

PROGRESS REPORT FOR

Special Report No. 6
January 1957

Alaska's DAIRYMEN

Alaska Agricultural Experiment Station cooperating with the
Matanuska Valley Dairy Breeder's Association

William J. Sweetman

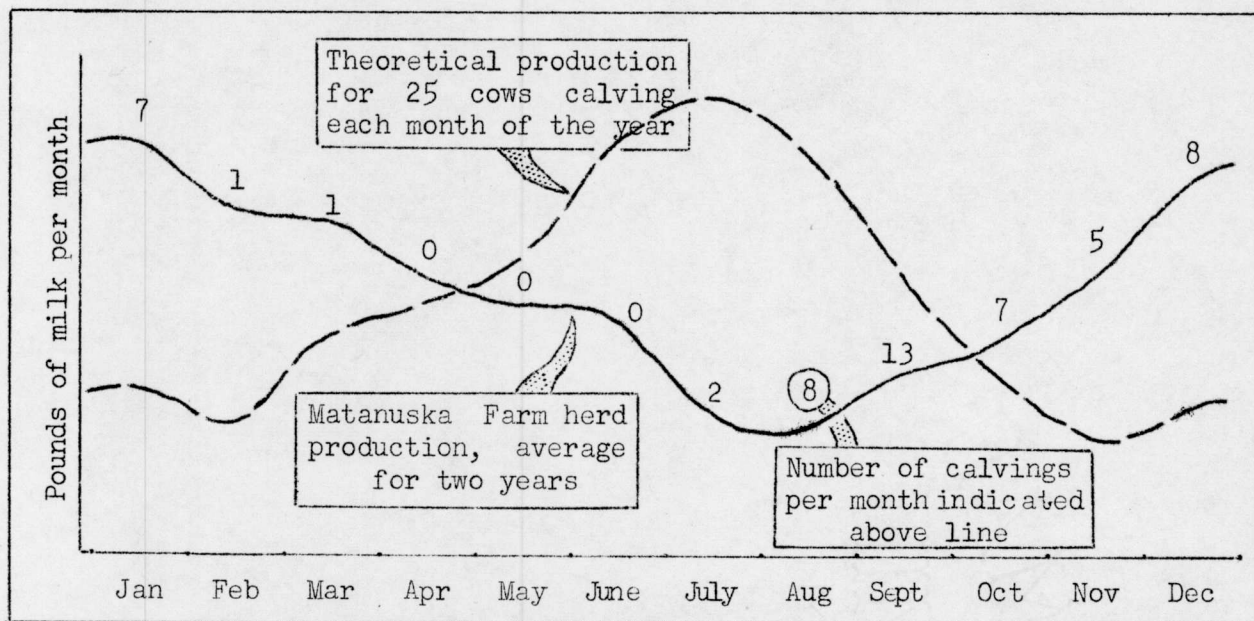
The Matanuska Valley dairy industry continues to be plagued with the problem of having more milk than can be distributed in early summer, while fall production does not supply the demand. Fluctuations between heavy summer production and low production during September, October and November are difficult to control. Cows calving normally in the spring drop off so fast beginning in late August that they are ruined for fall and winter production. For this reason, the Experiment Station has advocated breeding heifers so they will calve in late July, August and September. This means they must conceive from early October through December. Breeding should begin about October 1. It is almost impossible to change the calving dates of a herd except by starting replacements at the right time.

BOOST FALL PRODUCTION !

The biggest problem is catching heifers in heat. After their first service they must be watched very closely so that, if they come back in heat, they will not be overlooked. Many heifers, like older cows, do not exhibit extreme heat symptoms. You must be very observant or you will miss some. This will throw your herd schedule out of kilter and may delay an improvement program for a year or more. Keep a good record of heat periods for all heifers. This is a management factor that cannot be emphasized too much.

At the Matanuska Experiment Station Farm an effort was begun three years ago to change the calving dates in the dairy herd. Since then all replacement heifers have been calving during August, September and October. During this period old cows calved chiefly from November through January. This program has been successful in changing the peak production period from July to December and January. It has not been successful in improving production during October when the Valley industry needs milk to supply a demand built up during the remainder of the year. The effect of this change in calving dates in the Matanuska herd is shown in the graph on the following page.

