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Beef Cattle Management Update

COW-CALF DECISION MAKING:
CREEP FEEDING AND CREEP GRAZING

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The combination of expensive feeder calves and (relatively) cheap feed may make creep feeding of beef calves a viable management practice this year. However, while creep feeding may be the right choice for some cow-calf producers, it can be a poor choice in other situations. Presenting creep feed to calves during late summer or early fall, when milk production has dropped and calf gains and nutrient requirements are increasing, will increase weaning weights in almost all situations. Whether that increase will be profitable is dependent on several factors including:

Price of calves and feed. Current high calf prices may favor creep feeding this year in comparison to other years. If calves convert feed to **additional** gain at a ratio of 9:1 and calves are worth $90/cwt, creep feed costs of up to 10 cents per pound will be profitable. Creep feed conversion ratios can vary considerably, reported studies include values ranging from 4:1 to 30:1. Table 1 describes the return that can be expected for each dollar invested in creep feed with various cost and price inputs. Since creep feed does not require any unusual ingredients, one should be able to keep costs at approximately 6 to 8 cents/lb, depending on the source of ingredients. Feed conversion should be 10:1 or better for large frame, muscular calves on moderate or poor milking cows and poorer than 10:1 in other cases.

Table 1. Return per dollar of creep feed with varying feed cost, feed conversion ratio, and price of calves[a,b]

	Calf price = $90/cwt				Calf price = $60/cwt			
	Feed cost, cents/lb				Feed cost, cents/lb			
Feed conversion ratio	6	8	10	12	6	8	10	12
6:1	2.50	1.88	1.50	1.25	1.67	1.25	1.00	.83
10:1	1.50	1.13	.90	.75	1.00	.75	.60	.50
14:1	1.07	.80	.64	.54	.71	.54	.43	.36

[a]Values are dollars returned/dollar invested. Values less than 1.00 indicate creep is not profitable.

[b]Assumes no change in price received for creep fed calves, this assumption may be invalid (see below).

An important consideration is that creep feeding may lower the price per pound that is paid for feeder calves due to higher weights and more condition. This should be considered when calculating the breakeven cost of creep feeding. Most feedlot operators (or backgrounders) claim that they will pay less for high condition calves than for thin calves. A survey of sale barns in Kansas confirms this, although it is not always the case.

Table 2. Effect of condition on feeder calf price

Condition	Average price, $/cwt
Very thin	55.11
Thin	64.26
Average	64.07
Fleshy	62.48
Fat	57.50

Lambert et al. (1983)

Milking ability of cows. Creep feeding will make more sense in a herd with poor milking cows and calves with high genetic potential for growth than one with heavy milking cows and slow growing calves. Milking ability and growth of most herds cannot simply be classified as "low" or "high" but will fall somewhere around average. If calves are in thin condition at 4 or 5 months of age, their nutrient needs, based on their ability to grow, probably exceed nutrients provided by the cow and creep should be considered.

Marketing plan for calves. If all calves are to be sold at weaning, maximum pre-weaning growth is essential and creep may make sense. If, however, calves will be retained for at least a few months, or fed to slaughter, it probably does not. When calves are retained, it may be more efficient, both economically and biologically, to wean calves in slightly thin condition and feed them to obtain compensatory gain rather than to creep feed them and wean in higher condition.

Forage availability. Creep feeding, or even early weaning, makes more sense in drought years, especially when calf prices are high. However, when calf prices are low or feed cost is high, selling cows may be the best alternative when feed is short.

Management and labor considerations. Creep feeding requires some added work, equipment and facilities. Young calves are very susceptible to digestive disorders due to inconsistent feed intake. Care should be taken to start calves on creep gradually and to closely monitor and maintain intake once calves are started. Creep should be observed daily and filled with fresh feed often, calves should never be expected to eat stale or moldy feed. Once calves are started, creeps should not be empty for more than a few hours at a time, so that overeating is avoided.

General Considerations. An advantage of creep feeding is that weaning stress will be reduced and newly weaned calves will start on feed faster. Creep for the final 20-30 days prior to weaning is usually adequate to obtain these benefits.

Extremely high energy creep diets should be avoided in most cases. Care should be taken so that heifers that will be kept for breeding do not get too fat, as they may begin to deposit fat in the udder, reducing

milk production capability. Whole or cracked oats, with a pelleted protein supplement (protein content of creep feed should be at least 14%) make very good creep. Whole or cracked corn can be used as well. Calves seem to like to chew whole grains. Rapidly fermentable carbohydrates, such as wheat and barley should be used only in limited amounts. Some cattlemen prefer to add molasses or other flavoring agents since calves can be finicky eaters. Dusty, finely ground feed should be avoided.

CREEP GRAZING

Creep grazing may be a more logical choice for some producers but requires more effort and prior planning than creep feeding. Allowing calves, but not cows, to graze an area of extremely high quality forage may be a feasible alternative to providing purchased grain as creep. This is especially true when (or in locations where) the cost of purchased grain is high. The theory is that the high protein and digestible energy in lush alfalfa, birdsfoot trefoil, or clover provides an ideal supplement to milk in meeting a calf's nutrient requirements.

Creep grazing can be accomplished through two means: forward creep, or creeping a separate area. Forward creep, used in a rotational grazing system, is allowing calves to graze ahead of cows and thus, select the best forage. Use of a separate area involves maintenance of a small pasture, which is only for calves, adjacent to the large pasture(s) where cows graze. In either case, calves are allowed access to their grazing area through creep gates that cows cannot pass through.

Creep grazing is not easy. Maintaining the forage quality required will require extra management. Facilities must be adequate so that calves can enter the creep area but cows cannot. Heavier, faster growing calves may be susceptible to bloat, depending on the forage source used.

Table 3. Typical creep feeds

	Example 1	Example 2	Example 3
	---------- % as fed ----------		
Whole or cracked corn	40	25	60
Whole or rolled oats	40	50	30
Molasses	10	5	3
Soybean meal	10	7	
20% protein pellets	20		
Total	100	100	100