

## **STARTER GRAIN INTAKE INFLUENCED BY VOLUME OF MILK FEEDING**

How should a calf raiser balance milk replacer and starter grain feeding?

On one hand, we want to feed adequate amounts of milk or milk replacer long enough to be sure calves mature rapidly. That way they stay healthy.

On the other hand, we don't want to feed too much milk replacer too long to unnecessarily delay starter grain intake and rumen development. That way they stay healthy.

### **Living on milk replacer until rumen develops**

The balancing act for any calf raiser is to seek the right ration for calves at different stages of development.

Until the lining of the rumen has developed enough to absorb nutrients from grain fermentation, the calf has to live on milk or milk replacer. That rumen growth process takes a minimum of about three weeks. Remember, those three weeks only start after a heifer begins eating a handful of grain daily and has access to water.

### **Lots of natural variation among calves**

Grain intake measurements available from a NY dairy suggest we may expect to start this three-week countdown at different times depending on milk replacer intake.

Calves fed about 20 ounces (570 grams) of milk replacer powder daily probably will begin this regular starter grain intake around fourteen days.

But, there is a lot of variation around this average. Some of these calves were observed to start eating grain regularly at one week of age. Others on the same milk ration did not begin regular intake until they were nearly three weeks old.

### **Higher rates of milk replacer feeding delay grain intake**

Calves with higher rates of milk replacer feeding can be expected to start regular grain intake later.

Our observations suggest that at 30 ounces (850 grams) of milk replacer powder, initial daily significant grain intake averaged eighteen days.

At 46 ounces (1.3 kg) of milk replacer powder daily, this average date for initial regular starter grain intake was delayed until twenty-six days.

Remember, however, that a great deal of variation was present in all feeding groups. A few calves begin much earlier and some start much later than the average.

### **No substitute for daily observation of calves**

Averages give us an idea of what to expect. Maybe they suggest what is “normal.” That’s the animal science side of management.

But, there is no substitute for good animal husbandry – one must observe calves individually. When weaning a heifer, it’s important to know that she, as an individual animal, has been regularly eating some grain for at least three weeks.

Then, we are fairly certain that she has the rumen competence to make the switch to dry feeds without excessive stress. It is important to combine solid animal science with good animal husbandry to achieve superior calf management.

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