

HERD MANAGEMENT TIPS TO DAIRYMEN

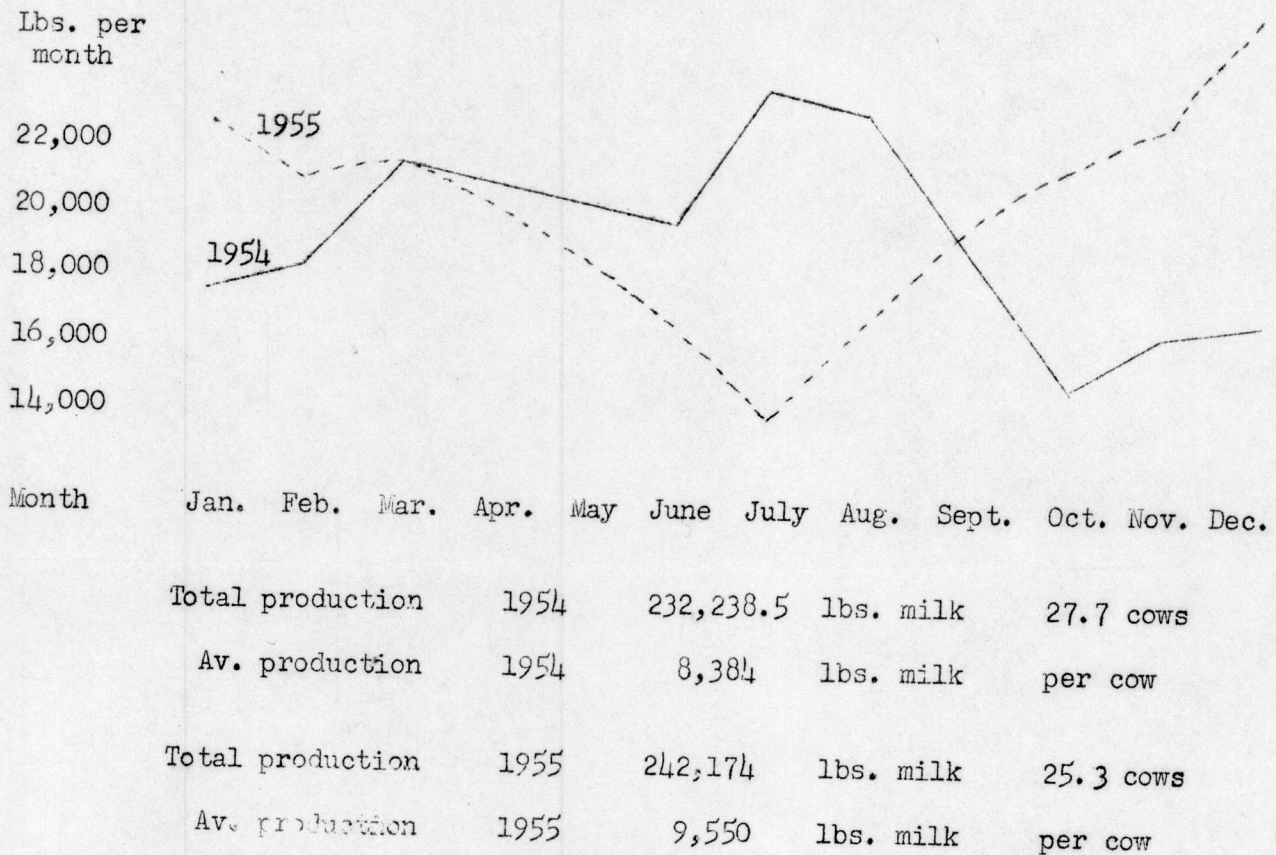
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Is it possible to change the flow of milk from a herd so that heavy production occurs during the months of the year when it is needed? Can you build up your base to a higher level? This can be done in a short time if you are willing to raise your heifers and let them replace some of your older, less profitable cows.

We have a program in the Station herd that seems to work very well and still raises our level of production.

