

Third: That the boiling or steaming of food for animals that chew the cud is the most unnatural, the least healthy, and does not give corresponding results in accordance with expense, unless upon the large scale.

The proposal to preserve corn as green fodder for winter, by ensilaging, carries common sense with it at any rate, whatever the feeding effects may be, and I trust to be able to talk experimentally about it next spring. When asked in what way you would prepare show animals so as to maintain health, acquire rapid weights, and uphold the manure pile, we say that loose box management winter and summer with prepared raw food cannot be surpassed by any other plan. Management, however, cannot be thus hurriedly dealt with.

I have never seen any ill effects from allowing animals to have all the water and salt they can take at all times, and nothing is more rational than to feed at least five times a day, giving proportionally little at a time. Because man himself feeds thrice daily it does not follow that it must be best for all other animals. The little and the often is nature's lesson. Some are often in doubt as to what is called a *sofe* quantity of grain per day, when pushing cattle and sheep for market. A good guide is one pound to every one hundred pounds that the cattle or sheep weighs. This is sound scientifically, because most animals eat in proportion to their weight, under, of course, average conditions of age, temperature, and fatness. It is also as true in practice as it is given by lessons from nature, that change of food often is good, and yet dangerous to do so rapidly. To those who believe in a liberal allowance of turnips and mangolds, it should never be forgotten that our winter conditions call for more cautious work than British experience, and the rule with us should be, just so much of these fleshy green fodders, along with other things, as that the animal will drink but very little water. The grooming of cattle can be easily overdone. When anxiety overruns common sense to the extent of disturbing the animals three times a day with the curry comb and brush, more harm than good ensues; to a tied-up animal the brush is indispensable, but never rouse them up for this purpose, nor in any form but one thorough grooming daily. Judiciously done, however, this practice alone means \$4 per head more when market day comes.

And now, having advanced some things already well known and believed, others known and doubted, as well as some not known and possibly disbelieved, allow me to answer the important question: Does it pay to fatten cattle and sheep under Ontario conditions?

How very common to hear the statement, "I bought six grade steers last fall for \$35 apiece, and sold them in May for \$75, so I have cleared \$40 a piece. Doesn't that pay well?"

What pays well; the added weight of flesh, or the increased value per pound of the whole animal, that was bought at \$3, and sold at 6 cents; or shall we say that a more advanced view was taken of the transaction, and the conversion of crops into manure, duly weighed?

I am not a whit disposed to hold out our own ignorance as farmers any more than that of other countries, and when I say that it was but yesterday, so to speak, that British farmers were taught the true commercial position of a fattening animal, we need not be ashamed of being obliged to enquire into the same question, in a new land.

It is a fact then, that no animal whatever, under any conditions, will pay for the direct increase to its weight from the consumption of any kind or quantity of food. The first view of this, to those who have not made the enquiry, appears to be a perfect absurdity, and they respond at once, and naturally so, with the exclamation: "It is impossible. What is the use of feeding at all if that is the case?"

We have already touched upon this phase of the subject, in estimating the cost of a store cattle beast, but no details were submitted, and besides, it is in the finishing of beef that profit and loss ensue.

Take up the stall steer of 1050 lbs. that cost us \$47.25. By this gradual introduction to heavy feeding from 1st October to 1st June, the average daily kinds and quantities will be about:—Hay, 7 lbs.; straw, 3 lbs.; Roots, 40 lbs. (mangolds and turnips); grain, 10 lbs. (corn, oats and peas); bran, 2 lbs.; cake, 3 lbs. (six weeks.)

This is liberal feeding, but not extravagant, when rapid results are required—"premature" call it if you will. Charge these at the ordinary market rates, and the total cost of food consumed amounts to \$56 for 243 days. Add to this five dollars for bedding, attendance and risks, and we have \$61 to place to the original cost of \$47.25—thus making \$108.25 as the total cost of producing a finished bullock.

What is our position now? We have a steer that weighs 1475 lbs. and manure weighing about nine tons.

This manure, we said, belongs to the animal meantime. Its value is not what most of farmers put upon it, nor what the scientist puts upon it; but what practical experience has proved to be its value, along with the check which the chemist gives, and which always agrees with practical experience. Its value is not necessarily by weight, but largely by the foods that have been used, and so, taking all things into consideration, this manure is actually worth to the farmer, the sum of \$31.50, or \$3.50 per ton.

Cases vary in rate of increase, food consumed, and price realized; but this example may be taken as a fair average.

Now mark this with a loss of \$5, without taking manure into account, we had, as it were, sold the various crops of the field to the fattening animal at market prices, and thus, of course realizing a profit upon that transaction by itself. The difference between cost price and market price, on an average of things, is just about one-half, so in place of charging the animal with \$46, it might have been only \$30.50 (allowing of course for the bran and cake which we had to purchase,) or the exact cost of production. Here we hold a sum of \$25.50 (\$56, \$30.50) which placed opposite the \$5, gives \$20.50 of real cash profit, and this again added to manure, shows a total profit of \$52.

The whole question of fattening, therefore, depends upon how you put the case, and value the manure.

The faster the fattening, the greater the profit, the less cost of food, earlier returns, and better flesh. Get rid of every fattening cattle beast before two and one-half years, and every fattening sheep before it is fifteen months old.

