

rent, where for years handsome profits have been obtained; where increasing corn crops are readily raised, and where about £5 per acre is annually made from fat stock, instead of the meagre average of 32s., which is obtained from the country generally. Mr. Mechi recently particularized, as no solitary case in the well-farmed county of Norfolk, a farm of 1200 acres, on which, in addition to artificial manures, about 4000 pound was annually paid for linseed cake, producing probably about £3000 worth of fat meat, and leaving a proportionate amount of fertilizing manures. The more general adoption of such a system appears at present the most likely and general solution to the question at present so anxiously urged by agriculturists—How can we make farming pay?

The question—How can we make farming pay?—is one as anxiously urged by the agriculturists of Canada as by those of Britain, and for one the solution is the same as for the other. Thoroughly good farming will pay—bad farming is sure to be attended with loss and failure. The great object with the farmer must be to have his fields produce the largest possible amount of food for man and beast. In order to do this it must be kept in the highest state of fertility, and this can only be done by supplying to it in manure the elements of plant-producing food taken from it by previous cropping. Feed stock—feed them well—and your manure heap will be abundant. Then your soil will be rich and your fields crowned with abundant harvest.

And your stock should always be of the very best quality, for the dairy or the butcher, whether you feed for the dairy or beef. Inferior stock will not pay, while even if prices rule low in the market, good stock will be remunerative.

The shipment of live heaves to Europe, commenced by a Glasgow firm, has been abandoned for the present, as at present rates of steam freight it was found not to pay. Instead of shipping heaves alive, as they had commenced to do, they propose now to have them slaughtered, and shipped on board vessels furnished with refrigerating tanks, and by this means supply the British market with fresh beef. Whether this project be successful or not, the beef of north America will before many years be an article of commerce with Europe.

#### A High Standard of Agriculture.

There is nothing more directly opposed to good farming, and ultimately more detrimental to the true interests of the farmer, than the short-sighted policy so generally pursued of cultivating the soil merely for immediate profit, and raising almost entirely such crops as will bring in the quickest return, regardless of future crops. This has been so much the practice with farmers as to become a fixed habit.

In the earlier days of our farming in this new country, such a course was almost unavoidable. Then the immediate wants of families had to be supplied, and, above all, bread must be provided. Nor were successive crops of grain so injurious to the virgin soil as they are now, when much of the stores of those elements required for the successful growth of wheat and other grain crops. What was then a matter of necessity has become habitual, so much so, that farmers seem to think little of any profit from the farm other than the price obtained for wheat. Hence the scourging, impoverishing system of grain succeeding grain from year to year, till the innate strength of the soil is wholly exhausted.

This cannot be said to be peculiarly a Canadian system. The cotton plantations of the South have in many States ceased to be fertile. The farms of the more Northern and Eastern States have been so impoverished that a yield of from eight to ten bushels of wheat per acre has become general. This scourging system of farming, at one time so much practised in Europe, has entirely ceased there, and the result is that the average yield of wheat in England is from 24 to 28 bushels.

In Great Britain and Ireland the great efforts put forth by all immediately interested in the land of the country, has been to add to, instead of taking from the productivity of the soil. It is a generally recognized principle that at least as much of the elements of productiveness be given to the soil every year as has been drawn from it by crops. Only a given proportion of the farm is allowed to be under grain crops; and nothing grown on it is to be taken from it

but grain. The whole income from it is from the priced grain and cattle, and cattle products. All root crops, hay and straw are consumed on the premises, and restored to the soil in manure, in addition to the sums expended for commercial fertilizers, which are very large.

And yet English agriculturists are not content with the progress made. They say there is room for improvement greater than has yet been made. A writer in the *Agricultural Gazette*, a reliable English authority, says:—

"Great efforts have been put forth during the past generation by the English farmer to meet the pressure on the productive power of the land. The annual value of the produce of our fields and homesteads has reached £250,000,000 sterling, and by some is estimated at £300,000,000. Yet this enormous production does not suffice to feed the population."

