

ECONOMY IN COWS.

By Cadet F. B. COTSWORTH, Dept. of Agriculture,
London College.

It is a well-known fact where a characteristic has been developed to a higher degree in a breed of animals than existed originally that the acquired characteristic may not be transmitted regularly. This explains the common observation that only a few of the progeny of a cow of unusual dairy qualities are the equal of the dam, and often her offspring may be quite ordinary for the breed. Individual selection therefore must be the basis of any improvement, and this is only possible by the keeping of accurate records of individual production.

The economy of production between different cows of the same breed is very marked indeed. A herd was tested by the Kansas Experiment Station on a farm where no records had been previously kept. There were 15 cows in the herd, and they are grouped as the 5 best, the 5 worst, and the 5 medium cows. A careful examination of the table will reveal many interesting things.

It will be noted that the first lot of five were kept at an excellent profit, the value of fat over cost of feed being on the average \$28.89.

The second lot were kept at an expense of only \$4.09 less per cow than the first lot, but the value of their product was \$22.54 less per cow.

The third group cost to feed only \$5.17 less per cow than did the first group, but they produced such a small amount of fat that its value was \$2.82 less than the cost of feed. It is very evident that a larger net profit would have been made if the third lot had been disposed of in the beginning. In addition to a loss of \$2.82 each on the feed, there is to be considered the labour of caring for this third lot, the interest on the money invested, and the room occupied in the barn.

Further, if this farmer had not had these

records kept for him he would probably have been keeping heifer calves from these unprofitable cows, and the loss therefore would again be increased as they are not likely to produce profitable offspring.

The money invested in these last five cows would be put to much better advantage if a cow of the ability to produce like number one had been bought and the saving in labour would be very considerable.

Cow number one produced more profit than the second group of five cows, and it probably did not take any more time to care for her than for any one of the last ten cows. The facts are there and cannot be disputed.

Many people are of the opinion that it takes longer to milk a high producer than a poorer producer, but, taken the year round, it is doubtful if the actual time for milking is as long. Poor producers are nearly always "strippers," and as such take longer to milk out dry than do cows with a good flow as they let their milk down to a full hand milker.

The last column is very interesting also, in view of the opinion commonly held that by consuming larger amounts of feed the cost of producing 1 lb. of butterfat or 1 gallon of milk is higher in these cows than in lower producers. There is no greater dairy fallacy, as the exact opposite is the case. Even where the cows are being strongly forced they show a handsome profit, except where very expensive labour and barns, which should be charged against the cows in proportion, and unreasoning feeding is found. Fortunately this latter case is decidedly in a very small and negligible minority.

One cow producing 400 lbs. of fat makes vastly more net profit than 2 cows producing 200 lbs. of fat each in a year, because it takes the same amount of feed to maintain a poor cow as a good cow.

In feeding, a cow must have sufficient food first to supply the demand for maintaining the normal functions of the body. After that, whatever food is consumed is available for the production of milk, so that a cow that is a poor feeder can never be a good milker because she does not eat enough to supply the wants of maintenance and then have a residue for milk production.

A careful study of the table shows that the most profitable cows consumed the larger quantities of feed. Further, it shows that of two cows consuming nearly the same amount of feed one was the larger producer and therefore the more economical producer. These are the cows we must find in our herds by keeping records, and breed from them to improve the production year by year. And in our breeding operations let us never forget to keep the bull better than the best cow.

F.B.C.

THE DEPARTMENT OF COMMERCE. As Seen by One of Its Staff.

In the Khaki University
There's nothing like the D. of C.
Other Departments all agree
That it is "princeps facile."
For some are studying eagerly
Commercial Law, Accountancy,
And Auditing, and hope to be
In time quite at the top of the tree,
Our future Captains of Industry.
Others are learning the mystery
Of Bills of Lading and Bottomry,
Of C.I.F. and F.O.B.
Of General Average, Registry,
And Transportation by land and sea.
And many others have learnt with glee
To keep their own books accurately,
To write both quickly and legibly,
Or to talk to "prospects" and make them
see
How a "deal" would help them financially.
There's Typewriting and Stenography,
And Banking in practice and theory,
And Business Methods from A to Zee.
And that's not all their activity,
But it's all the space they will give to me
To describe the work of the D. of C.

