

From June to October they are supplied with mown grass each morning and evening, having a less quantity of the steamed mixture during June, July, and the early part of August, when the grasses are richer. From thence to October they have their full quantity.

I now proceed to examine the produce of the cows from the treatment described. Milk varies in quantity. If you give cows highly succulent food which supplies water in greater quantity than is requisite for their wants, the milk will be weak, having a greater proportion of water. Turnips given freely with straw, and more especially brewers' grains, are known to give poor milk. Men of experience in town in dairy practice tell me that no food has such an effect in reducing the condition of an animal as and having amongst my purchasers those who attach importance to the flavor and quality of their milk and butter, my attention has been particularly directed to insure these qualities. With this view, I give roots but sparingly (koh!) during the early part of winter, till the close of February, from thence till May. Mangold wurzel, not more than 30lbs. per day to each cow. On commencing with rape-cake, I was careful to observe its effects on the flavor; it was tested at my own table, and has under gone a like test by my purchasers. After years of experience I have no hesitation in saying that any objection of this sort is groundless. My dairy produce, milk and butter, maintain the repute of being good in quality and and flavor. I feel particularly called upon to notice this, from observing is stated in the report of a Leipsic agricultural society, that the feeding with rape-cake had an unpleasant effect on the taste of the produce.

Water.....	873.00
Butter.....	30.00
Casein.....	48.20
Milk sugar.....	43.90
Phosphate of lime.....	2.31
" magnesia.....	.42
" iron.....	.07
Chloride of potassium.....	1.44
" sodium.....	.24
Soda in combination with casein.....	.42

1000.00

From what has been said, the importance of noticing the weight of a cow in milk, with a view to trace the results of food, will be obvious; the cow under observation showed a remarkable steadiness, having maintained her weight from November to July—33 weeks—with an average yield of 14 quarts per day. From July to September, with 12 quarts per day, she increased in weight 56lbs., being at the rate of 7lbs. per week for the eight weeks. From the above analysis, it appears that 3½ gallons, equal to 35lbs. per day, contain of casein 1.69, to supply which the albumen of 5.70lbs. of rape-cake will be required; it will thus appear that the bulky food which I have described has been fully adequate to maintain the condition of the cow, whilst the casein of the milk is almost wholly represented by the albumen of the rape-cake of which 4lbs., and of the bran, of which 2lbs. were given per day. I may be allowed the remark that, in my reading on such subjects, I do not recollect to have observed an instance in which the relation of cause and effect of food and its results was so clearly defined and accounted for. The doing of this cow may

be regarded as a fair average of those under similar treatment, being singular only in holding to its yield of milk.

My cows, giving 6 quarts to 3 per meal, or 12 to 6 per day, and of which I keep nine to ten on the average, are not so long under treatment; many of them are bought as "strippers," giving about three quarts at a meal. With this yield of milk, which will average about seven quarts per day, they, without exception, when free from ailment, gain in weight from 7 to 8, and some even as much as 12 and 24lbs. I now think it proper to notice what may occur as an objection to the use of rape-cake on dairy produce—its flavor. Being in a district where wholesome sweet milk, which in the summer months is wholly from grass, is produced, and having amongst my purchasers those who attach importance to the flavor and quality of their milk and butter, my attention has been particularly directed to insure these qualities. With this view, I give roots but sparingly (koh!) during the early part of winter, till the close of February, from thence till May. Mangold wurzel, not more than 30lbs. per day to each cow. On commencing with rape-cake, I was careful to observe its effects on the flavor; it was tested at my own table, and has under gone a like test by my purchasers. After years of experience I have no hesitation in saying that any objection of this sort is groundless. My dairy produce, milk and butter, maintain the repute of being good in quality and and flavor. I feel particularly called upon to notice this, from observing is stated in the report of a Leipsic agricultural society, that the feeding with rape-cake had an unpleasant effect on the taste of the produce.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

Weekly Council.—Colonel Challooner, in the chair.

Early Tares.—The Rev. A. Huxtable transmitted a specimen of his early tares grown upon his Hill Farm in Dorsetshire, at an elevation of 600 feet above the level of the sea. The seeds furnished to him by Mr. W. H. Davis, of Marhall, near Blandford, were sown at the end of the first week in Oct., and the plants were at least one month in advance of other "early" Vetches sown several days before them. The maturity of these tares in growth and podding was in Mr. Huxtable's experience unrivalled; for, notwithstanding the severe frosts of the past April, they were in full bloom in the first week of May; and he thought it necessary to point out the importance of a crop which would be available for sheep feeding in the early spring. Professor Way remarked that great quantities of rain fell upon the high lands in Mr. Huxtable's district, and the atmosphere there was mild but damp. Mr. Baskerville Glegg stated that in Cheshire the farmers had

generally their crop of tares by the middle of May.

April Wheat.—Mr. Iltid Thomas, of Hill House, Swansea, favored the Council with his experience of the cultivation of April wheat in South Wales. He preferred it to all other varieties. He had sown it this year on the 3rd of May, and in 28 days it had grown to the height of six or seven inches. The land was a miserable, bottomless gravel in the coal-basin, very much exposed to every wind, at an elevation of some 500 feet above the level of the sea, where the vegetation was severely tried by the action of the copper and patent fuel smoke of that locality. The grain was strongly retained by the straw, and the wheat, therefore, stood wind well. It was sown last year on the 25th April, and on account of the unfavorable nature of the season, he had a very light crop of it, otherwise it would have yielded from 32 to 35 bushels per acre. He sold the produce at 9s per bushel, and for seed at 10s. He had found clover to succeed very well with it. He did not think it more exhausting than barley; it was sown at the same time as barley, with a similar yield of crop, and fetched double the price in the market. The bread made from it was brown, but very sweet and agreeable. This April wheat was a bearded one, and he highly recommended it for soils not good enough for other higher-bred varieties. Sir Matthew Ridley referred to the objection offered by the millers in the north of England against the April wheat, on account of its coarseness and thick skin. It was sown in April and yielded well, but it did not obtain a good price in the market. Colonel Challooner stated his successful cultivation of the Tatarera wheat, which he sowed very early in the year, and found it escape the ordinary ravages to which the wheat crop was liable. Mr. Dent, M. P., alluded to the excellent crops of April wheat grown by Mr. Thompson, of Moat Hall, in Yorkshire. His was a bearded wheat, and was sown at the latter end of April.

Manures.—Mr. Andrews, of Cornwall, transmitted a statement and sample connected with his preparation of a manure which he considered highly fertilising, and at the same time very cheap. Mr. Martin, of Elgin, communicated suggestions for the collection of manure from marine animals, to be obtained at fishing villages, by dredging, and by the employment of woman and children in collecting the refuse of fishing-boats.

Rick-Machine.—Mr. Lawes submitted the model of a machine he had found very useful in raising hay and corn to the tops of stacks, and for feeding the threshing-machines with sheaves. It was similar in its form and mounting to the common fire-escape; but having attached, at intervals, to an endless revolving web, the rake-work which carried up aloft the hay or corn required to be stacked. Colonel Challooner explained to the Council the very complete