

of coarse fodder but having 10 lb. meal in addition, the average per cent. of fat in the milk from the same cows for four weeks was 3.30—practically the same as in the previous period. Lot 11 gave milk containing 3.66 per cent. of fat during the period on which they were fed the meal ration, and 3.84 per cent. of fat while receiving practically no meal for three weeks. Again we must conclude that for a short period of time with these cows meal did not affect the per cent. of fat or quality of the milk to any great extent.

2. Last year the poor ration gave results which showed a slight decrease in per cent. of solids not fat. The same is true for this year. The average of both Lots is 8.69 per cent. on the poor ration and 9.03 on the meal ration.

Table showing effect on quantity :

Date.	Total lb. of milk given.	Gain or — loss	Weight of cows at begin- ning of period.	Weight of cows at close of period.	Gain or + — loss	Ration.
Lot I.						
April 11—May 8....	2,384		3,265	3,068	-197	Ensilage and hay. Ensilage, hay and meal.
May 16 -June 12 ...	2,450	+66	3,068	3,114	+ 46	
Lot II.						
April 11—May 1....	1,486		2,918	2,967	+ 49	Ensilage, meal and hay. Ensilage and hay.
*May 16—June 5 ...	962	-524	+1,941	+1,770	+—171	

* One cow died.

* One cow sick for two days in this period.

+ Two cows only.

Conclusions as to Quantity.

1. With Lot 1 the extra amount of meal did not appear to have much effect on the quantity, as they gave but 66 lb. more milk in four weeks while getting meal than during the same length of time without meal. This may be accounted for in some degree by the fact that two of the cows in this lot had calved recently. Those in Lot 11 had been milking for a longer time when the experiment commenced.

2. Both Lots lost heavily in weight while getting ration No. 1, and gained considerably on the ensilage, meal and hay. One ration was not sufficient to sustain the live weight of the animals while giving milk, and the other caused them to lay on flesh without a corresponding increase of milk.

3. The cost per 100 lb. of milk from both Lots on ration No. 1 was 55.8 cents, while the cost when No. 2 was fed was \$1.18 per 100. Such a large quantity of meal could not be profitably fed to these cows.