

most interesting and wonderful of the family. The houses of these ants are five hundred times higher than themselves. Were we to build houses in the same proportion, they would be fifteen times high. Than St. Peter's Cathedral at Rome. The nests here represented, (see cut at top of article,) are often twelve and twenty feet high, with a vast number of rooms, galleries, apartments, and magazines, for different purposes, and of different sizes. Some are shaped like pyramids, others like mushrooms, both admirably fitted to carry off the rain. Part of these edifices is below, and part above ground. Thus the ants can regulate the heat, going down stairs when the weather is hot, and up stairs when it is cold.—*Youths' Cabinet.*

THE DAIRY.

Advice of a Scotch Farmer to a friend in Canada.

It is an undeniable fact, that when a person, brought up and living in a large city, turns his attention to rural affairs, and longs for a country life, the first thought that enters his mind is, "We shall be able to keep a cow." If a pig and poultry "cast their shadows before," they do not cast them before the cow in the city's ideas; they are always behind her, and seem only to form suitable appendages to that useful animal. Nor is this to be accounted for on the supposition that he has been stunted in quantity or quality for 40 or 50 years (of the cow's produce), for people in the country depend as much for their comfort on milk, in its different modifications, as people in the city would wish to do. The truth is, there is a real, generous, nutritive value in dairy produce, alike agreeable to all, when brought to the table in perfection. But there is much implied in the word perfection; and, on purpose that you may understand something about it, I intend to begin at the beginning and leave off at the end, not doubting but that some one or other may be benefited by the remarks I may be able to make.

On purpose to have dairy produce in the greatest possible perfection, three things are absolutely necessary, viz.:—

- 1st, The best possible breed of cows;
- 2d, The best possible quality of pasture; and
- 3d, The best possible dairy-maid.

Now, one, or perhaps two, of these necessary requisites may be got, and that only occasionally. All the three in combination very seldom indeed, can be procured; but, be it remarked, that a really better article may be produced by a mediocrity of all the three, than by any two of them of the best possible, and the third bad.

Again, the dairy may be viewed as a source of profit; and here much depends on the market to which the produce can be brought. On this part of the subject my remarks must be quite of a general kind, it being impossible for me to ascertain the circumstances in which you may be placed.

With regard to the breed of cows in this country, what is termed the Ayrshire breed is decidedly the best, for quantity and quality of produce. It is, of course, impossible to give an adequate description, but I may say that they are low and broad; moderately short legged; of a round make of body; broad above the kidneys and loin bones, with a thin soft skin, (the finer and softer the hair so much the better); the neck and head should be small; with a pretty broad udder, stretching somewhat along the belly, having four well shaped teats placed at some distance from each other. The colour, too, is of importance—brown, black, or blackish brown is the best—white cows, or those having much white, cannot stand the cold so well, at least that is the general opinion here; hence they are rarely to be met with among dairy farmers in Scotland.

But of whatever breed, it is of importance that the cows you have give a fair quantity of rich thick milk, and you will observe that this quality is to a certain extent hereditary; so that when you get a cow of this kind, you will take care and keep as many of her quey calves as you need, and also a bull calf, if you require him.

It is a matter of great importance to see that your cows are not what is termed too heavy or too light for your gang. Thus, if you have a farm dry and low situated, which bears grass plentifully and of a good quality, your stock of cows should be of the very largest size, and at the same time as fine as possible. Upon such pasture, and with such a stock, a much greater amount of profit will be realized than from cows of a smaller size. Again, upon lands of unequal surface, rather high than otherwise, bearing only a moderate quantity of grass, and

that not very fine, cows of a middle size, weighing say from seventeen to twenty stones, will be found more profitable; while upon decidedly high grounds, bearing a small quantity of grass, the stock should consist of cows from ten to fourteen stone. These will find a sufficiency of food where larger ones could not live; while they are not so readily injured by cold, fatigue, or other causes. It is probable that the middle size will be safest at first, and as your grass lands improve, see that you improve the breed of your cows along with it. To attain this, you do not need to change your stock; only provide a bull of a larger size than you would wish your cows to be, and in the course of a few years you can have them any size or breed you please.

Upon the subject of pasture I can say little; you must just take that in the first instance, as you find it. The usual rye-grass and clove mixed, forms our best pasture grass, but by the rotation of cropping, is seldom or never allowed to lie long enough to afford a firm rich pasture. When ground is thoroughly cleaned, manured, and laid down in grass, it would be better to let it remain for a considerable number of years. A very slight top dressing, with a little grass seed mixed in it, once in two years, would wonderfully increase its productiveness.

But whatever be the nature of your summer pasturage, you must have winter fodder for your cows. If you have any way of getting meadow hay, nothing can be better. You will, of course, have the straw of your oats, &c., which, though not so good, you will use; but along with either the one or the other, you will require to feed your milk cows with turnips, potatoes, carrots, or whatever else of what is termed green crop your land will best produce. You cannot keep them in a healthy and productive state through the winter without these, or some of them, boiled, if possible, and mixed with chaff or meal-seeds from the mill, if you have it. One meal per day of this kind of food will be sufficient, and that not too heavy, for though it is very useful, it is at the same time dangerous.

As the quality of the produce depends so much on the quality of the food, those who are very particular here give their cows, during winter, a considerable quantity of pease or bean meal. It is ground just the same as other meal, but not sifted, and as much as you can lift with both hands (a gowpin) put into the kit (tub) of boiled food; it makes the produce more rich; and it is quite astonishing how much more butter is obtained from the same quantity of milk with, than without it. Cabbage is also good food for cows, and scarcely a farmer in Ayrshire, but has a cabbage plot placed so that the water runs from the byre into it. The cabbage used are of the red bastard sort, a kind of mules between cabbage and early greens, and grow in such situations to a tremendous size; the mode of using them is as follows:—When the pasture becomes bare in the autumn, the cows are taken into the byre to be milked (which operation is always performed three times a day). The undermost blade is taken from each of the cabbage stalks, and the produce equally distributed among the cows, which they eat during the time of milking; and thus the double purpose is served, of making up the deficiency of the pasturage, and of keeping the cows quiet during the time of milking. Your natural sagacity will readily perceive, how, in this last particular, the lords of the creation follow the example of some of the lower animals. Now, if there are cabbage in America, have a cabbage plot—nothing that I know of is so useful for procuring quietly a large produce. We are all quiet whilst feeding.

Another important point gained by feeding cows during the time of milking is, that they milk much cleaner out. Some cows give their milk very freely when the udder is full, and yet become very stiff to draw near the end. When their attention is excited during the operation of milking, they will still be stiffer near the close; but it is of the greatest importance that a cow be clean milked, because if she is not, what remains coagulates in the udder, and you have gradually a less and less quantity, till the cow becomes dry altogether. In large dairies, the mistresses are so sensible of what may be lost by neglect in this way, that they either try the cows themselves, after the servants have done milking, or they have an after-woman, on whose abilities they can depend; and the milk thus obtained is called after-ings, and is, from its tendency to coagulation, nearly as thick and rich as cream. You will, therefore, pay particular attention to this, and see that your cows are milked perfectly clean.

Thus I have attempted shortly to point out the philosophy of feeding, and that particularly when milking; you will require to be regulated