

their drink of water mixed with oil cake, rye, or oatmeal. Salt should always be given to milch cows; it improves the quality and increases the quantity of milk. Turnips increase the flow of milk, but they give it a disagreeable flavour. Steaming or boiling the turnips will correct this unpleasant effect, which may also be removed by putting a little dissolved saltpetre into the milk, immediately after it is drawn. Linseed, peas, and oatmeal, produce rich milk. Bran and grains make good winter feed. Brewer's grains occasion a large flow, which, however, is poor in quality. Dairy cows should be fed frequently: three or four times a day in the summer, and five or six times in the winter; giving a little at a time, so that they may eat it clean.

When cows are kept near towns, merely for the sale of their milk, without any regard to the richness of it for the purposes of butter making, the method of feeding is somewhat different. At a celebrated dairy near Glasgow, the food for dairy cows consisted of hay, straw, grass, green barley, the Swedish and Aberdeen turnip, mangle-wurtzle, carrots, and cabbages, ground oil cake, bruised beans and other grains, distillers' wash, bran, chaff, &c. made into a warm mess with water at a temperature a little below blood heat, and given to the cows three times a day. The mess should be varied, so as to prevent indifference in the appetite of the animal. It is found that *quantity* of food is requisite for the secretion of quantity of milk; and that quality of food, although the richest, would not make as much milk as a larger quantity of an inferior quality—"as rich food by itself neither fills the stomach nor is easy of digestion, the general rule was to give as much good wholesome stuff to each cow

as it could eat clean up, always taking care to avoid the risk of a surfeit; for if the cow loathes her food, she will neither milk nor fatten." Young grass, particularly young succulent clovers, are apt to prove injurious to cows: and when they are very luxuriant, "it is well to mix them with a proportion of old hay or straw, adding a good quantity of salt to prevent the cows from swelling or blowing." When the herbage is wet, a greater proportion of dry ingredients may be used. When thus mixed it must be allowed to remain from 12 to 24 hours, frequently turning it to prevent heating. As the grass ripens, it may be cut and given by itself, but young and wet clover should never be given without a mixture with dry provender, by which means the cattle feed freely, without the risk of injury. In the Glasgow dairy establishment, when the grass became scarce, as the season advanced, turnips were substituted—the turnip crop was thinned, which improved those that were left, and afforded a supply of tops and roots, which were steamed together, and formed an excellent food. Turnips, when given either raw or boiled, should always be sliced. In this manner it prevents the risk of choking the animal, and when thus boiled they cool sooner than when the turnip is boiled entire. In the dairy establishment alluded to, the turnips cooked in this manner became "a complete substitute" for grass, after the season of the latter.

Grains when continued too long as an article of food, have a tendency to injure the cow, occasioning grain sickness. The best way to prevent this, is to mix a little boiled linseed, or cut wheat straw, with the grains; and cows should not be kept more than eight or ten months on them at any one time. The yellow and