

Consequently no set rule or system can be laid down as being the most profitable to adopt in all cases. By the majority of farmers roots are looked upon as indispensably necessary to feed cattle profitably. Seeing an analysis of turnips to the effect that ninety per cent. was water, it became a matter of debate in my mind whether it paid to handle that much water for the ten per cent. of nutritive value that would be incurred in raising, taking off, and feeding out a crop of turnips. I also saw another analysis of bran claiming that the manurial value of a ton after being fed was \$6.

The outcome was an experiment in feeding without roots, and although the results were not always as satisfactory as we would like, but more particularly on account of the inferior class of the cattle sometimes fed, we are fully convinced after feeding thirty-five to forty-five head for the last three winters, that well-bred, thrifty cattle can be fed profitably without roots. I believe greater care is necessary, though, to keep up the appetite and a healthy thriving condition.

Of the various kinds of food I think bran by far the best substitute for roots, as it is of a laxative nature; besides, for animals that chew the cud, bulky food will give a larger percentage of profit than concentrated.

The hay fed must be well cured and sweet, and I would prefer a good mixture of clover with the timothy.

Pea or corn meal are by far the best fat producers of the different kinds of grain, but to give more bulk, and as a variety, I would prefer mixing an equal proportion of oat chop to be fed with the bran. I have discarded shorts or middlings entirely. Oil cake, if not too high in price, should be fed, but the last ton bought cost \$34, and with the oily substance pretty thoroughly extracted at that, making it rather a doubtful food. Salt should be fed regularly, but in small quantities, not more than a teaspoonful daily. Above all, a good supply of pure, fresh water is indispensable. A warm stable, properly ventilated, regularity in feeding, keeping the mangers clean and sweet, are all important considerations.

I am satisfied that well-bred steers will gain from 250 to 300 pounds with five months feeding. Three years ago three head were purchased in November, for \$100, all three years old past. Had some breed in them, but were thin in condition, and were estimated to weigh less than 1,100 pounds each. When turned out early in May they weighed 4,260 pounds. At the same time three others that were two years old past were fed, commencing in December, and estimated to weigh 1,050 pounds, weighed 3,900 pounds when sold. Equally as good gains have frequently been obtained, and in some individual cases even more.

At the prices realized for beef of late years, there is no question but that it pays well to raise and feed cattle, besides the profit accruing from the increased fertility of the soil. And who can fully estimate the extent of the profit in that respect?

The value of manure from a full-grown beast has been variously estimated at from \$15 to \$20 yearly. Such being the case, what folly it is to sell the coarse grains, hay, etc., when the market value may be fully realized in the form of beef. The larger the quantity of food consumed and properly digested by an animal, the greater will be the profit.

When we remember that it is only eleven years since the first experiment in exporting beef cattle to the old country markets was made, the most sanguine could not anticipate the marvellous increase and development of the trade that has taken place from year to year, until the shipment

Estimating these at an average of \$70 per head, we find it to aggregate the large sum of \$4,200,000. This is but a tithe of what might be produced. In view of these facts, how momentous it is upon the farmers of this fair Dominion to direct their thoughts and energies to a subject of such great and ever increasing importance.

EFFECT OF COLD ON COWS.

Dr Nicholas, of the *Boston Journal of Chemistry*, found that the cooling of cows' legs by standing in a pool of cool water in hot days in the summer, to avoid the annoyance of flies, diminishes their flow of milk. His observations were carefully and repeatedly made, and there could be no mistaking the fact that the chilling of their feet and legs decreased their milk secretions, so sensitive are cows to the influence of cold.

