

WALKS AND TALKS ON THE FARM

Do you recollect a conversation we had about the system adopted by the Herkimer County dairymen, of breeding and feeding cows solely for milk, without any reference to their value for beef when they were no longer profitable for the dairy? I endeavored to show that at the present price of beef it would be better to keep a cow five years and then sell her for beef, and get another and keep her five years and sell her also for beef, than it was to keep one cow ten years until she was "used up" and of little value except for the hide. In the latter case, we figured a total profit of \$210 in the ten years; and in the former case, a profit of \$125 in five years on one cow, and consequently a total profit on the two cows during the ten years of \$250.

A Cortland Co. farmer writes that I have made a mistake—that the profit on the old cow is \$210, and on the young cow \$125, and that consequently the present system of keeping cows until they are used up is more profitable than of turning them off at an earlier age for beef. He overlooks the fact that in the latter case we have two cows instead of one. The profit in the ten years is just double what he supposes. There is no mistake, except that the profit on the young cow is \$130 instead of \$125, and consequently \$260 instead of \$250, a mistake which adds ten dollars to the strength of the argument. I was very careful not to overestimate the profits of the new system. I think it would be easy to show greater advantages than those which we claimed. With beef at famine prices it seems a pity to keep a cow until there is nothing left of her but skin and bones.

The same writer says: "Some other ideas of Walks and Talks in the February No. differ from what I believe dairymen around here hold to, as when he says: 'It takes more food to produce a pound of cheese than a pound of beef.' I cannot say he is mistaken, as I have not tested it." He then asks if the cow that produced 600 lbs. of cheese in a year would produce more than 600 lbs. of beef with the same food. Probably not. But a cow with equally good digestive organs, that is so constituted that all the food shall be changed into beef instead of into cheese, will gain a good deal more than 600 lbs. in live weight.

It is an extraordinary cow that will produce 600 lbs. of cheese in a year. Such a cow must necessarily eat a large amount of food, and of the best quality, and the probabilities are that at the commencement of the season she is in high condition, and as thin as a shadow at the end of it. In other words, although the season may not last over eight months, the food of the whole year is used to produce the 600 lbs. of cheese, and the calf. The flesh and fat she had stored up during

the winter would all find their way to the milk-pail before the end of the summer. Mr. Sheldon's Short-horn calf weighed at six months old, 652 lbs.; at 9 months old, 928 lbs.; at 12 months, 1,216 lbs., and at 18 months, 1,806 lbs. Of course this is an extraordinary animal—but is also the cow that will give 600 lbs. of cheese in a year. Both have splendid digestive organs, and both unquestionably had all the food they could digest and convert into beef or cheese. Had this animal been killed at twelve months old, he would have dressed at least 800 lbs. And you must recollect that in the case of the cow the machine for converting the food into cheese is already made—and it required at least three years feeding to get the machine in running order. But this yearling Short-horn made nearly the whole of his own machine as he went along, and turned off 800 lbs. of beef.

But of course such facts as these prove nothing. They are not comparative. The main reason for supposing that a pound of cheese requires more food for its production than a pound of beef is this. Beef is derived from the blood of the animal, and so is cheese. Their origin is identical, and composition very similar. But there is far less water in cheese than there is in beef.

A first-class American cheese analyzed by Dr. Voelcker contained in one hundred parts:

Water	27.29
Butter	35.41
Casein	25.87
Milk sugar, lactic acid, and extractive matters	6.21
Mineral matters, (Ash)	5.22

Lawes & Gilbert give the composition of the carcass of a fat calf, a half fat ox, and of a fat ox:

	Fat Calf.	Half Fat Ox.	Fat Ox.
Water	62.30	54.00	45.60
Fat	16.60	22.60	34.80
Nitrogenous compounds	16.60	17.80	15.00
Mineral matter (Ash)	4.48	5.56	4.56

Look at these figures and tell me which would require the most food to produce it, a hundred pounds of cheese or a hundred pounds of beef? Take the half fat ox, (which is the condition in which most of our cattle are slaughtered), and it will be seen that the beef contains twice as much water as the cheese. If there was no water in the cheese, and no water in the beef, the composition per cent would be as follows:

	Cheese.	Beef.
Fat or Butter	48½	49
Nitrogenous compounds or Casein	35½	38½
Sugar, lactic acid, &c.	8½	none.

The beef contains a little more fat than the cheese, and some 3 per cent more nitrogenous matter, but the cheese has 8½ per cent. sugar, etc.

Looking at these figures as they stand, one would say that it took about as much food to make a pound of dried beef as a pound of dried cheese. But we do not sell beef and cheese in this chemically dry condition. As ordinarily sold, the cheese contains only about half as much water as the beef. The cow that makes 600 lbs. of cheese in a year has as much fat and nitrogenous matter extracted from her blood as would make about 900 lbs. of beef. And that this is all derived from the food directly or indirectly, no sane man will question. It takes, therefore, more food to produce a pound of cheese than a pound of beef.

The same writer thinks it a mistake to suppose "that enriching the land either by hoeing or manuring, causes it to grow richer grass." He thinks "2 tons of hay from two acres is worth more than 2 tons from one acre." Sometimes it is, and sometimes it is not. It depends on the character of the land and on the nature of the grass. Two tons of timothy from two acres of upland would be worth more than two tons of sedges, weeds, rushes, and coarse grass, from one acre of rich swampy land. So far he is right. But this does not touch the point. Take a field of good dry upland. Let half of it be enriched by thorough cultivation and manuring, and the grass on this half will be sweeter and more nutritious than on the other half. Top-dress an acre or two of pasture land with some rich well rotted manure. It will bring in finer grasses and thicken the sward, and the cows will very soon tell you which grass they like best. They will not touch the other grass as long as a bite can be obtained on the top-dressed portion.

This man is hard to please. He thinks everything I said in the February No. is "faulty." He cannot see why high farming is any more necessary or profitable on high-priced land than on cheap land. He thinks "good farming pays the best anywhere." But we were not talking about good farming, but high farming. If he had written: "My idea is that high farming pays best anywhere," he would have met the case. And if he had thought a moment, he would have seen that this proposition is not true.

Good farming is sometimes high farming, and sometimes not. Plowing under a crop of clover, for wheat is frequently good farming, but it is anything but high farming. Summer-fallowing is often the best and cheapest way of cleaning and enriching land, and in such a case is good farming, but it is never high farming. High farming would summer-fallow the land and have a heavy crop growing at the same time. The market gardens around New York, afford excellent examples of high farming. Read Henderson's interesting book on "Gardening for Profit," and you will get an idea of how much produce can be