

"It is in vain for us to speculate on the laws which really govern epidemics; they are mysteries which as yet defy all human interpretation. It is the old story of high authority, 'In the midst of life we are in death.' It were well for us if we sought the succour where alone we are told it is to be found. From time immemorial epidemics have prevailed; to the end of time they will prevail. We can study their symptoms, but I learn to predicate where they will flourish best. Whence they come, or whither they depart, is as mysterious to us as the travel of the wind. We may be content to offer to them food in man and beast, neglected, oppressed, and lowered to one and the same bad level; fed first on these they will feed yet on better food; they gather power from vile food to use it on those who fare sumptuously. The cows of a Cabinet Minister are not proof against the epidemic that slays the wretched cellar cow. We may live to see cholera equally impartial. But, inasmuch as the gate opened first to these diseases is where life, human or bestial, is in a state of neglect, it is as well for us to keep our lanes, alleys, lodging-houses, &c., as clean as we know we ought to keep our cowsheds."

### Sheep Husbandry.

### Great Sale of Leicester Rams in Britain.

THE romantic little border town of Kelso has, for upwards of a dozen years past, been celebrated for its great annual sale of rams. Situated so as to be easily accessible to the breeders of the shires of Roxburgh, Berwick, Selkirk and North Northumberland, the Kelso sale rings have from the first been well patronized. Until last year, the sheep entered for sale were not confined exclusively to Leicesters; but the growing popularity of this breed, in the districts above indicated, together with the unwieldy proportions already attained by the sale lists, determined the Union Agricultural Society—under whose auspices the auction is held—in devoting the sale entirely to this breed. On the present occasion, it took place on the 8th ult. Four commodious sale rings, flanked by long ranges of pens, were provided for the accommodation of the auctioneers, of whom there were no less than seven. The weather was unexceptionably fine;—the hot rays of the unclouded sun being tempered by a cooling breeze from the west. From the first, the competition was extremely animated, and offers were large and prompt. The sale of Lord Polworth's rams is generally regarded as the great event of the gathering, and when their turn came, we learn from an exchange, "the ring was surrounded by an eager and interested assemblage."

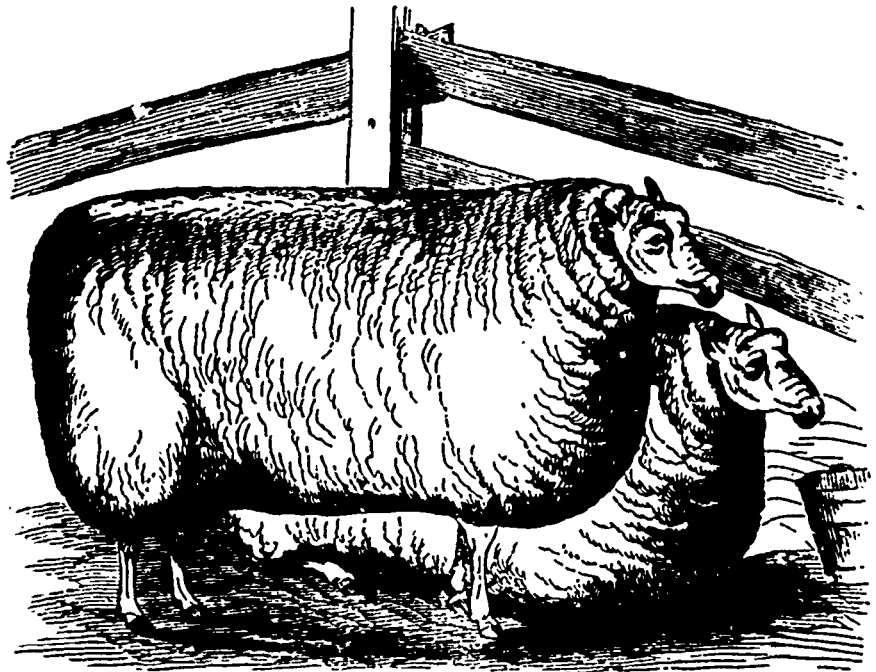
As examples of the prices going for single rams, we may mention the following, paid for specimens from that nobleman's flock:—£95; £83; £80; £75 £64; and £62. The average price of the entire flock being about £38. Several other animals, belonging to well known north country breeders, brought prices varying from £31 to £40. Several of the best rams were purchased for New Zealand, where the Leicester breed of sheep has obtained a firm position as wool producers—the quality of the wool being superior to the best grown in England. In that colony, the Leicester rams are not unfrequently put to Merino ewes and cross-bred Merinoes.

