

**COMPARISON OF MACHINE AND HAND MILKING FOR A TWO-WEEK PERIOD
WHEN COWS WERE ON GRASS.**

From September 5th to 18th, inclusive, all the cows were milked by hand. For two weeks previous to this, and for two weeks after, the record of four of the cows milked regularly by hand is given, for comparison with the records of seven cows milked with the machine for two weeks previous to hand milking and for two weeks after hand milking. No special tests were made of the fat content of the milk. If we average the periods before and after hand milking, we shall eliminate so far as possible the effects of lactation. The yields of milk for the machine milked cows are calculated in periods one and three by averaging three weighings and multiplying the results by fourteen to obtain the pounds of milk given in two weeks. In period 2, for the machine milked lot, and in all three periods for the hand milked cows, the milk from each cow was weighed morning and evening, daily.

The table shows the weights of milk given in all three periods by both lots of cows.

*Comparison of Hand and Machine Milking, August, September, and
October, 1906.*

Cows.		Period 1. Aug. 27 to Sept 4	Period 2. Sept. 5 to Sept. 18.	Period 3. Sept. 19 to Oct. 2.	Av. 1 and 3. (Hand milk- ing, Group 1 ; machine milk- ing, Group 2.)	Gain (+) Loss (-) in Period 2.
GROUP 1.						
No. 106	Regularly milked by hand.	311	259	221	266	— 7
" 98		251	221	205	228	— 7
" 122		361	306	261	311	— 5
" 101		131	114	117	124	—10
Totals		1,054	900	804	929	—29
GROUP 2.						
No. 69	Regularly milked with machine except in Period 2.	252	225	217	234.5	— 9.5
" 86		287	277	231	259	+18
" 90		378	305	326	352	+13
" 78		553	528	470	511.5	+16.5
" 87		370	386	326	348	+38
" 102		322	292	252	287	+ 5
" 70		357	320	284	325.5	— 5.5
		2,519	2,303	2,106	2,317.5	+75.5

When we compare the four cows regularly milked by hand, averaging periods 1 and 3 for comparison with period 2, we find that they all