This shift required three years. It probably involved culling out more old cows and replacing them with heifers calving at a later (or earlier) date than most dairy farmers could afford. A similar change would probably take five or six years in the average 20-cow herd. Depending solely on this method to even out year-around production in the Matanuska Valley will therefore probably



take a number of years. Heifers can be started at the right time -- so they will calve when you need the milk most -- but they must be very good breeders to hold this schedule. They must be managed skillfully, with a good deal of attention given to heat records and observation.

IT IS POSSIBLE THAT A VALLEY-WIDE SHIFT IN CALVING DATES WILL NOT BRING UP FALL PRODUCTION TO EQUAL THAT FOR THE REST OF THE YEAR. THIS IS BECAUSE OF POOR FEED DURING LATE SEPTEMBER AND OCTOBER. You can improve fall production by starting to feed silage in late August before your grass pasture begins to lose its feeding value. Even so, most cows will probably drop off if grass pasture is a major feed resource. Late annual pastures of oats and peas may help maintain summer production levels. Another expensive possibility is to barn feed all summer. Barn-fed cows calving from late July through September hold their production rate very well. A less expensive method is to start barn-feeding cows as soon as they calve.

By barn-fed we mean silage that has been in the silo for about a month before it is fed. Peas and oats or brome cut in late September or early October and fed direct does not seem to hold production as well as silage that was made earlier and has gone through the fermentation stage.

In a well managed dairy herd, milk cows should be bred back at 60 days after calving but not less than 50 days. Then you have a chance for a second service before her 90-day period is over. This again emphasizes the need to watch all cows closely for their heat periods. Keep a record so none will be missed. You cannot miss many heat periods before you have real trouble in maintaining herd production. If some cows do not appear to come in heat, call for the veterinarian to treat them. This should be done if no heat symptoms have been detected within 60 days after calving. Don't let a cow go too long or you'll be giving her free room and board for a longer time than necessary.

IMPROVE CONCEPTION RATES

In the eight years of artificial breeding in Alaska about 56 per cent of all cows have conceived on their first service. Another 24 per cent conceived with the second service and 11 per cent required three services. Only about 9 per cent of all cows proved troublesome. These are being culled and replaced in most herds. Replacements should be ready each year so that when a cow becomes troublesome she can be culled. The table below summarizes the experience of those herds that have been in the program continuously for the entire eight years.

Year ending	1949	1950	1951	1952	1953	1954	1955	1956	TOTAL
Number of cows serviced. . .	170	212	246	289	341	451	299	329	2,337
Number of services	361	446	448	559	580	750	598	590	4,333
Services per calf,	2.2	2.1	1.8	1.9	1.7	1.7	2.0	1.8	1.8

This is a very good record. There are many herds in the States that have required $2\frac{1}{2}$ to 3 services per calf, both naturally and artificially. About half of the herds in the States required 2 to 3 services per calf. About six per cent of all cows and heifers never get with calf. The following table (Journal of Dairy Science, October 1953, by Davis and Brost of Nebraska) summarizes the record for the University of Nebraska herd between the years 1904 and 1948. Included are 32 years of natural service and 12

Conception for various services in the University of Nebraska dairy herd.

Number of services	1st calf	2nd calf	3rd calf	4th calf	5th calf	6th calf	7th* calf	Number of calves	Per cent
	Per cent								
1.	37.5	43.2	51.0	54.7	59.1	49.0	33.3	437	44.6
2.	17.4	22.7	19.6	23.6	14.1	21.6	20.5	196	20.0
3.	14.0	13.6	11.8	12.3	14.1	17.7	13.3	134	13.7
TOTAL for first 3	68.9	79.5	82.4	90.6	87.3	88.2	67.1	767	78.3
4.	9.0	7.7	7.2	3.8	1.4	7.8	8.7	71	7.2
5.	8.0	4.5	4.6	3.8	1.4	---	9.5	52	5.3
TOTAL for first 5	85.9	91.7	94.1	98.1	90.1	96.0	85.3	890	90.8
6.	6.7	4.1	2.0	.9	1.4	2.0	4.6	38	3.9
7.	3.3	1.8	4.6	---	1.4	---	4.6	22	2.2
8-10	3.9	2.2	.12	.9	7.2	2.0	5.5	30	3.0
TOTAL for 10 . . .	---	---	---	---	---	---	---	980	99.9

*Seven or more calves

years of artificial service. In this time there were 980 calvings with an average of 2.52 services per conception. The number of cows and heifers that did not conceive were disregarded and not included in this table.