Heifers old enough to breed are bred from November 20 to March 25th. No heifers are bred after March 25 until the next November 20th. If you follow this program each year, most of your cows will calve in the fall. Some of the others can be scattered throughout the year except for June and July. One or two may calve during the last of July but not before.

We started this kind of program in 1953. We bred 7 heifers from November 20 to December 20, 1953. They calved in late August and September 1954. We bred 8 more from November 20 to December 20, 1954. The following chart shows the total milk produced per month in 1954 and 1955:



The highest production in 1954 was during July and August while the lowest point in 1955 was in July. All the heifers that calved in August and September of 1954 were dry during July of 1955 making it the lowest point for the year. In 1955 no cows calved after February 7 until July 30 and still

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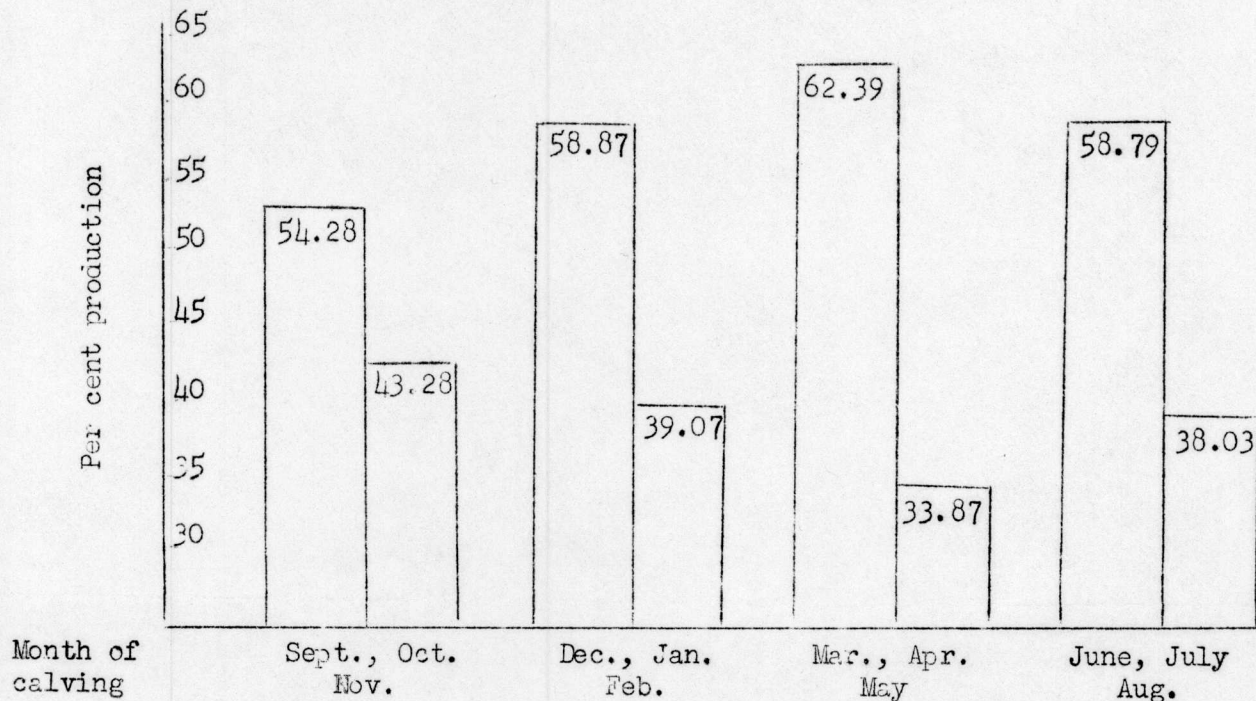
the production held at a very good level until those calving in August and September had to be dried off.

The Station had a Guernsey herd in 1948 when the Holstein and Red Dane bulls were introduced. Have these bulls raised the production of the herd in this time? The following is the production in 1948-49 and 1954-55, a period of six years.