We regret that space will not admit of our appending the result of the sales which took place at the different rings. In connection with the returns of these great auction meetings, the *Kelso Mail* supplies some very valuable statistics, in regard to previous sales. A series of tables are given, exhibiting the highest and average prices, together with the number of entries during the last twelve years. We transcribe the last three:

Year.	No. of Rams entered.	Highest price.	Average do.
1863	2300*	200 0 0	221 6 3
1864	2100	70 0 0	26 19 9
1865	2006	95 0 0	37 18 10½

\* Various breeds included.

### FIRST PRIZE LEICESTER RAM, AT THE PROVINCIAL SHOW, LONDON, 1864.



THE PROPERTY OF MR. GEORGE MILLER, MARKHAM, O. W.

### Prize Leicester Ram.

The accompanying illustration is a life-like portrait of the magnificent two-shear Leicester Ram, to whom the first honours were deservedly awarded at the late Provincial Exhibition. We need not dilate on the fine form and massive proportions of this splendid animal. At present he is unquestionably the finest ram of his age and breed in Canada, and—as we observed in our notice of Mr. Miller's sheep at the recent Fair—he "would do credit to any flock-master in any country."

### The Dairy.

### Cattle as Cream Producers.

#### COMPARATIVE MERITS OF VARIOUS BREEDS.

Within the last few years, owing to the high prices obtained for butter, &c., in the neighbourhood of our large towns, it has become a matter of importance that strict and careful attention should be given to the dairy produce of the farm; and I was therefore induced to undertake a series of experiments upon the various breeds of milch cattle generally kept in this country, with the view of ascertaining their comparative value as cream producers upon different descriptions of food; and after three years of careful investigation, I beg to lay the result of my labours before the public for the benefit of my brother farmers and others interested in the subject.

The results were obtained by the aid of the Ordinary cream test glasses, three in number, and checked by one made specially for me by Messrs. Negretti & Zambra, and carefully graduated to 60ths.

In the first experiment the cows were grazed during the day, having hay and chaff only morning and evening.

#### EXPERIMENT 1.

Breed.	Mean Temperature.	Percentage of Cream.
Pure Shorthorn.....	52°	15.32
" Ayrshire.....	52°	13.47
" Devon.....	50°	14.87
" Channel Islands.....	52°	18.65
Cross from Channel Islands and Shorthorn.....	49°	17.92
Pure Brittany.....	53°	19.27

In the next experiment, where the breeds are placed in their order of merit, each cow had in addition one pound of linseed cake per diem.

#### EXPERIMENT 2.

Breed.	Mean Temperature.	Percentage of Cream.
Brittany.....	48°	20.00
Channel Islands.....	51°	18.98
Cross Breed.....	53°	18.21
Shorthorn.....	50°	16.05
Devon.....	49°	16.51
Ayrshire.....	52°	14.14

In experiment 3, each cow had, in addition to grass, a fair allowance of chaff, with one quart of brewer's grains, and one measure of Thorley's condimental food daily.

#### EXPERIMENT 3.

Breed.	Mean Temperature.	Percentage of Cream.
Brittany.....	50°	20.70
Channel Islands.....	49°	18.8
Cross Breed.....	50°	18.24
Shorthorn.....	51°	16.67
Devon.....	52°	6.67
Ayrshire.....	50°	14.09

In the following trial each cow had the same food as in the last, except that 1 lb. of Freeman and Harden's Royal Patent Cake was substituted for Thorley's food.

#### EXPERIMENT 4.

Breed.	Mean Temperature.	Percentage of Cream.
Brittany.....	54°	20.00
Channel Islands.....	53°	20.00
Cross Breed.....	48°	16.65
Shorthorn.....	50°	17.92
Devon.....	52°	16.08
Ayrshire.....	51°	14.94

For the fifth experiment 1 lb. of palm nut meal (from Messrs. Smith, of Liverpool) was substituted for the cake; in other respects the food was the same as in No. 3.

#### EXPERIMENT 5.

Breed.	Mean Temperature.	Percentage of Cream.
Brittany.....	53°	21.50
Channel Islands.....	53°	19.08
Cross Breed.....	52°	18.80
Shorthorn.....	50°	18.56
Devon.....	51°	17.00
Ayrshire.....	54°	14.94

From the two last experiments it will be seen that the cows lowest in the scale as cream producers show a greater improvement when fed upon a material containing much fatty matter (palm meal containing upwards of 25 per cent of fat,) than upon food consisting of little fat, but much albuminous and mucilaginous matter, while the reverse is observed in the breeds higher up the scale.

In the foregoing experiments three trials were made at each time, and each experiment repeated three times, over a space of three years (the trials being made shortly after each calving,) and the same animals employed in all the experiments except the last year, when two of the cows proved not in calf. The figures, therefore, are a fair average of the animals I had under trial, and are the result of nearly 270 examinations.—G. T. GAFF, in *Scottish Farmer*