CALVING EASE

April 2001

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ACCELERATED GROWTH: AN ELUSIVE GOAL

Accelerated Growth Defined

What does a dairy replacement heifer look like in an accelerated growth program? First, she is alive and healthy. Second, when compared to heifers not in this kind of program she has grown taller than they have. Accelerated heifers probably are somewhat leaner, also. Third, she has gained more weight than her non-accelerated counterparts. Note here that the comparisons between the two feeding programs are based on growth – how much did the heifers increase in height and weight.

Why is Accelerated Growth an Elusive Goal?

Accelerated growth programs sound quite simple: feed more. If it's really that simple, why do results seem to elude us? Why do the desired results slip through our fingers? We buy the "right" milk replacer and we get organized to feed the "right" amounts. We take weights at birth and again a weaning. Results show gains similar to those when we were feeding "ordinary" milk replacer at "ordinary" rates. If we had growth data on height, we would probably see a similar lack of response.

What's happening? **First.** New skills are needed when changing to an accelerated feeding program. [These are described at length in the September, October, and November 1999 issues of Calving Ease.] For example, when calves are fed at near-maintenance levels (that is, two quarts of 20-20 milk replacer twice daily regardless of age) they are always very hungry. That's true of even quite young calves. Therefore we think that any calf that doesn't charge the milk bottle or bucket at feeding time must be sick. In contrast, when calves are fed at near-satiation levels (that is, accelerated growth milk replacer mixed at higher than normal concentration and fed at a rate as close to refusal level as possible) they often appear to feel "Ho-Hum" at their next feeding. Now how do we interpret the lack of ravenous appetite? Is she sick or just still a little full

from the last feeding? Similar new interpretive skills are needed in the areas of diagnosing digestive upsets, diarrhea (scours), starter grain feeding, and weaning. **Calf care persons have to learn new skills for observing and interpreting calf behavior.**

Second. We have to set up workable ways to monitor calf care routines. At Noblehurst Farms we rearranged work routines to allow for blood collection the morning after calves arrived at the calf-care facility. This permitted us to monitor colostrum management and the passive transfer process. Also, working with the herd veterinarian we established a treatment protocol for calves with extremely low blood antibody levels.

Another critical routine is the preparation of milk replacer. Accelerated growth milk replacers seem to be relatively fragile. That is, the instantized forms need to be mixed at the correct temperature and not over-mixed or agitated. Persons mixing the milk replacer need to carry a rapid-read thermometer. And, use it regularly. Mixing at 160°F and then cooling this mix to feeding temperature won't work! Testing with one's finger and feeding at 80°F won't work either.

Other significant calf care routines are milk feeding, starter grain feeding, water feeding, and observing calf behavior for signs of illness. **Calf care managers have to monitor calf care routines to be sure that the care is given correctly at the right time all the time.**

Third. We have to search for limiting conditions. Adding more nutrients to a calf's ration will not result in faster growth if one or more other conditions are acting to limit growth. For example, have we evaluated our "free-choice" water feeding program? Do calves run out of water? When? Which calves? Or, is water quality suppressing consumption? Or, have we evaluated the particle quality of our starter grain? Do half or more of the pellets containing the high protein feed and coccidiostat break up during the delivery process and end up uneaten? Is feeding equipment serving as a source of infection? Perhaps our sanitation routines are permitting bacterial growth on equipment between feedings? Are calves wet, exposed to drafts and ammonia fumes from dirty bedding? **Calf care managers have to look at the entire calf growth environment. Which factor is holding calves back from their genetic potential for growth?**

CALF FEEDERS TIP: Remember that vaccination does not automatically equal immunity. Try to wait at least 24 hours after a stress event before vaccinating. This will improve the calves' response rate to the vaccine. For example, wait a day after moving calves to vaccinate them. Or, even better, try a Thursday-Tuesday routine: dehorn on Thursday and vaccinate on Tuesday.

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