

# CALVING EASE

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## Growth Rates for Preweaned Calves - Weights from Two Farms

In the August, 1998, issue of Calving Ease we summarized rates of gain for preweaned heifers from published research studies. At eight weeks of age the rates from three studies were 1.15, .98 and 1.2 pounds per day. That rate was figured by subtracting birth weight from 56 day weight and dividing by 56 days. In September, 1998, we compared rates of growth for preweaned heifers by age using weights from a study done at Noblehurst in 1997. During the first week of life these 100 heifers averaged only one-half pound gain per day compared to over two pounds daily during their eighth week. We also saw that at any given age, rates of gain vary a great deal (for example, in this 100 calf study, during their sixth week 36 percent gained one and one-half pounds daily or less while 40 percent gained over two pounds daily).

### Growth Rates on Two Farms for 56 Days

At Offhaus Farms in 1997 Pam taped 375 heifer calves both at birth and approximately 60 days of age. The overall rate of gain figured for 60 days was 1.8 pounds daily. This rate varied considerably from a low of 1.3 pounds for a group weaned the last week in August to a high of 2.2 pounds for a group weaned the third week of February. The only eight-week gain data Sam has for Noblehurst Farms were from 100 calves born after August 1, 1997. They averaged 1.7 pounds gain per day at 56 days (these were weighed at birth and again at 56 days).

### Difference in Feeding Rates

These weight gains are higher than those summarized in the August Calving Ease. The university studies all fed milk or milk replacer at eight percent of body weight (for example, 100 pound calf gets 8 pounds of milk or about 16 ounces of dry matter from milk daily). In one study the calves were weighed weekly and feeding amounts adjusted weekly to maintain the eight percent feeding rate. Pam and Sam fed at higher rates. Pam fed four quarts daily of waste milk (we estimated about 15 percent dry matter) giving the calves nearly 20 ounces of dry matter daily from milk. Sam fed milk replacer at a rate to

provide 20 ounces of dry matter daily. These two farms fed milk or milk replacer at a rate approximately 25 percent higher than the 16 ounces fed in the summarized studies.

When the 100 calves from Noblehurst were six months of age they were taped again. A comparison of birth and six-month weights showed that the life-time rate of gains were stable at approximately one and three-quarter pounds daily for the 88 calves for which complete data were collected.

### **Not Easy to Fit in Taping Calves**

We find it difficult to tape calves on a fixed schedule. It's easiest when taping is part of some calf management task. Birth weights are not too hard because we lump them in with tagging, docking and injections. The later taping is tougher. If they can be lumped in with vaccinations we find it helpful. We usually hang around for a while after giving vaccinations to watch for reactions. We use this time as an opportunity to tape some calves.

### **More Recent Experience in 1998 - Change in Feeding Program**

During Fall, 1997, Sam was looking at his pneumonia treatment rates in the hutches for the first calendar quarters of 1992 through 1997. Treatment rates were well over 25 percent every year. He decided to change his milk feeding program in 1998. Free choice water and starter grain were already offered to all calves from day 1 in the hutch. He was feeding 20 ounces of milk replacer powder daily. He changed to offering 30 ounces daily. Most calves by ten days were eating all 30 ounces. Sam has been taping calves at birth and again at about 35 days since 1996. When he changed feeding programs in January, 1998, the previous two years weights provided a basis for comparison.

### **More Recent Experience in 1998 - Lower Treatment Rate**

Calves measured during the four-month period, February through May, in 1996 gained 40 pounds in 35 days (1.1# ave. daily gain). In the same period in 1997 they averaged 37 pounds in 35 days (1# ave. daily gain). The 1998 average for these months was 35 percent higher, 52 pounds in 35 days (1.5# ave. daily gain). The rate of calves treated for respiratory illness decreased to around 5 percent from over 25 percent consistently over the past six years. Naturally the proof of the pudding in the lower respiratory treatment rate will be to see if it is also lower in 1999 and 2000. One year's experience certainly doesn't establish a "gold standard" of evidence showing that a feeding program causes a change in treatment rate. (Editor's note: The treatment rates in 1999 and 2000 were under 5 percent also.)

### **Average Daily Gain at 6 Months**

At the time this letter is written nearly 100 of these "February-May" heifers have reached six months of age when they were retaped. The ones that were old enough by the end of August averaged an even two pounds daily gain from birth to 180 days. This may be

compared with rates in 1996-97 varying from 1.5 to 1.9 pounds per day (average = 1.7) at the same age.

### **Bottom Line?**

If your mortality rate is in the double digits, focus your attention on keeping them alive. Once you have this rate down under five percent, maybe it's time to begin focusing attention on how well the calves are growing. Is the treatment rate for respiratory illness under control (10 percent or less in the pens or hutches)? Are the preweaned calves growing well enough to support the goals of earlier calving?

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