

CALVING EASE

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Colostrum and First Week Growth

Calves face huge challenges during their first week of life. It is difficult to achieve growth during that seven-day period. It is common for some calves actually to lose weight.

How important is colostrum in helping calves meet these challenges and preventing weight loss? To answer this question an experiment was designed to compare gains among calves that either did or did not receive colostrum. In addition, each of these two groups was further divided between intensive and conventional feeding levels.

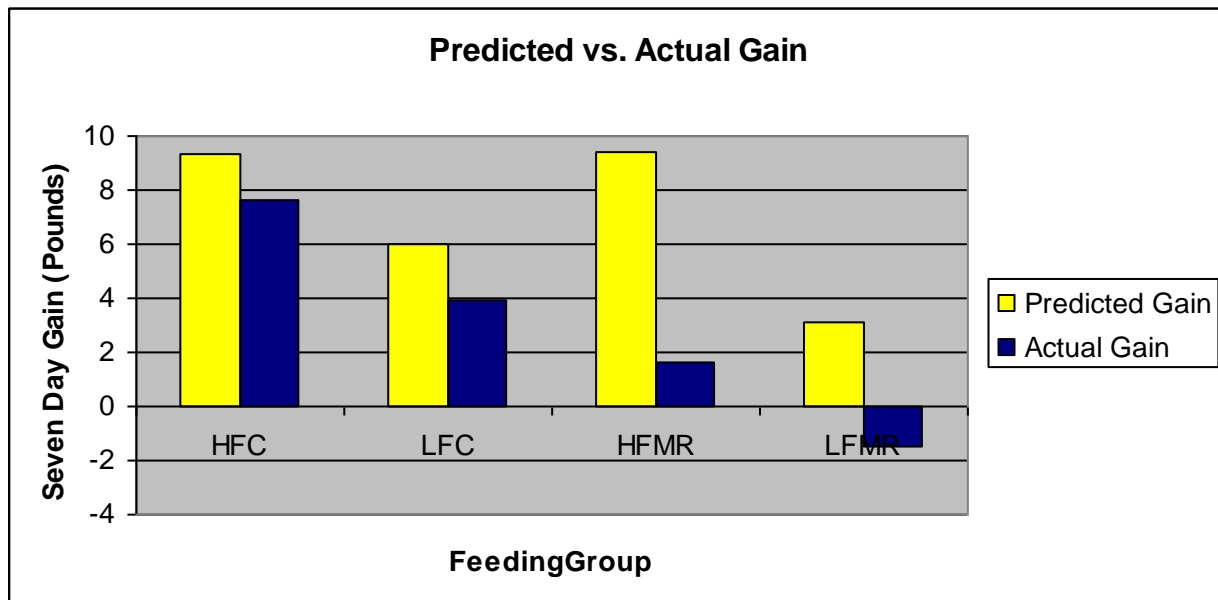
Thus, the groups looked like this:

HFC = High feeding level with colostrum

LFC = Low feeding level with colostrum

HFMR = High feeding level with milk replacer instead of colostrum

LFMR = Low feeding level with milk replacer instead of colostrum

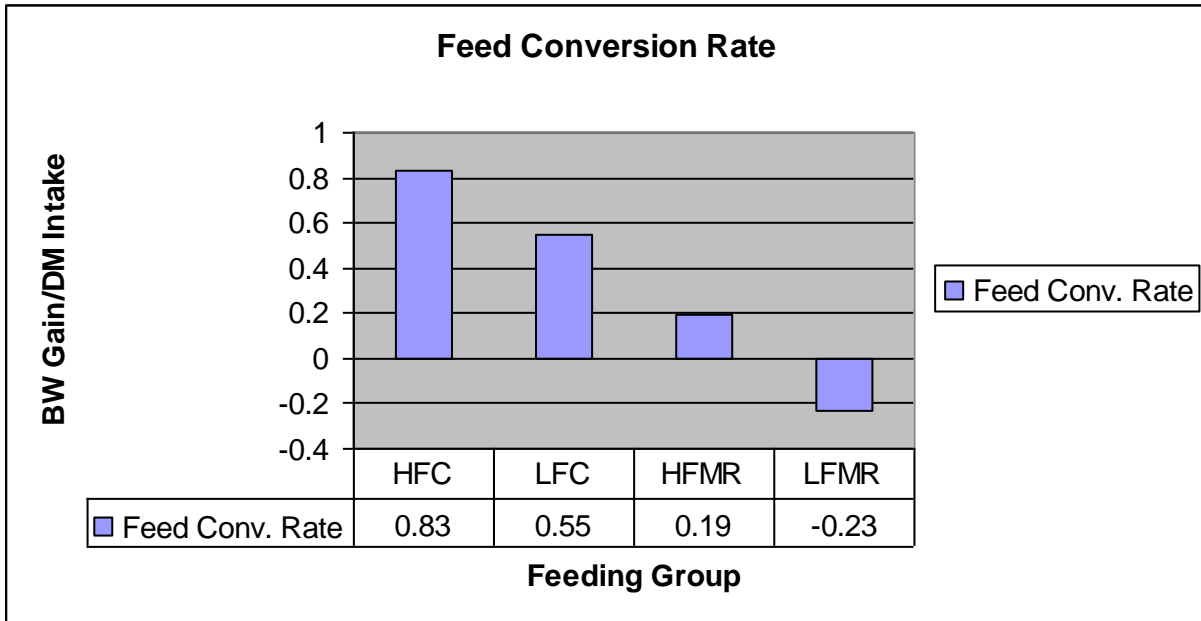


They found that gains depended on both colostrum feeding and the feeding level (total dry matter intake). See the dark right-hand bars in the chart above. Regardless of the feeding rate, the colostrum fed calves gained more than those not receiving colostrum did.

Take a second look at the HF feeding groups. The gap between the predicted and actual gains for the high-feeding colostrum calves was 1.7 pounds. The other high-feeding group without colostrum? Fully 7.8 pound gap between predicted and actual gain!

Colostrum makes a difference

Equally important for the economics of calf raising are the feed conversion rates for these four feeding groups. Note the huge difference between similar feeding groups depending



on whether they did or did not receive colostrum.

The research group speculated that these differences were due to "bioactive and growth-promoting substances" in colostrum. On-farm practice does not depend on knowing the composition of these substances. What really counts is getting the colostrum into the calves. Feed plenty of clean, high quality colostrum as soon as possible after a calf is born. Regularly check colostrum to see that it is clean - low coliform counts are especially important. Always feed the highest quality (antibody concentration) colostrum available. Either feed four quarts at the first feeding or that amount in two feedings in the first six hours. In addition, whenever possible, feed fresh colostrum rather than that which has been frozen and thawed.

Reference: Kuhne, S. and Others, "Growth performance, metabolic and endocrine traits, and absorptive capacity in neonatal calves fed either colostrum or milk replacer at two levels." *Journal of Animal Science* 78:609-620.

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