Year	No. of cows	Total milk	Total fat	Av. milk per cow	Av. fat per cow
1948	10.4	60,908	2,924	5,857	281
1949	12.8	69,006	3,303	5,404	259
1954	27.7	232,239	9,074	8,384	328
1955	25.3	242,174	9,925	9,550	391

This herd in 1955 had only six cows over five years of age.

Some farmers have condemned heifers that calve in March, April and May because they drop off in production so fast in September, October and November. This is not the fault of the heifer but the result of the time of calving and the change from pasture to barn feed in the fall. We have made a chart showing the percentage of production during the first five months and the last five months of the lactation.



The chart shows that the cows calving in September, October and November hold up in production much better than those calving at any other time. The ones calving in March, April and May are by far the worst. The critical time in the lactation of the March, April and May cows comes when they go from pasture to barn feed. We found this past year that a lot of this drop in production could be avoided by starting to feed silage the last part of August while the cows were still on pasture. Since we were making silage anyway, we simply put a load of green silage in a bunk in the barnyard.

When the bunk was empty, another load was put in.

This chart was made from the records of 25 cows that calved during each month. If you know the month a cow calved and her production the first calendar month after calving, her year's production can be predicted, except for the part of a month at the beginning and end of the lactation. For example, a cow calving in September, October or November will give 54.28% of her milk in the first five months. If she gave 1,200 lbs. the first month, divide 54.28 by 5 = 10.85%; 1,200 lbs. milk divided by 10.85 = 1,105 lbs. milk; 1,105 X 5 = 5,525 lbs. milk for the first 5 months; 5,525 times 43.28% = 239,122; 239,122 divided by 54.28 = 4,405 lbs. milk for the last 5 months; 5,525 plus 4,405 = 9,930 lbs. milk for the 10 months except for the part of a month when she calved and the part of the month at the end of the lactation. This method will usually predict within 100 lbs. of actual production unless the cow becomes sick or something else happens to her during the lactation.

Cows calving during the months of March, April and May are hardest to hold up in production. They give most of their milk in the first 5 months largely because of the time in their lactation when they change from pasture to barn feed. Extra grain feeding during this period is not the solution to this problem but starting to feed roughage of a high quality is. When cows start to fall in production unusually fast, look to the quality and quantity of roughage being fed at this time.

A cow's inheritance for high production is not, in itself, a guarantee of high milk production. A cow capable of producing 20,000 lbs. of milk in one herd under very good conditions might produce only half as much or less if put in another herd under poor conditions. If you have a cow with high inherited production, what you get out of her is entirely up to you in the way you feed and manage her.

When we say that the daughters of 2595 have records of 11,837 lbs. of milk and 439 lbs. of fat, that does not mean that it is the top level they are capable of. It means only that they were much better than their dams under the same conditions. To get top production, each cow would have to be handled under ideal conditions as to feed and management. These same cows might be capable of 14 to 16,000 lbs under ideal conditions. Very few farmers handle their cows under ideal conditions. I know we do not have them at the Station.

The sisters of 2595 and 368, all out of the same bull, have the actual

records as follows:

Sisters from same bull	Av. production days	Lbs. milk	Lbs. fat
45	305	15,368	608

and were on twice-a-day milking. This is an average of over 51 lbs. per day for the 305 days. These records were made under very good conditions. Some cows in some of our herds in Alaska might make only 10 to 14,000 lbs. but still be just as good as these cows.

The Holstein bull 7969 is a grandson of the former world champion Carnation Royal Butter King. She made 38,606 lbs. of milk and 1,402 lbs. of butterfat. His five nearest tested dams averaged 22,606 lbs. of milk and 918 lbs. of fat.

