

CALVING EASE

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Growth Rates for Preweaned Calves - Rates from Published Studies

When two or more calf care persons get together they always talk about, "How are the calves doing?" Most of the time this is like talking about the weather. Very general; few specifics. The kind of talking you do to pass the time and remind each other that you are friends. Once in a while the talk gets really serious. Not just, "The calves are looking pretty good." Questions are more specific, "How many pounds did your last batch of weaned calves gain?" and "Are you having lower rates of gain this summer than last winter?"

COMPARING RATES OF GAIN

Both Sam and Pam have for a number of years tracked rates of weight gain for young heifers. We use these numbers to compare one group of heifers with another group on our own farms. Of special interest are times when we have changed one of our rearing practices. Then we can compare a group weaned in Fall, 1996, with another group weaned in Fall, 1997.

But, it's probably a natural thing to wonder how we are doing compared to other heifer raisers. One source of information is the published research literature on calf raising. Not all studies are suitable. Some of the research treatments are not similar to those used by commercial heifer raisers. Other studies do not measure rate of gain.

We reviewed studies published in the Journal of Dairy Science during 1996 and 1997. Six studies reported weight gain information for pre-weaned calves through weaning. All the calves were weighed at least twice. Three of the studies weighed the calves weekly. Their rearing practices were similar to "on-farm" situations - feed colostrum, feed either milk or milk replacer at the recommended rate (eight percent of body weight), free choice grain starter and water.

Rates of weight gain up through weaning

First observation: lots of variation. The lowest rate of gain reported was .7 pounds per day for 42 days. The highest rate was 1.3 pounds per day for 56 days. Several studies reported gains of 1.1 and 1.2 pounds daily gain over the entire preweaning period.

The three studies with weekly weights show how gains differ by age. During the first week the calves lost .1 pounds daily in one study while in the other two they gained about .1 or .15 pounds daily. We have seen this ourselves. The first week lots of calves just hold their own in body condition.

By the third week things had changed. The lowest reported rate was .6 pounds daily. The highest rate was 1.1 pounds. Clearly the calves are starting to pack on the pounds. We see lots of growth both in body condition and in height.

Table 1. Average Daily Gain by Age for Selected Research Projects

Age of Calf (week)	Average daily gain		
	Project #1	Project #2	Project #3
5	1.3	0.9	1.3
6	1.3	1.2	1.5
7	2.0	1.6	2.1
8	1.9	2.0	2.1
Ave. gain all 8 wks.	1.15	0.98	1.2

Note how rapidly the rate of gain increases from week to week. Remember that these are calves that were for the most part gaining less than one pound daily when three weeks old. In contrast to the rapid weight gains during the eighth week, the overall 56 day rates of gain for these three projects shown in the bottom row of Table 1 are very modest. The much lower rates of gain during the first four weeks really drag down the overall averages.

CALF FEEDER'S TIP

Navel dipping. Ho hum, old stuff. Well, even if it's old stuff maybe a reminder will help. Remember that the correct dip is an alcohol solution of iodine. It can be purchased by the gallon. The last gallon we bought was about \$17.00. Even if you slop it on it would be difficult to use up a gallon for less than 75 or 80 calves - that's less than a quarter per calf. Many calf persons say that convenience is the key to dipping all the calves. They advise keeping the dip right where the calves are born. Some keep dip in a pail along with the ear tags and tagger. Others keep dip with the equipment for assisting deliveries. Last word? It's inexpensive and very effective insurance against systemic illness in newborn calves.

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