,000,000 annually.

Butter.—According to the census (1881), our butter factories produced only a total value of \$341,478 or about 1,500,000 lbs. The home made, or dairy butter, amounted to 102,245,160 lbs.

It is admitted that, whilst we have in Canada, through cold water and ice, every facility for the production of the best butter, not over 10 oyo of this home made butter is of the best quality, whilst the balance sells fully 10c per lb. below the full price of excellent butter in Canada, which shows a direct loss of \$9,250,000 to the farmers and to the country on butter made annually. Moreover, what is lost, from want of proper appliances to remove all the butter from the milk, certainly amounts to 15 oyo, at the very least, of the whole make of dairy butter, causing another loss of over \$3,000,000 more.

I sincerely believe that there is no exaggeration in the statement, that Canada and Canadians actually lose over fifteen millions of dollars annually on their butter and cheese industry alone as now made, *besides what they fail to make!* (1)

Taking the number of cows in Canada as given in the last census, 1,594,806, and allowing 2½ lbs. of cheese to 1 lb. of butter, and from 8 to 9 oz. of milk daily to the whole population, we find that our cows do not produce an equivalent of 100 lbs. of butter per cow, whilst there is really no reason why we should not make 200 lbs. per cow, or at least, at 20c a lb., \$32,000,000 more!

Through Government efforts, sustained by thorough patriots, and principally through one man, Prof. Segeleke, Denmark has obtained these very results in the last forty years, viz.: it has improved the quality of its butter to the value of more than 20c a lb., and it has more than doubled, in fact nearly tripled, the quantity produced per cow! (2)

(1) A paper on "Commercial dairying in Canada" is annexed, showing the commercial features of this question, of butter and cheese.

(2) Whilst the average prices for butter in Canada range from 15c to 25c a lb., according to quality, it has been shewn (see the Royal Agricultural Society of England's Report, 1876, page 330) that the prices in Denmark, at the farmer's door and for the English market, range from 19c to 35c! And yet, from want of direct communication, freight and charges are nearly as high as with us, amounting in all from Canada, to not over ½ cent a lb. Now, our very best butter is *not inferior to the best Danish*, as some of our makers have passed several months in Denmark to learn how they could improve our Canadian butter. In fact, the enormous difference in prices, between best Canadian and best Danish, is mainly due to the reputation