The following is the breeding record for June 1954 to May 1955:

Month	1st Service		2nd Service		3rd Service		4th Service		5th or over		Total		%
	B	NR	B	NR	B	NR	B	NR	B	NR	B	NR	
1954													
June	55	34	20	15	6	3	3	2	3	2	87	56	64.4
July	46	26	25	16	3	3	3	1	6	4	83	50	70.7
Aug.	41	24	20	12	8	6	3	3	2	2	74	47	63.5
Sept.	32	18	18	14	10	6	3	3			63	41	65.1
Oct.	58	39	16	12	4	4	1	0			79	55	69.6
Nov.	74	47	17	7	7	3	1	1	1	1	100	59	59.0
Dec.	87	43	28	14	7	5	4	1			126	63	50.0
1955													
Jan.	90	38	33	14	21	8	4	2	2	0	150	62	41.3
Feb.	54	31	49	20	17	9	11	6	4	2	135	68	50.4
Mar.	65	35	33	24	30	20	13	7	4	2	145	88	60.7
Apr.	47	24	37	21	5	2	7	1	10	6	106	54	50.9
May	60	34	27	15	17	10	5	1	11	4	120	64	53.3
Total	709	393	323	184	135	79	58	28	43	23	1,268	707	55.76
Per cent	55.4		57.0		58.5		48.3		53.5				
Per cent of total	55.4		26.0		11.1		3.9						
1st two services		81.4											
1st three services				92.5									

The conception rate in 1955 has not been as good as in 1954. First services were better in 1954 than in 1955 but second services were better in 1955 so the total percentage of conception on the first three services in

1955 was 92.5% as against 95.3% in 1954. There were more cows harder to get with calf in 1955 than in 1954. There were only 58 fourth services in 1955 as against 48 in 1954, but more of these 58 came back beyond the fourth service. The repeat cows were the same cows. January was the lowest month of the year in 1955, as it was in 1954.

Dairymen interested in self-feeding silage should visit the Station during the winter. We are self-feeding a number of heifers. They seem to be doing very well and are not wasting any silage so far.

We have just had three daughters of the Red Dane bull D-597 finish their first calf records. Their average production at two years and five months of age was 11,002 lbs. of milk and 405 lbs. of fat.

Hei-fer	Born	Calved	Age	ME				DAM				
				Milk	Fat	Milk	Fat	Milk	Fat	Milk	Fat	Age
234	12-15-51	12-8-54	2-11-23	10,688	390	12,588	460	8,424	294	9,350	326	3-8-3
207	6-24-52	11-23-54	2-4-29	12,504	439	15,630	549	11,722	403	12,073	415	4-9-6
204	4-27-52	10-4-54	2-5-7	9,834	385	12,292	481	8,131	280	10,651	364	1-11-29
Average				11,002	405	13,503	496	9,425	326	10,691	368	

A sister of 207 from the same cow, but a purebred Holstein, produced with her first calf, 9,100 lbs. of milk and 355 lbs. of fat. The mature basis for this record was 11,102 lbs. of milk and 433 lbs. of fat. This heifer was about as good as her dam but not as good as the crossbred from the same cow. We do not have purebred sisters yet to compare with the other two crossbreds.

To emphasize what happened to a number of cows that calved in March, April, May, June and July, we took the records on 31 cows calving in these months and totaled their production by months. This is the result:

	August	September	October	November
Av. production for month	1,390	1,170	826	860
Per cent drop	15.83	29.4	44.12	
Av. production of Station cows fed silage starting late August	1,350	1,167	1,067	950
Per cent drop	13.56	8.57	10.97	

Cows do not normally drop this fast in production unless they are sick or do not get enough to eat. This indicates to me that we should start to feed silage the last of August and avoid a lot of this drop in production.

You will notice that these cows dropped almost 16% in September and over 29% in October, and then started to come back in production some in November. This definitely indicates a lack of feed during September and October. Cows normally will drop in production from 5 to 11% per month throughout the lactation. This fall in September and October is 2 to 3 times as much as normal. We did not have any cows at the Experiment Station that calved in this period in 1955 but we did have a few calve earlier that milked through August, September, October and November but were fed silage. They dropped only 13.5% in September and 8.6% in October. This was the 8th and 9th month of their lactations when they usually drop in production faster than in other months. If cows drop way down in production for any cause, except in the very first part of their lactation, it is impossible to get them back to full production. They will come back some but never as high as they were.