"Notwithstanding the undoubted excellence of a good deal of the farming in England and Scotland, there can be no question that the produce of both animal and human food would be immensely increased. The Earl of Leicester, addressing a meeting of Norwich farmers some two years ago, remarked:—

"Since I last saw you I have travelled through much of England and through parts of Scotland, and taking into consideration the whole of the land I have seen under cultivation, I think I may safely state that the produce might be nearly doubled under a more perfect system of agriculture. Knowing, as I do, the greater part of the agricultural districts of England and Scotland, without concurring to the full extent in the opinions expressed by the noble lord, I am satisfied that our productions are susceptible of prodigious increase. If we estimate the possible increase at only one-third our fields and homesteads would yield more than they do by £100,000,000 a year."

To show what may be done in the production of meats, the great object aimed at by English agriculturists, the writer gives the following instance:—

"A leading farmer in the county of Norfolk realized in the past two years, by the sale of beef, mutton, and pork, no less a sum than £40,000, which was an average of from £15 to £16 per acre of his occupation. Deducting from this sum £23,000 worth of animals bought in, there remains a nett meat production of about £5 per acre, and this is by no means an uncommon instance."

He gives another instance of a farmer in Suffolk, the nett sale of whose meat reaches £7 per annum.

Our readers can see how high the aim of English agriculturists is. There is much to prevent us Canadian farmers from arriving or even aiming at the same standard for some time yet; but let us always have a high standard in view, and unceasingly advance towards it. We make one more brief extract:—

"Were the whole country brought up to the standard of the Norfolk farm I have named, the produce of meat alone in Great Britain, to say nothing of Ireland, would amount to from £150,000,000 to £160,000,000 a year—a quantity which, if the whole population could buy, it would find no little difficulty in consuming." —S

#### Conservation of the Country's Soil.

It is an old lesson this, yet it cannot be too deeply impressed on our minds.—For our own advantage as farmers, and also for the promotion of the prosperity of the country, it is needed that there be great and constantly progressive improvement in agriculture. This is the sure basis, the permanent foundation of the progressive prosperity of the nation.—Trade, commerce, the growth and wealth of our towns and cities, are all dependent upon the productiveness of the harvest. There is not, there cannot be antagonistic interests here; the merchant, the shipowner and the manufacturer have a direct interest in the farmer's well-doing. Their interest, their prosperity are mutual and inseparable. Agriculture is the basis of our country's greatness. The failure of one product of the soil, or a disease seriously affecting one variety of crop may thwart the designs of statesmen and bring about results of the highest importance to the social and political economy of a nation.

Hence the increasing attention paid by all classes to everything tending to agricultural improvement. In our literary labours for the furtherance of this great object we have had many co-workers, not only in the journals especially devoted to agriculture, but others also have given aid in the good work. In almost every newspaper published, even in many of the religious papers, there is a column or more bearing the popular heading, "Agriculture."

We propose at present taking abridged extracts from a review in the *Toronto Mail* of a treatise on Political Economy, which, though not, strictly speaking, agricultural, contains incidentally some good suggestions, more impressive, perhaps, because indistinct:—

"Two main truths are contended for, namely, That exchanges made at home are more beneficial to a nation than those made with foreigners; and that the exportation of grain from any country is virtually the exportation of its soil, the draining away of its life blood, as it were, which must end in poverty and subjection. The apparent truth of the latter argument is not now called in question by any one entitled to speak with authority on the subject, while its economic importance is rapidly being appreciated by the general public both in Europe and America. We may put the case briefly and correctly by saying that the teaching and the practice of this great truth respecting the conservation of the country's soil is the end and aim of all our agricultural and dairymen's societies. Every address to an agricultural society, recommending the extension of dairy farming, of the cultivation of roots and grain crops, and the reduction comparatively of the area under grain is, in effect, a practical exposition of the doctrine of the conservation of the country's soil."

This, no doubt, is the conclusion to which all our teaching on improved agriculture would finally lead us; but we are not prepared to go so far just now. Our country is yet young and sparsely inhabited, and our tens of thousands of acres of fertile land never yet opened by the plough-share, will enable us for many years to export immense quantities of grain. But we must, if we desire our prosperity as farmers, and the prosperity of our country, keep in view, in all our labours, the conservation of the country's soil. If we take largely from it in breadstuffs, we must restore to it with a liberal hand and in no stinted measure the elements of fertility we have taken from it. To do this in the best and the least expensive method, let us raise more roots and green crops and less grain; let us feed more cattle. Let our principal exports be meat, butter and cheese.

