

sweet, fresh straw, moisture it with water—hot or cold—and mix well up with it six pounds of the following meals :

3 lbs. of maize ;  
2 lbs. of pease.  
1 lb. linseed.

Should you have no home-grown maize, you may substitute for it 4 lbs. of oats, and towards the end of the period of fattening, an additional half pound of linseed may be added.

The grain, well mixed up together, is to be *finely* ground at the mill.

After the meal and moistened chaff have been turned over thoroughly, they should be kept to sweat for a few hours. This will aid digestion. A wide box, with sides, say, 9 inches high, is a handy thing, in the absence of a stone floor, to mix in. It should be kept perfectly clean and sweet.

The young castrated males, of, say, two years of age, being yet growing both in muscle and bone, will require a somewhat different prescription. The following I have found useful :

Roots or silage.  
A bushel of straw-chaff ;  
6 lbs. of pease-meal.  
1½ lbs. of linseed.

The pease and linseed to be ground up together, as before. If there is any difficulty in grinding, the substitution of 2 lbs. of oats for 1 lb. of the pease will make the meal more perfect. The chief thing is, that every grain of the linseed must be cracked. It has been found by experiment that out of a thousand grains given to a beast *uncracked*, two-thirds pass into the dung undigested. Barley, of course, may be substituted, weight for weight, for maize, if cheaper. Fresh oat-straw, in all cases, in the racks the last thing at night.

I need hardly say that the *sloppier* the food your regular milch-cows are given, the better. Not so for those you are milking and fattening.

I have used this form of food for years, and have always been satisfied with its effects. I have no experience in the use of bran, except in mashies for horses, so I do not mention it, but I have no doubt about its utility for milch-cows in general, provided its cost does not exceed \$14.00 a ton.

**Manure.**—In my younger days, it was the custom for the more advanced farmers in England to feed their fattening beasts in a rather extravagant fashion. Two bushels of roots, hay *ad libitum*, and 14 lbs. of linseed cake was a common dietary. They thought, and with some degree of truth, that although the bullocks could not assimilate the whole of the nutriment contained in the food, the balance re-appeared in a remunerative form in the dung. No man, at that time, expected to make a profit out of fattening beasts. One of our best farmers in the Eastern counties declared publicly (in 1848) that he lost \$10.00 on every bullock he fed in the winter—he used to turn out 250 fat—and they were really fat—beasts a year—but that he recouped himself by the manure they left behind them.

But this extravagant system has been long exploded, and every one, now-a-days at any rate, aims at making some profit out of his expenditure and labour in preparing meat for the market.

The only constituents of food which are of importance as ingredients of manure, are the nitrogenous substances and the ash constituents. In cases where the bodily weight is increasing and milk is being produced, the amount of nitrogen and ash in the manure will be less than that in the food in direct proportion to the quantity of these substances which has been converted into animal produce. Part of the nitrogen and ash is left undigested during the passage of the food through the alimentary canal : these are voided in the solid excrement. The digested part passes into the blood, some of it may be converted into increase of weight or into milk—into both in our case of the milch cow being fattened

—and the remainder is finally separated from the blood by the kidneys, and is voided in the urine.

Now, the proportionate quantity of both nitrogen and ash contained in the excrement of animals will perhaps surprise you. For every hundred pounds of nitrogen administered in

per cent.  
the food of an ox there are stored up as increase..... 3.9

“ “ voided as solid excrement 22.6

“ “ do as liquid do 73.5

100.00

That is, the liquid and solid excrement together contain 96.1 % of the whole nitrogen given in the food.

Of the ash constituents, 2.3 % are stored up as increase, and 97.7 % are voided in the total excrements.

You see then that the liquid excrement contains about 3½ times as much nitrogen as the solid, and, hence, you will see the absolute necessity of preserving the urine of your cattle by absorbents of some kind ; for I do not think liquid manure-tanks are very likely to exist on many farms in this country. Nitrogen, in its cheapest source, that of nitrate of soda, is, thanks to the abominable row in Chili, whence most of it comes, worth \$10.00 a ton more than it was last year ; that is to say, that whereas nitrogen could be bought in England for 10 cents a pound, it now costs at least 12 cents.

What quantity of the 100 lbs. of nitrogen falls to the share of the milk of our barren cow it would be a different task to determine except by an analysis of each individual instance ; but of course the manure from her would not be as rich as the manure from a fattening ox.

I do hope, in conclusion, that you will do your best to increase the supply of good meat in the Montreal market. To pay 15 cents a pound for ribs and surloins of beef—and that is what the West-end butchers are now charging—, even if the meat were of the best quality, seems to me to be rather too much of a good thing, considering the prices the farmer gets for his cattle on the foot, but I should not grudge the price if the farmer got his fair share. At present, the butcher seems to be doing well, and the feeder of the beasts to be left in the lurch.

(From the French.)

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## DE OMNIBUS REBUS.

**Sulphuric acid.**—Mr. MacPherson, speaking of the Babcock test, stated that sulphuric acid—the brown quality of course—though only costing one cent a pound in England, cannot be bought for less than two cents here. At the former price, superphosphate could be made cheaply enough on the farmer's own premises. One ton of bones and half a ton of sulphuric acid would only cost \$38.00, and would be rich in nitrogen as well as in soluble phosphoric acid = 10 arpents.

**Udder clap.**—This complaint, called in England “ corded teats,” is not uncommon here, and if the following treatment of cows is common in this county, it is no wonder. “ Oh, Sir,” said a Glengarry damsel to me, the other day, “ when the factories close, we often have more milk at night than our vessels will hold, and then we leave it in the cow till the next day.” Fact, I can assure you. I was not surprised to hear that out of her father's 13 cows several had one, and some, two teats corded.

**Australian butter.**—The last importation of Australian butter into England sold well. The best fetched 126 shillings for 112 lbs, the best creamery only 110 shillings !

**Adulterated milk.**—They are getting savage in Montreal. M. Daigault, a milkman, was fined, on the 28th January,