The following are the herds that we had complete records on for the year. You can find your herd average by number:

1955				
Herd No.	Av. No. cows	Milk	Fat	4% FCM
1	10.24	14,034	505	13,188
2	12.93	10,720	446	10,976
3	22.74	10,841	420	10,636
4	22.68	10,040	408	10,136
5	59.44	10,016	(380)?	9,706
6	25.24	10,286	368.9	9,648
7	8.00	10,301	358	9,492
8	23.04	8,739	313	8,195
9	15.6	8,450	306	7,975
10	6.0	7,762	280	7,297
11	49.3	7,597	273	7,210

Your herd number is _____

The following table lists all the cows that produced over 10,000 lbs. of milk in 1955. The 4% FCM is listed to arrange the cows in the order of production. Four per cent fat-corrected milk is obtained by multiplying the amount of milk produced by .4 and the amount of fat by 15 and adding the two.

Cow	Milk	Fat	4% FCM
534	20,530	702.8	18,754
067	16,878	572.9	15,344
2961	15,176	569.9	14,619
96-0306	13,830	568.1	14,053
2959	13,911	545.2	13,742

Cow	Milk	Fat	4% FCM
2960	14,001	523.1	13,447
545	13,829	526.2	13,424
96-0107	13,394	529.9	13,306
235	11,908	567.6	13,277
2958	13,552	516.9	13,174
96-0118	13,011	517.1	12,961
2705	11,748	547.8	12,916
2046	11,857	542.2	12,875
7 C 552	13,546	496.6	12,867
30	11,465	539.7	12,681
29	12,289	513.3	12,615
065	13,884	461.9	12,482
2085	13,150	472.8	12,352
35	10,989	527.4	12,306
88-9732	13,592	455.9	12,275
4 C 5137	12,616	481.1	12,223
96-0011	13,608	450.0	12,193
1169	11,451	497.0	12,035
96-0628	12,592	462.1	11,968
96-0121	11,902	480.1	11,962
36	11,555	489.1	11,958
1949	12,193	471.3	11,947
396	12,455	461.4	11,903
2100	12,409	460.5	11,871
96-0694	12,301	461.8	11,847
2702	11,790	474.6	11,835
9262	12,371	455.1	11,775
2519	12,736	438.3	11,669
520	11,658	463.8	11,620
2941	13,537	407.0	11,520
96-0372	11,508	459.2	11,491
2902	11,330	462.9	11,475
1266	11,603	453.0	11,438
25	11,411	441.1	11,181
671	11,150	447.7	11,175
14 C 9410	11,623	434.5	11,167
96-0829	11,753	424.0	11,061
2653	12,596	401.1	11,055
1153	11,373	432.5	11,037
1009	10,447	455.2	11,007
1950	10,556	450.5	10,980
1824	10,144	461.0	10,972
1855	10,824	441.9	10,958
2703	11,711	418.2	10,957
96-0368	11,952	411.7	10,956
1162	11,128	433.0	10,946
612	11,547	417.0	10,874
2015	11,520	415.5	10,840
2050	10,683	433.9	10,782
37	10,080	449.8	10,779
557	11,915	398.6	10,745
1345	12,379	379.7	10,647
42	10,151	437.8	10,627
88-9733	10,419	429.9	10,616
79769	11,525	399.4	10,601
96-0627	11,341	401.5	10,559
2631	11,392	399.3	10,546
2047	10,183	431.2	10,541
824	11,731	389.1	10,529
1197	10,802	413.4	10,502
0507	11,765	383.9	10,464
88-9731	10,732	407.1	10,399
1856	11,576	382.2	10,363
1923	10,597	400.1	10,320
91 D 7256	11,483	381.4	10,314
20	11,043	391.8	10,294
BX 62993	10,952	393.5	10,283
2972	10,576	403.3	10,280
1898	11,138	388.0	10,275
2657	11,128	385.4	10,232
C 8292	10,665	391.3	10,143
233	11,472	363.8	10,046
3544	10,545	387.0	10,023