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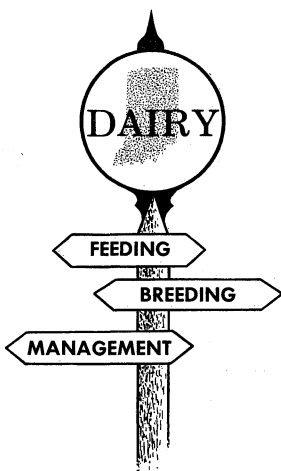
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Dairy Production Records-- First Records Affect Future Performance

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Summary

High first lactation production does not reduce a cow's chances for a long useful life.

Feed and manage your dairy cows for high production.

Introduction

High production during the first lactation is sometimes thought to reduce a cow's chances for a long useful life. Finding out what happens to high, medium and low producing two-year olds as they mature should confirm or refute this idea. Do those cows with the higher first records leave the herd at a younger age than those with average first records? Several recent studies will help us answer this question.

Purdue Records

The first study we will consider is based on 179 Holstein cows in the Purdue herd who were born between 1929 and 1950. It indicates that as the first milk record increases, the cows tend to remain in the herd longer. Culling for low production caused the lower two groups to remain in the herd fewer months. Culling for low production is necessary for efficient dairy farming.

Relatively little culling for low production occurred in the top three groups and yet

those cows with first records that averaged about 11,650 pounds tended to have one more lactation than those that averaged about 9,650 pounds. The average age at first calving was approximately the same for each group.

Table 1. Age of cows leaving Purdue herd and production records

Average standardized production	Number of cows	Average age cow left herd
pounds		months
11,650	28	91
10,650	37	85
9,650	47	79
8,650	29	73
7,650	38	67

Other Evidence

A USDA study based on 79 herds with 3,879 daughters of 123 Holstein sires points out similar results. Those cows with higher first lactation production of milk or milk fat remained in the herds for a longer time. In the highest-producing herds, the higher-producing cows remained for 1 to 1 1/2 lactations more than the lower-producing ones.

In another study from New York, records of artificially sired cows of five breeds were evaluated. These records were divided into four groups according to the difference

between the first-lactation record and the herd-mate average. These groups were then

compared on the basis of their next four lactations with the results shown in the following table.

Table 2. Percent of cows having additional lactations in New York study

Breed	Lactation	First milk production record:			
		1500 lb or more above herd-mates	0 to 1500 lb above herd-mates	0-1500 lb below herd-mates	1500 lb or more below herd-mates
percent completing additional lactations					
Ayrshire	2nd	87	86	72	58
	3rd	73	66	45	28
	4th	56	49	31	17
	5th	42	32	21	10
Guernsey	2nd	(81)	79	70	(54)
	3rd	64	57	45	27
	4th	46	37	27	13
	5th	30	23	17	6
Holstein	2nd	82	80	75	61
	3rd	64	59	53	37
	4th	47	41	35	23
	5th	(32)	27	22	(15)
Jersey	2nd	85	81	71	56
	3rd	66	60	48	27
	4th	49	43	32	16
	5th	32	30	19	10
Brown	2nd	81	74	78	57
Swiss	3rd	62	55	60	31
	4th	37	41	42	20
	5th	31	33	27	11

These tables show, for example, that (81) percent of the Guernsey cows with first records at least 1500 pounds above their herd-mates had a second record and that (54) percent of the Guernsey cows with first records at least 1500 pounds below their herd-mates had second records. Those Holstein cows with first records at least 1500 pounds above their herd-mates were more than twice as

likely to have 5 records when compared with those 1500 pounds below their herd-mates ((32) percent vs (15) percent).

Records made in the University of Nebraska dairy herd indicated that the better the record as a two-year old, the longer the cow remained in the herd.

First standardized record, milk fat pounds	Number of cows	Average number of lactations	Percent with three or more records
400 or less	67	1.7	22.4
401 - 450	84	2.1	29.7
451 - 500	85	2.7	44.7
501 - 550	98	3.3	59.2
551 or more	68	3.5	58.8

The results from these studies point out that high production during the first lactation is associated with a longer productive life. There is no evidence that the higher feeding and management necessary for high production is undesirable.

A cow that starts out above average tends to stay above average and to remain in

the herd longer. On the other hand, the fact that about 25 percent of the cows are replaced every year indicates considerable opportunity for improvement. Better preventive health programs will help dairy farmers reduce the number of cows that must be replaced each year because of udder or reproductive troubles.