English farmers are every year decreasing the area of the wheat crop and proportionately adding to the area for stock feeding, so that the breadth under wheat is a quarter of a million acres less than it was five years ago. And in no country is there so good a market for breadstuffs, but they have learned that in order to keep up the fertility of the soil they must feed a large stock. By this they are enabled to raise a greater average yield per acre of wheat than any other country. In Ireland and Scotland, as well as England, there has been a continuous decrease of the area under grain cultivation, and an increase in cattle food and cattle. From the official return we learn that the number of cattle in Ireland had increased from 3,471,688 in 1863, to 4,151,561 in 1873. The number of sheep had increased within the same time from 3,566,050 to 4,486,453. This increase, we must remember, was within the narrow limits of an island.

It does not necessarily follow that by decreasing the area of wheat cultivation and increasing the stock feeding, the number of bushels of grain will be lessened. Ten acres of rich land well cultivated will give a greater return than fifteen acres impoverished and badly tilled. —S

#### Profits of Stock Feeding.

NOTES OF DAIRY HUSBANDRY.

The production of meat is the first object of British agriculture. One reason for this, no doubt, is that farmers find grazing the most profitable branch of agriculture. This, it is true, is owing to the high price of meats in the English market, a price very different from that of the markets of Canada. But in connection with this question we must take into consideration the heavy burdens borne by the English land-holder. He has a good rent to pay—not less than five dollars per acre, generally between five and ten. In addition to this he has to meet heavy taxes, including the poor rates.

Were our farmers to feed meat in the same extensive scale as in Britain, the difficulty of finding a food market for it would render it far from a profitable business; but for this, too, there is a better time, we believe not far distant, when the Canadian sirloin will be competing in the market of Smithfield with the beef of old England. But of this we have already said enough for the present.

We now refer to notes of dairy husbandry:—

#### A NEW HAMPSHIRE DAIRY.

Mr. W. L. Bridgman, of Hanover, N. H., says in the *N. E. Farmer*:

"Please find by express a sample of 90 pounds of butter, made from 8 cows, for the seven days ending October 23. My cows are five full blood and three grade Alderneys. All came in early in the season, and have had no feed at the barn except two quarts of corn and cob meal, and two quarts of bran each. From the first of May, 1872, to the first of January, 1873, the same cows made an average of thirty-four pounds, six ounces, to each cow per month. I have one cow that has made fourteen pounds and fourteen ounces in seven days, with nothing but what she got in the pasture, yet I don't think she will make 365 pounds in a year, like Mr. Crozier's."

#### A GOOD DAIRY.

The *Rural Register* gives an account of the milk farm of B. A. Avery, near Syracuse, N. Y. The main point of the article is to show the advantages of cooking food for stock. Mr. Avery has been very successful in cooking food for some years past.

He has a farm of 200 acres, of which 16 are waste land. He keeps an average of 60 cows, and young stock making up the number to over 100. At the time the account was written he had 65 cows, 18 two year old heifers, 18 one year old, and 9 horses—total, 110. As we understand the account he purchases no feed, and about 50 tons of hay are sold yearly. The principal crops were pasture 60, corn 25, hay 65 acres.

He turns off his cows at an early age, keeping few over seven years old. The average yield of milk per cow is 2,281½ qts. per year, or 6½ qts. daily. The cows have considerable Ayrshire blood. The milk sold annually amounts to \$5,000 yearly, and from \$1000 to \$1200 of cows are sold yearly.

#### A VETERAN DAIRYMAN.

The *Canada Farmer* says Harvey Farrington, of Norwich, Can., and his children are the managers of 17 cheese factories and branches. The milk of 6,200 cows is worked up, and this season the cheese product is estimated at 2,220,000 pounds. Mr. Farrington is said to have been engaged in cheese making 42 years. He is a native of Herkimer Co., N. Y.

#### WESTERN N. Y. BUTTER MAKERS.

At a meeting at Jamestown, N. Y., several dairymen agreed that 150 pounds of butter per cow per year was about the average product of dairies generally. The largest yield reported by any one present