Calving record for the Matanuska Experiment Station Farm milking herd, 1948-1956

Interval between calves	Cows calving	
	Number	Percent
300 - 365	68	45
366 - 395	40	27
396 - 425	23	16
426 - 455	5	3
456 & over. . . .	14	9

It is possible to better the Matanuska Valley conception record. In the herd at the Matanuska Experiment Station Farm there have been 150 cows that have calved two or more times during the past eight years. If every cow had conceived right on schedule the interval between calves would have been 365 days. In this herd the actual interval averaged 382 days -- or just 17 days over a year (See table at left). There were 68 cows with intervals under 365 days and 82 with intervals over a year. Only 42 of the calving intervals was more than 30 days over a year. Seventy-two per cent of the cows calved between less than a year up to 30 days over a year. Only 13 per cent were over 60 days off in repeating yearly intervals. This record is much better than obtained in many Stateside herds. Constant vigilance is needed to attain a schedule like this. Cows must be closely observed and men handling the cows must be supervised.

1955 - 56 BREEDING RECORD

Here in Alaska, our breeding record continues good except for a few herds where more attention to heat periods might lead to improvement. If your herd requires more than two services per calf, you should try to find out why. Maybe some of your cows are being serviced too soon after dropping calves. Some of them may need treatment by a veterinarian. Some of the poorest cows perhaps should be culled out. The overall record for twelve months beginning with September 1955 is shown on page 5.

Of the 1,059 cows administered first services during this 12-month period, only 84 required more than three services. Stated another way, during this year 92 per cent of these cows conceived with three or less services. This figure compared with 78 per cent for the Nebraska record described above. While this comparison is not entirely valid, it does show that Alaska cows need no more services than those in the States. Heifers born and raised in the Territory seem to conceive a lot easier than those raised in the States.

Artificial insemination record for the Matanuska Valley in 1955 and 1956.

Month	Number of cows serviced and number conceiving for each service.											
	First		Second		Third		Fourth		Fifth*		Total	
	B	NR	B	NR	B	NR	B	NR	B	NR	B	NR
September . . .	.76	40	24	15	16	8	9	6	5	3	130	72
October . . .	.86	51	43	23	15	8	8	2	6	4	158	88
November . . .	.96	58	36	21	10	4	7	7	3	1	152	91
December . . .	.96	50	31	19	15	8	3	2	7	4	152	83
January . . .	102	45	43	18	15	9	7	3	4	2	171	77
February . . .	.90	45	46	30	26	12	10	3	7	4	179	94
March . . .	117	72	68	46	25	16	13	9	10	10	233	153
April . . .	.66	44	42	30	18	15	6	4	2	1	134	94
May . . .	.71	41	32	23	19	11	3	1	6	4	131	80
June . . .	.69	38	35	26	10	4	10	10	4	1	128	79
July . . .	.89	57	26	15	13	8	4	2	2	2	134	84
August . . .	101	46	32	15	13	8	4	2	2	1	152	72
TOTAL . . .	1,059	587	458	281	195	111	84	51	58	37	1,854	1,067
Percent --												
Conceiving . . .	.55.4		61.4		56.9		60.7		63.8		57.6	
Of years total.	55.4		26.5		10.5		TOTAL for first three services		92.4			

*Fifth and subsequent services

NOTE: B means number of cows serviced and NR means number that conceived

1956 PRODUCTION RECORDS 1956 complete production records were collected on only ten herds in the Matanuska Valley. These records are listed in the following table. As in other years, individual farmers may identify their herd by referring to your code number written in the box at the right.

