

It becomes milder, and somewhat softer, and from cows will average 24 $\frac{1}{2}$ each; and in more easy to masticate by keeping. To London where the price is 4d. per quart, the yearly receipts will be 48 $\frac{1}{2}$ from each place and its moisture, I cover the cake on an average yield of 8 quarts per day. with saw dust, and chopped straw, or other food is consequently dear; hay is much similar material. This preserves it sweet, used at the cost of from 4 $\frac{1}{2}$ to 5 $\frac{1}{2}$ per ton; and free from mould. turnips sparingly at 16s. to 20s., and man-

For several years I used it when crushed, gold wurzel as high as 1 $\frac{1}{2}$ 10s per ton. mixed with shells of oats, chopped straw, and The dairy keepers in such localities buy their a sprinkling of bean-meal. The mess was cows at the fairs brought thither from a dis- moistened with cold water, well-blended; tance. It is of importance to look into the and though the cattle did not take it at first, condition of the cow, and other things being yet, by beginning with a little at a time, and equal, they will give a higher price in pro- persevering, I found that I could accustom portion for a cow well stored with flesh and them to eat any quantity I thought it desi- fat. It is a common saying, that condition rable to give them. I limit them to 4 or in a milch cow of equal milk is so much stronger to lay on flesh or fat, that not only 5lbs. of cake, and 1lb. bean meal each per- is the ailment of the food diverted to this day. More recently, since 1853, I have purpose, but to all appearance the accumu- had recourse to steaming; and now use a lated stores of fibrine or flesh, also of fat, portion of bean straw, rough seed, and chop- are drawn upon and converted into compo- ped straw, together with 4lbs. of rape-cake nents of milk, casein, or butter; with the and 2lbs. of bran. The whole is previously disadvantage of dear food, it may probably be mixed and then steamed together. The be consistent with economy in such localities bean straw and bran give a relish to the to afford their milch cows such supplies of mess, and the cattle devour it greedily. food as tend to the yield of milk without giv- There is an advantage in this method, as ing due attention to the maintenance of they do not require time to accustom them their condition. When the yield of milk is to eat the requisite quantity. I now call attention to the components of my fattening food. Up to 1852 it consisted of—

Chopped oat straw, and shell
of oats.....16lbs.
Swede turnip per day, for
use.....60
4lbs rape cake, and 2 lbs.
bean meal; or 5lbs. cake,
and 1 lb bean meal.....6

—
82lbs. per day
My food at present consists of steamed—
lbs.

Chopped oat straw, shells of
oats, and bean straw, 16
lbs.; 4lbs. rape-cake, and
2 lbs. bran, blended to
together before steaming.22 per day
60 lbs. Swede turnips, or 50
lbs. Mangold, given in a
raw or natural state.....60

—
82
Of dry chopped straw in
addition.....2
—
84

On this fare my cattle makes satisfactory progress. On light heifers, say, from 7 to 9 cwt. each, I look for an average gain, through a lengthened course, of not less than 14 lbs. per week each, and on cattle of a larger size, say from 10 to 12 cwt. each, an gain of from 14 lbs. to 18 lbs. per week each. When brought in fresh condition it requires 16 weeks, or, when lean, 20 to 24 weeks to make them fit for the market.

The economy of feeding milch cows varies with the circumstances of the locality. In the neighbourhood of towns, where milk is sold at 2d. per quart, the gross receipts

site proportion to a full yield of milk. I now proceed to describe the result of this treatment on my milch cows of which I maintain about 15. In March, 1854, I first began the practice of weighing such of my milch cows as are not in calf, a practice which has given me a far more accurate idea of the doings of my cattle than I could previously have pretended to. I find that those in full milk giving from 6 to 9 quarts per meal, or 12 to 18 quarts per day, are fully maintaining their weights. There is a variation, some having slightly increased, others slightly decreased, the balance on the whole being rather to gain. I particularly noted the one which has given the greatest quantity of milk. Soon after calving, her yield was near 10 quarts per meal, or 19 quarts per day. After milking 16 weeks, the quantity is reduced to 15 quarts per day. She is in full condition, and has weighed at each of the times exactly 11 $\frac{1}{4}$ cwt. As likewise one which has been longest under observation. She was bought in November, 1853, a week after calving. The first few days she gave but 5 quarts per meal; with better keep she increased to 6 quarts, and when at the height gave nearly 8 quarts a meal, or 15 quarts per day, which quantity she continued up to July. From that time till September her yield averaged about 6 quarts per meal, or 12 quarts per day. My weighing did not commence till February, up to which time she fully maintained her condition. Her weight was in—

	Cwt	qr	lb
February.....	9	2	0
March.....	9	1	0
April.....	9	1	14
May.....	9	2	0
June.....	6	2	0
July.....	9	2	0
August.....	9	2	12
September.....	9	3	2

It will be observed that in the March weighing a diminution of 28 lbs. occurred. A supply of grains was furnished for trial, which were brought once a week from a brewery at some little distance; the whole of the cattle in this feeder's care being similarly affected, showing a loss of weight, it was ascertained that the quantity assigned to him had been given too freely in the first two days, instead of being apportioned over the week. This had the effect of hastening the evacuations. On the practice being regulated the animals recovered their weight. I may here remark that a change to more relaxing food is always attended with an apparent loss in weight, whilst a change to more binding or costive food shows an increase will effect the quantity of material in process of evacuation, but may not influence the condition of the animal. From the early part of May to October my cattle both in milk and for fattening, are turned out into pasture during the day, and housed during the night; they are supplied each evening and morning with the steamed mixture.

For extra food, and during winter, I gave them the same materials and quantity as to my fattening stock with a more limited supply of roots, say 30 lbs. of kohlrabi up to February, and after then a like quantity of mangold wurzel, with an addition of 12 lbs. of meadow hay each per day. It will be observed that rape-cake and bran are rich in phosphate of lime, and also in phosphoric acid; and it admits of computation, that of these elements the quantity in the extra food is amply sufficient to supply the requi-