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Weaning Calves Early

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Summary

An 85-day, post-weaning growth rate for 30 calves weaned at an average age of 110.5 days was compared with the growth rate of 30 calves nursing their mothers the same period. Average age of the nursing calves at the start of the test was 106.2 days.

All calves received creep feed free-choice. The early weaned calves were divided into two groups; one group (A) received direct-cut alfalfa wilted with rolled milo free-choice; the other (B), field-wilted haylage plus rolled milo free-choice. Twenty-four of the later weaned calves were confined to dry lot with their mothers, and 6 (D) nursed their mothers on pasture.

Average daily gains (lbs.) and feed costs per pound of gain for the calves in groups A through D, respectively, were: 2.97, \$0.232; 2.50, \$0.254; 3.03, \$0.309 and 2.87, \$0.229. Feed cost per pound of gain was computed by combining 85 day feed cost of cow and calf and dividing by the calves gain.

Introduction

Confinement systems for managing beef cows and weaning calves early might lead to cheaper calf production because their mothers would need less feed. That idea was tested during the summer of 1973.

Experimental Procedure

Sixty Simmental percentage calves, 33 bulls, and 27 heifers were used: 13 cow-calf pairs were on native grass; 47 cow-calf pairs in dry lot. All calves had access to creep feed (table 14.1) for three weeks before the trial started July 6, 1973. Seven calves from pasture and 23 from dry lot were randomly assigned by sex and age to two groups for early-weaning (groups A, B). Twenty-four cow-calf pairs remained in dry lot (group C) and 6 cow-calf pairs remained on grass (group D). Average age in days and range in days for each of the four groups were: A, 113.1, 73-136; B, 108.1, 64-131; C, 105.4, 50-133; and D, 109.3, 76-136. The trial was completed September 29 when calves in groups C and D were weaned.

All calves had continued access to creep feed throughout the 85-day trial. Group A was fed direct-cut alfalfa wilted with rolled milo;

group B, field-wilted haylage plus rolled milo. The alfalfa treatments are described on page 40. Group C had access to the feed bunk when their mothers were fed a silage-grain ration, and group D could graze native grass.

The cows in dry lot were divided into two groups, those nursing calves and dry cows, and fed as indicated in table 14.2. Cows on native grass received no supplemental feed during the trial.

Results and Discussion

Performances of the calves are shown in table 14.3. Several group B calves bloated during the first few weeks of the trial. They were fed prairie hay free-choice the last 28 days of the test. Their average daily gain was less than that of calves in any other group. Calves nursing their mothers in dry lot had the highest average daily gains and cost per pound of gain.

Table 14.1. Creep Ration for All Calves

Ingredient	Lbs.
Rolled oats	1455
Flaked milo	353
Soybean oil meal	91
Alfalfa crumbles	91
Pre-mix ^a	10
Salt	10

^aPre-mix, lbs. per 50 lbs: rolled milo, 38.7; trace mineral, 5.0; aurofac-10 3.0; Vitamin A, 3.3.

Table 14.2. Eighty-five Day Feed for Cows (7/6 - 9/29)^{a, b, c}

Ingredient	<u>Confined cows, nursing^d</u>			<u>Confined cows dry^d</u>			<u>Pasture cows nursing</u>	
	daily intake (lbs)	total intake (lbs)	total cost	daily intake (lbs)	total intake (lbs)	total cost	days	total cost
Sorghum silage	40	3400	\$23.80	24	2040	\$14.28	--	--
Flaked milo	7	596	22.95	4	340	13.09	--	--
Cottonseed oil meal	1.5	127.5	14.98	--	--	--	--	--
Native pasture	--	--	--	--	--	--	85	\$28.33
Eighty-five day cost			\$61.73			\$27.37		\$28.33

^a - Salt & minerals ad libitum

^b - as fed basis

^c - Feed costs:
 sorghum silage - \$14.00/T
 flaked milo - \$3.85/cwt
 cottonseed oil meal - \$235/T
 native pasture - \$60/season

^d - 50,000 IU vitamin A daily

Table 14.3 Performance of Calves

Indicated factor	Treatment Group ^a			
	A	B	C	D
No. of calves	15	15	24	6
Avt. wt. 7/6, lb	242	233	239	262
Avg. wt. 9/29, lb	494	446	496	506
Avg. daily gain, lb	2.97	2.50	3.03	2.87
Daily feed/calf, lb ^b				
creep ration	8.60	7.82	6.25	9.70
alfalfa	1.51	.77	--	--
milo	1.34	.78	--	--
prairie hay	--	.75	--	--
Total 85 day feed/calf ^b				
creep ration	730.67	665.00	531.24	824.17
alfalfa	128.66	65.55	--	
milo	114.10	66.24	--	
prairie hay	--	63.75	--	
85 day feed cost/calf ^c	\$31.04	\$26.71	\$17.74	\$27.53

- ^a A = early wean, direct cut alfalfa + rolled milo
 B = early wean, field wilted haylage + rolled milo
 C = nursing mothers in confinement
 D = nursing mothers on pasture

^b Air dry basis

- ^c Feed costs:
 creep ration - \$66.70/T
 alfalfa - \$35.00/T
 milo - \$3.85/cwt
 prairie hay - \$25.00/T