It does not pay to hold them longer. Take the case of the four two-year-old steers now in your exhibitions from our experimental farm, as specimens for exportation. Had I sold them on the first of June last, when they averaged 1600 lbs. per head, and were worth \$112 at 7½ cents, we would

have stood well financially; but since then, through summer heat, less daily increase, about as much food, and no greater price per pound for exportation, we can get but \$9 more per head for three months' feed and expenses. I say exportation, because for special Christmas purpose we can get much more, but the demand is limited.

I have talked more about cattle than sheep on this occasion, but not because I consider the one more important than the other.

There is no time at present to enter fully into all the bearings of wool and mutton, yet something must be said.

There are good reasons why, as yet, we are more beef than mutton and wool producers. A forest country, an arable country, a grain-growing one, once for working, cows for milk, the greater suitability of beef for human food, and for winter keep. These, and others have marked our past live stock history, as against Australia, for example. But mutton is now mutton amongst us, if not so much for our consumption, it is clearly so for exportation, and though wool at the present moment is not wool per pound as we like it, it is more our own fault than that of the markets.

I do not think I would have any difficulty in proving to this meeting, that, to one well up in his profession, thoroughly practical and able to guide himself by the light of science—there is even in Ontario conditions more value per acre in the raising of wool and mutton, than there can possibly be in beef. I do not refer to thoroughbreds in either case, but simply to the growth of these products by the use of pure bred males with the commoners of the country. Take a one hundred acre farm, with soil of average texture, under ordinary rotation of crops, and the best management. Choose the best stamp of grade ewes, that by their wool, roundness, and health, bespeak good mothers. Use the kind of Down ram, be it South, Shropshire, Hampshire, or Oxford, as experience has shown, to be most suitable to the special physical conditions of the farm and district, and that will give just the sort of wool and mutton wanted by the present markets of the world. Feed liberally for both crops, wool and mutton annually, lamb early, never tempted to sell lambs to the butcher unless at a pound, and sell all your produce after the first shearing, so that you have heavy weights and best quality of everything, and thus it is safe to say that your revenue will be one-fourth more per acre than by any other branch of farming.

In conclusion, I must do myself the pleasure of laying before you something quite new—never before known to anyone.

When your Council did me the honor to name me as their reporter on live stock I felt that something else was desirable besides the examination and criticism upon herds and flocks at Kingston, and while I could have made use of some statistics already gathered by our young, but vigorous Bureau of Industries, I judged it best to have something reliable through personal correspondence. I refer to the actual history, numbers, individual characteristics, and the whole stamp and standing of the herds and flocks of our Province. Accordingly, having secured through the kindness of Mr. Wade, the names of over 1,800 breeders—said to be of pure bred cattle and sheep—I issued a circular to each, and have already received returns from about 400 of them, setting forth the kind, date of establishment, from whom established, present bull and ram in use, and the number of males and females.

I find a very considerable proportion of the 1,800 are not breeders of the thoroughbreds; that some have retired from the special line of breeding; that others cannot be found, and quite a number have not complied with my circular as yet.

However I am already in possession of such a mass of information in regard to the herds and flocks of this Province, as makes me view rather seriously how it should be presented for thorough and profitable digestion. Shall it be purely statistical?—which is the easiest for the writer—or should it be from a practical farmer's stand point, or would it be preferable to handle the material as a political economist?

Meantime take these important facts:—

There is only one thoroughbred bull of all ages to every one hundred farmers of the Province. Were they distributed equally every 15,000 acres would possess one bull, but they are very distinctly localized, as I hope to show you by a special map in my formal report. There are only about four pure bred cows to every pure bred bull on an average of kinds and herds, so the males are proportionately much more plentiful than the females. There are about one 1,000 herd of pure bred calves dropped every year, and this being the case the natural question is—What becomes of them all? As there are 50,000 farmers able to keep, and who should keep a thoroughbred bull for their own use, it follows, allowing one-half of the calves to be males, that at the present rate of breeding and distribution among ourselves, fifty years will yet be required to complete the bill, and this allows for no increase of farming. But a very large proportion of our thoroughbred cattle are removed from the country, and consequently, unless some great change takes place, the boy born this year may live for the next three score and ten and not see Ontario up as he ought to be in live stock matters. It is a sad reflection on our enterprise that for every 3,000 head of grade cattle, we only hold one thoroughbred!

Matters are no better in regard to sheep. For every one thousand head of grades, the Province possesses but one pure bred ram, of all ages, and consequently but one to every twenty-five capable farmers.

Were our farmers less independent than they are, were Ontario conditions less favorable than they are to the production of grain, if it were hard to make a living amongst us—the change from much grain to more flesh would be very much more rapid than it is. Men are doing well in the old track, and as average human nature is highly conservative in that line, our live stock interest will drag until science and practice make things more clear.

Will some of our subscribers send us a copy of the FARMER for Oct. 11th, 1882, to complete our file.

Send in your list at once, before the rush. Read our Premium and Clubbing List carefully. Page 121.

#### Some One Said

"One should not know they have a stomach," so far as feeding is concerned; but once the Liver becomes deranged "disasters come not singly." Everybody has Dyspepsia in some form, seven-tenths of all sickness is caused by too much bile—not enough bile—too much bile in the blood, not enough activity of the Liver, etc.

Regulate all this internal trouble. Regain pure, enjoyable, jubilant health with that grand prescription, ZEPERSA. At least try a 10c sample.