If the exact cost of feed were known and subtracted from the value of the milk, the profit above cost of feed for the best cow in any one of these herds would be many times that of the poorest cow.

For example, in herd No. 1, if it cost $120 to feed the best cow, the profit above cost of feed would be $180.94, and if it cost $70 to feed the poorest cow, the profit above cost of feed would be $6.16. Thus the best cow would make over twenty-nine times as much profit over cost of feed as the poorest cow, or in other words, it would take twenty-nine cows like the poor one to make as much profit above cost of feed as the best cow.

Using the same calculated feed costs, the best cow would produce 100 pounds milk for 99 cents, while the poorest cow would not produce 100 pounds milk for less than $2.29. This means that it costs the farmer $1.30 more to produce 100 pounds milk from the poor cow than it did from the good one, notwithstanding the fact that the feed costs for the good cow were nearly double those for the poor one.

High producers will lessen the cost of production considerably.

These facts are made known by keeping a record of each cow in the herd for the full lactation period.

TABLE No. XVIII.

INCREASES IN PRODUCTION OF MILK AND FAT MADE BY HERDS WHICH HAVE BEEN RECORDED.

Herd Number.	1918.			1919.			Increase per Cow.	
	Number of Cows.	Average Production.		Number of Cows.	Average Production.		Milk.	Fat.
		Milk.	Fat.		Milk.	Fat.		
		Lb.	Lb.		Lb.	Lb.	Lb.	Lb.
1	38	5,962	219·3	44	6,682	254·2	720	34·9
2	10	4,146	165·5	12	5,173	211·6	1,027	46·1
3	10	3,565	125·5	9	4,893	163·0	1·328	37·5
4	13	3,800	139·3	15	4,922	170·1	1,122	30·8
5	21	4,132	159·1	21	5,484	201·1	1,352	42·0

Herd Number.	1915.		1919.		Increase in fat per Cow.
	Number of Cows.	Fat per Cow.	Number of Cows.	Fat per Cow.	
		Lb.		Lb.	Lb.
1	9	215·0	7	258·0	43·0
2	10	159·4	10	219·2	59·8
3	6	96·5	7	167·9	71·4
4	5	197·9	5	213·1	15·2
5	6	138·3	6	188·8	50·5
6	7	323·8	8	344·3	20·5

These figures show what has been accomplished in a very short time by careful study of herd records. Such marked increases are quite common wherever cow testing is followed consistently with the intention of herd improvement.

In a creamery at Tryon, Prince Edward Island, thirteen patrons who have kept records for a number of years have all made increases ranging from 4 to 74 per cent in the average butter fat production per cow. The average increase per cow in these herds from 1915 to 1919 was 33·1 pounds fat, or the increased returns from each cow would be about $20 at prevailing prices for fat.

The Supervisor in Nova Scotia reports that the patrons of factories who were cow testing produced about 80 per cent more fat than patrons who never kept records of individual cows.