Herd number	number of cows	Herd production		Average per cow	
		Milk	Fat	Milk	Fat
1 . . .	12.1	102,052	3,984	8,468	331
2 . . .	26.7	280,543	10,154	10,530	381
3 . . .	18.4	168,923	6,195	9,196	337
4 . . .	23.7	254,697	10,275	10,746	434
5 . . .	9.2	85,899	3,083	9,336	335
6 . . .	12.3	121,201	4,844	9,822	393
7 . . .	25.4	248,154	9,854	9,762	388
8 . . .	11.5	140,843	5,156	12,290	450
9 . . .	21.4	231,008	8,359	10,805	391
10 . . .	25.7	283,715	11,227	10,638	437
Average . . .				10,294	393

Your herd
number is

Herd production totals listed here run 10 to 15 per cent above milk sales. During the year these ten herds contained a total of 186 cows. They produced an average of 10,294 pounds of milk and 393 pounds of fat. Any herd that averages over 10,000 pounds of milk in the Matanuska Valley under average conditions is doing very well indeed.

On the last page is shown the production records of nearly 100 cows that produced over 10,000 pounds of milk in 1956. You can pick out your cows by their numbers.

Matanuska Valley cows producing over 10,000 pounds of milk in 1956.
(You can pick out your own cows by number)

Cow number	Production in pounds			Continued ---			
	Milk	Fat	4%FCM				
				96-0221	10,823	445	11,004
				2029	11,034	437	10,969
				96-0152	10,904	438	10,932
				2705	10,108	458	10,913
96-0003	15,310	596	15,064	1128	11,143	428	10,877
1950	13,854	633	15,037	96-0216	11,440	420	10,876
96-0204	15,238	590	14,945	2962	11,999	405	10,874
96-0306	14,422	591	14,634	618	11,860	408	10,864
534	15,479	561	14,606	1856	12,708	537	10,852
96-0207	15,323	535	14,105	96-0111	10,091	453	10,831
067	15,586	510	13,884				
065	14,601	529	13,775	1266	11,072	425	10,804
96-0118	13,734	552	13,774	1949	11,267	418	10,777
2046	12,345	571	13,503	96-0318	11,295	415	10,743
				36	10,788	427	10,720
2961	13,190	526	13,166	2589	11,827	399	10,716
1855	12,708	537	13,138	2958	10,608	430	10,693
83584	14,035	489	12,949	96-0243	10,335	429	10,569
1801	13,171	506	12,858	694	11,474	397	10,545
2941	14,295	473	12,813	96-0002	11,767	389	10,542
96-0107	12,918	507	12,772	2100	11,094	403	10,483
96-0205	13,257	492	12,683				
2702	12,227	512	12,571	96-0246	10,503	418	10,471
96-0217	13,254	467	12,307	96-0313	10,266	421	10,421
96-0154	12,582	475	12,158	96-0110	10,077	422	10,361
				3955	10,253	416	10,341
235	11,083	514	12,143	2018	10,750	400	10,300
45	12,063	477	11,980	671	10,347	410	10,289
1924	12,106	474	11,952	2657	10,852	396	10,281
2960	12,266	468	11,926	96-0224	10,205	411	10,247
2703	12,562	456	11,865	27	10,096	407	10,143
96-0033	12,334	462	11,864	2097	10,789	386	10,106
96-0161	11,686	475	11,799				
S-4	11,231	487	11,797	96-0174	10,635	386	10,059
2085	12,377	452	11,731	96-0209	10,455	385	9,957
96-0136	12,125	456	11,690	1169	10,180	388	9,892
				2654	10,603	374	9,851
2015	12,804	433	11,617	96-0658	10,209	379	9,769
96-0368	12,076	452	11,610	0-13	10,189	373	9,671
35	10,994	474	11,508	88-9732	10,909	351	9,629
96-0829	12,316	437	11,481	96-0255	10,128	371	9,616
96-0153	11,050	464	11,380	96-0253	10,391	358	9,526
2781	12,439	426	11,366	96-0023	10,023	366	9,499
47	11,887	431	11,220				
2050	11,013	453	11,200	507	10,807	342	9,453
96-0236	10,862	453	11,140	96-0151	10,098	438	9,481
96-0234	11,761	425	11,079	2582	10,131	359	9,437
				96-0363	10,137	356	9,395
1543	11,148	439	11,044	257	10,079	327	8,936
25	11,255	434	11,012				