J.G.S.

NOTE.—Reserving its outburst for our final number, the Department of Commerce, evidently intended that no other Department should follow its example of speaking up for itself.—Ed.

I AIN'T AFRAID.

I ain't afraid,
Never dun nothin I wuz ashamed of—
Always kept my tugs tight,
Never cussed unless it was nessary,
Never caught er fish biggerin it wuz,
Er lied in a boss trade,
Er wept when I didn't hevter.

Going off somewheres Bill,
Don't know the way nuther,
Don't know whether it's East or West or
North or South,
Er road, er trail,
But I ain't afraid!"

—EBEN HOLDEN.

ONTARIO LUMBER TRADE.

Ontario lumbermen have sent a representative overseas to endeavour to secure some of the large orders of lumber required in reconstruction work in Great Britain, France and Belgium.

YEAR'S RECORD OF A HERD TESTED BY KANSAS EXPERIMENT STATION.

Cow No.	Lb. Milk.	Per cent. Fat.	Lb. Fat.	Cost of Feed.	Value of Product.	Value of Product over Feed.	Cost of 1 lb. of Fat.
First Lot.							
1 ...	9,116 ...	4.21 ...	383.7 ...	\$32.80 ...	\$73.17 ...	\$40.37 ...	\$0.085
2 ...	7,015 ...	4.43 ...	310.8 ...	30.61 ...	58.72 ...	28.11 ...	0.098
3 ...	8,054 ...	4.13 ...	332.8 ...	35.59 ...	62.77 ...	27.18 ...	0.106
4 ...	6,504 ...	4.59 ...	289.5 ...	29.26 ...	54.57 ...	25.41 ...	0.101
5 ...	6,509 ...	4.27 ...	277.9 ...	29.20 ...	52.59 ...	23.39 ...	0.105
Av.	7,439 ...	4.28 ...	318.9 ...	31.49 ...	60.38 ...	28.89 ...	0.098
Second Lot.							
.6 ...	5,742 ...	3.48 ...	199.8 ...	29.55 ...	38.77 ...	9.22 ...	0.147
7 ...	4,772 ...	3.92 ...	187.0 ...	27.25 ...	35.52 ...	8.27 ...	0.145
8 ...	3,475 ...	5.14 ...	178.6 ...	25.24 ...	32.84 ...	7.60 ...	0.141
9 ...	3,913 ...	4.14 ...	161.9 ...	27.27 ...	30.18 ...	3.41 ...	0.168
10 ...	4,200 ...	3.96 ...	166.3 ...	27.69 ...	30.97 ...	3.28 ...	0.166
Av.	4,420 ...	4.04 ...	178.7 ...	27.40 ...	33.75 ...	6.35 ...	0.153
Third Lot.							
11 ...	3,583 ...	3.79 ...	135.7 ...	26.75 ...	26.22 ...	0.43* ...	0.107
12 ...	2,903 ...	4.13 ...	119.9 ...	22.89 ...	22.02 ...	0.87 ...	0.190
13 ...	3,730 ...	4.23 ...	157.8 ...	31.22 ...	29.36 ...	1.86 ...	0.198
14 ...	2,141 ...	4.74 ...	101.5 ...	24.43 ...	18.18 ...	6.25 ...	0.240
15 ...	3,089 ...	4.06 ...	128.7 ...	26.32 ...	23.94 ...	2.35 ...	0.204
Av.	3,089 ...	4.19 ...	128.7 ...	26.22 ...	23.94 ...	2.82 ...	0.206

* Value of food over butter fat.