

## Creep-Feeding Fall Calves

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Creep-feeding is a method of increasing the gain and finish of suckling beef calves. In any feeding system increased feed consumption usually results in increased gain. One of the goals in creep-feeding, therefore, is to provide a palatable feed that will be consumed in large quantities as a supplement to the pasture grass and the milk produced by the dam. Creep-feeding is practiced with the expectation of increased profit.

Careful consideration must be given to many factors when deciding whether or not to creep-feed. These factors include the age and milk-producing ability of the dam, season of calving, availability of pasture, the kind of creep-feed, and the market outlook.

One would expect creep-feeding to be of greater importance with fall calves than with spring calves. The fall-calving cow nurses her calf during the winter when the dry forage of the native grass pastures is of lowest nutritive value. Unless the level of supplemental winter feeding is very high, the milk production of the cow would be expected to be lower than if green grass were available. Providing a palatable creep-feed during this season would greatly increase the nutrient intake of the calf.

In a four-year study with mature fall-calving cows (Okla. Agr. Exp. Sta. MP-55:72) creep-feeding increased the calf gains an average of 70 lbs. When the cows were fed an average of 1.5 lbs. of cottonseed meal per head daily, creep-feeding increased gains 87 lbs. Creep-fed calves from similar cows fed on a higher plane (2.5 lbs. cottonseed meal and 3 lbs. of grain) were 52 lbs. heavier at weaning than those which were not-creep-fed. Creep-feeding was not profitable in either comparison but the data indicated that creep-feeding only until spring grass becomes available may be a satisfactory practice.

### Procedure

On December 18, 1959, 108 calves born in October and November were divided into 6 lots of 18 head. The calves remained with their dams, high quality grade Hereford cows, in native grass pastures. The cows were fed an average of 2.5 lbs. of pelleted cottonseed meal per head daily.

The calves in Lot 1 were not creep-fed. Those in Lots 2 and 3 were creep-fed a mixture consisting of 55 percent steam rolled milo, 30 percent whole oats, 10 percent cottonseed meal and 5 percent cane molasses. In Lot 2 the calves were creep-fed until weaning in July, while those

supplemental feeding of the cows was discontinued because adequate green grass was available. The calves in Lot 4 were fed the above mixture after grinding and pelleting. The calves in Lot 5 received alfalfa hay and those in Lot 6 received pelleted alfalfa hay. Creep-feeding was also discontinued on April 30 for Lots 4, 5, and 6.

## Results

In the period from December 18 until April 30 the creep-fed calves in Lots 2 and 3 (see Table 1) gained an average of 167 lbs. (162 and 172 lbs.) This is 44 lbs. more than the 123 lbs. gained by the non-creep-fed calves in Lot 1. The consumption of creep-feed during the winter was 300 and 239 lbs. for Lots 2 and 3, respectively. The average creep-feed consumption of 270 lbs. of the mixture in these two lots cost \$6.75.

In the 86-day period from April 30 until weaning (July 25) the calves receiving the creep mixture (Lot 2) gained 194 lbs. and those not creep-fed (Lot 1) gained 159 lbs. The total increase in gain (winter and summer) due to creep-feeding was 74 lbs. (Lots 1 vs. 2). The total creep-feed consumption was 922 lbs. The creep-fed calves were fatter and

Table 1.—Creep-Feeding Fall Calves

Lot Number	1	2	3	4	5	6
Creep-Feed	None	Mixture <sup>1</sup> Until Weaning	Mixture <sup>1</sup> Until Spring	Pelleted Mixture Until Spring	Alfalfa <sup>2</sup> Hay Until Spring	Pelleted Alfalfa Hay Until Spring
Number of calves <sup>3</sup>	17	18	17	18	17	17
Average weight per calf, lbs.						
Initial (Dec. 18, 1959)	139	148	136	126	130	134
Spring (Apr. 30, 1960)	262	310	308	276	277	292
Weaning (July 25, 1960)	421	504	454	427	428	434
Gain to spring (134 Days)	123	162	172	150	147	158
Gain April to July (86 Days)	159	194	146	151	151	142
Total gain (220 Days)	282	356	318	301	298	300
Creep-feed per calf						
Pounds	---	922	239	194	308	224
Cost <sup>4</sup>	---	\$23.05	\$ 5.98	\$ 5.04	\$ 3.08	\$ 3.36
Dollar Values						
Value of total gain <sup>5</sup>	70.50	87.22	19.50	75.25	74.50	75.00
Value of gain minus creep-feed cost	70.50	64.17	73.52	70.21	71.42	71.64

<sup>1</sup> Creep-fed a mixture of 55 percent steam rolled milo, 30 percent whole oats, 10 percent cottonseed meal and 5 percent cane molasses.

<sup>2</sup> Baled alfalfa hay fed in an open bunk.

<sup>3</sup> Originally there were 18 calves per lot. A total of four calves were removed from the experiment due to death of cow or sickness of the calf. The causes were apparently not related to the creep-feeding treatments.

<sup>4</sup> Creep-feed mixture cost \$2.50 per 100 lbs. Alfalfa hay cost \$20.00 per ton. Pelleted alfalfa hay cost \$30.00 per ton. The pelleted mixture cost \$2.60 per 100 lbs.

<sup>5</sup> The selling price for Lot 2 was \$94.50 per 100 lbs., while the selling price for the other lots was



heavier and sold at \$24.50 per 100 lbs., which was \$.50 per 100 lbs. less than the selling price of the other calves. The value of the increased gain due to creep-feeding was not as great as the cost of the creep-feed, therefore, creep-feeding reduced profits.

Although the calves in Lots 2 and 3 received identical treatment until April 30, one group gained 162 lbs. and the other gained 172 lbs. to that date. Creep-feeding was stopped in Lot 3 on this date. In May, June, and July these non-creep-fed calves gained 146 lbs. This was 48 lbs. less than the 194 lbs. gained by the calves creep-fed until weaning. The difference in total gain was 38 lbs. (356 vs. 318 lbs.); however, the cost of the increased gain was greater than the increased value of the calf. Creep-feeding only until spring increased returns more than \$9 when compared to creep-feeding until weaning.

Different creep-feeds were compared in Lots 3, 4, 5, and 6. In these lots creep-feeding was stopped on April 30 when adequate green grass was available. The calves fed the mixture until spring (Lot 3) gained 22, 25, and 14 lbs. more than those fed the pelleted mixture, alfalfa hay and pelleted alfalfa hay, respectively. Pelletting the mixture decreased feed consumption, winter gain and profit. Summer gains after creep-feeding were nearly equal in these four groups.

Gains of calves creep-fed alfalfa hay and pelleted alfalfa hay were nearly equal and were nearly the same as gains of those fed the pelleted mix but slightly less than gains of those fed the mixture in the meal form. The calves consumed less alfalfa pellets than long alfalfa hay. The return for these two groups was nearly equal.

### Summary

Creep-feeding a concentrate mixture until spring increased gains an average of 44 lbs. The winter gains of calves creep-fed a pelleted mixture, long alfalfa hay and pelleted alfalfa were nearly equal and were an average of 29 lbs. greater than the gain of calves not creep-fed. During the summer, creep-feeding the mixture increased gains 35 lbs. Summer gains of calves creep-fed only until spring were intermediate between those creep-fed until weaning and those not creep-fed. The value of the calf gain minus the cost of the creep-feed was lowest when the calves were creep-fed until weaning, greatest when calves were creep-fed the mixture until spring and intermediate and nearly equal in all other groups (not creep-fed, pelleted mix until spring, alfalfa hay until spring, pelleted alfalfa until spring.)