



## Weaning Calves Early from Drylot

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### Summary

Percentage Simmental and Hereford calves gained slightly more (13 lbs./head) while nursing their mothers than 83 herd mates that were weaned early at 49 ( $\pm$  27) days of age.

Percentage Simmental cows whose calves were weaned early had a higher conception rate than percentage Simmental cows that nursed calves (93% vs. 89%). Dams of calves weaned early rebred 17.6 days sooner than nursing dams.

### Introduction

This is the second year of a study to gain information to formulate into recommendations for early weaning. The first year's results were published in the 1977 Cattlemen's Day report.

We do not think early weaning is advisable for all calves. However, there are situations when weaning calves early might be advantageous. These situations could include: (1) cows maintained in confinement, (2) emergency conditions such as drouth, (3) induced twinning, (4) fall calving where heavy winter feeding is required, (5) selling old cows before they nurse down, and (6) to accelerate rebreeding.

### Experimental Procedure

Seventy-nine part Simmental and 58 Hereford calves were used in this 170-day trial (April 19 to October 6). All calves were from cows in the confinement study. Calves were weighed April 19 so they could be allotted to an implant study, and weaned early (May 12) when their dams were allotted to rebreeding studies. All dams of Hereford calves weaned early were sold May 12 so effects of early weaning on rebreeding of Hereford cows could not be studied.

Calves weaned early were housed indoors in groups of 10 with access to fresh water and their creep ration was as listed in Table 7.3. Fourteen days after weaning, all calves were moved outdoors into one lot with access to creep feed, fresh water, and salt. All calves weaned early received approximately 4 lbs. per head per day of high quality native grass hay the last 90 days of the experiment.

Calves that continued to nurse their mothers did so in drylot. Starting May 12 these calves had access to the creep feed listed in Table 7.3, and to salt and fresh water. As the calves got larger, they

ate from the feed bunk with their mothers.

Cows were bred artificially during 32 days starting May 22, then they ran with a bull for the next 29 days.

### Results and Discussion

Calves nursing their mothers gained slightly, but not significantly more during the test than calves weaned early. In 1976 the calves weaned early gained slightly more than those that continued to nurse their mothers. Results from the two trials indicate that calves can be weaned early successfully.

A respiratory illness affected both early-weaned and nursing calves during the summer of 1977. Death loss in the calves weaned early was 2.7%; for nursing calves it was 8.1%.

Dams of calves weaned early had a slightly higher conception rate than dams of nursing calves (93% vs. 89%) and rebred 17.6 days earlier. The difference, although not statistically significant, indicates an advantage for early weaning related to rebreeding the calves' mothers.

Table 7.1. Performances of early-weaned and nursing calves.

Breed	Sex	Weaned early			Nursing		
		No.	Total gain (lbs.)	ADG (lbs.)	No.	Total gain (lbs.)	ADG (lbs.)
Percentage Simmental	bull	12	443.6	2.61	11	425.0	2.50
	steer	5	385.0	2.26	3	334.7	1.97
	heifer	28	281.7	2.25	14	406.6	2.39
	Total	45	398.6	2.34	28	406.1	2.39
Hereford	bull	6	327.3	1.93	8	356.4	2.10
	steer	8	369.6	2.17	6	371.3	2.18
	heifer	24	333.3	1.96	5	325.8	1.92
	Total	38	340.0	2.00	19	353.1	2.08
Average, all calves		83	371.7	2.19	47	384.7	2.26

Table 7.2 . Effect of weaning calves early on their mothers' rebreeding.

	Calves weaned early	Calves nursing dams
Total no. cows	42	27
No. cows not rebreeding	3	3
Cows not rebreeding, %	7	11
No. cows rebred	39	24
Avg. days from calving to rebreeding	86.4	104.0
Advantage (days)	-17.6	

Table 7.3. Creep rations for early-weaned and nursing calves.

Ingredient	Early-weaned calves' creep ration (lbs.)	Nursing calves' creep ration (lbs.)
Rolled oats	436	1300
Rolled corn	742	366
Dehydrated alfalfa		92
Calf Manna <sup>1</sup>	305	
Wet molasses	65	61
Dicalcium phosphate	11	
Limestone	11	
Soybean oil meal	436	84
Dry molasses		51
Pre-mix <sup>2</sup>	22	
Salt	22	10
Aureo-10	15	14

<sup>1</sup>By Albers Milling Co.

<sup>2</sup>Pre-mix, lbs. per 1000 lbs.: soybean oil meal, 444; ground oats, 443; vitamin A, 33; Aureomycin-10, 30; trace mineral, 50.