Such being the case, what must be the effect upon cows, which, at this time of the year, have not only their feet and legs, but their whole bodies, not only moderately, but severely chilled, by standing out in the cold winds and storms needlessly, all day, or have their legs, teats, and ears and tails nearly frozen, by standing still too long in a cold stable? These observations are worth remembering by every dairyman in these high latitudes, as a warning against exposures to the inclemencies of the seasons. How many dairymen have got a clear appreciation of just how much chilling a cow will bear before her milk will begin to shrink, or her flesh begin to give way? Not many, it is pretty certain, or we should not so often see cows on the leeward side of fences with their backs humped up and their heads and tails drawn down, and their feet all gathered upon a single square foot of surface, with the vain endeavour to ward off some of the intensity of the chilling blasts that distress them. If the owners of cows or other stock fully appreciated the extent of loss they endure by allowing their animals to get chilled to discomfort nearly every day all winter, they certainly would take better care of them. No man in his right mind would stand by idly and see the flesh of his own animals gradually but steadily wasting, without making a strenuous effort to check the waste. He certainly would exert himself, if he positively knew that either flesh or milk were being lost, and would cost four or five times as much to restore it again as for lumber to save it by making comfortable quarters.

Everybody is not expected to make as close observations as Dr. Nicholas, but it would seem as if anybody ought to be able to distinguish between the amount of flesh on a cow's bones in autumn and the quantity on them in the spring following a hard winter; and if he fed the animals decently well, he ought to be able to understand that the difference in flesh between autumn and winter is due to destruction by cold. The reader may think a man must be stupid if he could not "see it," but there are thousands of men in every State and Province, the flesh of whose cows comes and goes alternately every summer and winter, and yet the owners don't "see it." The man who could wake up the stock owners of a state, or even of a township, to a realizing sense of the losses they annually incur from needlessly exposing their stock to cold, or to cold which could be easily avoided, should be entitled to a pension the rest of his life.

The *American Garden* says that the scraping of fruit trees is often carried to excess. A healthy, vigorous tree does not require to be scraped at all; it needs all its natural bark for protection against the cold, drying winds of

CREAM.

CAN a man's pocket be empty when he's got something in it? Yes, when he has a big hole in it.

WE are asked when a young lady is of age, and we unhesitatingly reply not until she is married.

A GENTLEMAN who did not trust to his memory, wrote in his memorandum book, "Must be married when I get to town."

A LITTLE fellow of five, with his first boots on, being told that the baby wanted to kiss him, replied: "Yes, he takes me for his papa!"

A TEUTONIC friend ran a foot race and lost it; but ran again and won. He said: "I'm first at last, if I was behind before."

"Who is that across the street?" "Oh! that is a very close friend of mine." "Indeed?" "Yes. Never lends a cent."

JOSH BILLINGS says that the best medicine for rheumatism is to just keep still and thank God that it isn't the gout.

"SALLY," said a fellow to a girl who had red hair, "keep away from me, or you will set me afire." "No danger of that," was the answer, "you are too green to burn."

"JANE," said he, "I think if you lifted your feet away from the fire, we might have some heat in the room." And they hadn't been married two years either.

A LADY meeting a girl who had recently left her service, inquired, "Well, Mary, where do you live now?" "Please, ma'am," rejoined the girl, "I don't live nowhere now, I'm married."

"I HAVE neither time nor inclination to pass panegyrics on the deceased," remarked an orator. "Panegyrics," corrected a person present. "As you please, sir," remarked the orator stiffly, "the words are anonymous."

"Ain't you almost boiled?" inquired a little girl of a gentleman visiting her father and mother. "No, little one, I can't say that I am. Why do you ask, Daisy?" "Oh, because I heard mamma say that your wife always kept you in hot water."

A BANOR young man blackened his moustache with a lead comb, and then took his girl out for a moonlight stroll. When the fair one appeared in the bright light of the family circle a couple of hours later, her face looked like a railroad map.

How can nine pigs be put in four pens, and an odd number in each pen? Make one big pen, and in it three small ones. In each of these little pens put three pigs, which will be odd numbers each. Of course the big pen will have an odd number—the whole nine.

"Do let me have your photograph," said a dashing belle to a gentleman who had been annoying her with his attentions. The gentleman was delighted, and in a short time the lady received the picture. She gave it to her servant with the question, "would you know the original if he should call?" The servant replied in the affirmative. "Well, when he comes, tell him I am engaged."

In a certain family a pair of twins made their appearance, and were shown to their little sister of four years. It happened that whenever the household cat had kittens the prettiest were saved and the rest drowned. When the twins were shown the child by their happy father, she looked at them earnestly, and at length, putting her little finger-tip on the cheek of one of them, looked up and said, with all the seriousness possible, "I think I shall eat this one."