Weaning Stress in Healthy Calves

Everyone knows that too much stress is bad. Over-stressed calves get sick; usually with pneumonia. But, knowing about stress and minimizing it are two different things. This letter describes experiences Sam had during Fall, 1997, with a group of one hundred heifers.

Reducing Pre-weaning Stresses

This group of heifers were born between August 1 and October 15, 1997. All of them were weighed weekly through eight weeks of age. All health events were recorded (two cases of pneumonia treated and three calves died). One objective for this group of heifers was to reduce their pre-weaning stresses. First, we tried to minimize environmental pathogens. Fiberglass hutchs were scrubbed and sanitized. The hutch site was scraped clean and recovered with fresh crushed stone. Each calf was bedded initially with a bale of wood shavings.

Second, the hutchs were placed so that there was no direct, nose-to-nose contact between calves. Thus, we tried to reduce passing pathogens from calf-to-calf by direct contact. Unfortunately, since these are tether-style hutchs, the potential for carrying pathogens from hutch-to-hutch on our boots was still present.

Third, in addition to regular two-time-daily milk feeding, fresh water was available to all the calves from birth through leaving the hutch. It was a big challenge not to get discouraged feeding water to the calves under three weeks. On any given day most of them drank only a little water. But, a few consumed one or two quarts and since we couldn't predict which ones would be the "drinkers," we had to offer water to all of them. The other challenge on warm days was to provide enough water for the oldest calves with some of them willing to drink twenty quarts daily.

Finally, we deliberately spread out our vaccinations and weaning. We gave vaccines during weeks five and seven and weaned during week six.

Weaning Stress

On paper balancing starter intake with weaning looks simple. You just wait until she gets her rumen going and is eating enough grain to meet her nutritional needs; then, stop feeding milk.
Presto, a weaned calf! No fuss, no stress. Unfortunately, our calves can't read these directions. We did work out a way to monitor starter intake fairly closely. Our plan was to wean calves older than thirty-five days when they had eaten two pounds of starter for at least two days in a row. It's clear that we were guessing that "two pounds for two days" meant a competent rumen capable of supporting the heifer. In one way, we were correct. None of the heifers were so stressed at weaning that they became ill with pneumonia.

BUT, our growth rate suffered (see figure below). Our average age at weaning actually was forty-six days (our goal was forty-two). Note in the figure the drop in average daily gain at the seventh week. The seventh week rate of 1.8 pounds is a full quarter of a pound less than what would have been expected based on weeks six and eight. We read this quarter pound drop in expected daily gain as weaning stress impact. The bottom line? Weaning stress is real. It's nearly unavoidable. It is probably better to plan on it rather than be taken by surprise. And, it can be managed to reduce its consequences (at least our calves didn't get sick).

**Calf Feeder's Tip**

Twins. A bull and heifer combination. Now what - ship or raise the heifer? In a March comment on DAIRY-L, Dr. Ina Dobrinski (Vet.U. Penn) observed that the free-martin rate is higher than ninety percent. So, at best you've only a ten percent chance of being wrong if you sell the heifer. But, if you really want to be sure you can contact the Holstein Association (1-800-952-5200). They will send you a Chromosome Test for Freemartinism kit. After following the directions in the kit (get a blood sample from the calf), you send $45 and the sample to the University of Minnesota Cytogenetics Laboratory (complete address with kit). On the average, at least nine times out of ten you will discover that the heifer is a freemartin (sterile). But, maybe,
just maybe, this one might be okay because she's out of one of your best cows - guess you have
to be an optimist to be a dairy farmer.

If you know of someone that doesn’t currently receive Calving Ease but would like to, tell them to WRITE to Calving Ease, 11047 River Road, Pavilion, NY 14525 or to CALL either 585-591-2660 (Attica Vet Assoc. office) or 585-343-8128 (Offhaus Farms Office) or FAX (585-591-2898) or e-mail sleadley@frontiernet.net or pams91@2ki.net. A limited number of back issues may be accessed on the Internet at www.calfnotes.com and clicking on the link, Calving Ease.