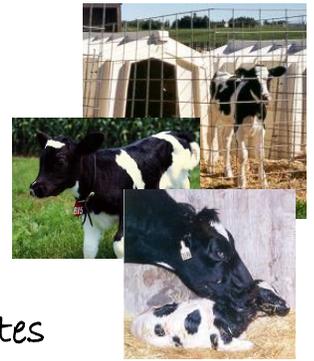


Calving Ease

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Feeding Space for Heifers

- **Why is the amount of feeder space an issue?**
- **What about transition heifers coming out of hutches or individual pens?**
- **Space issues for heifers between 4 and 8 months?**
- **Space issues for breeding age and pregnant heifers?**

Overstocking on dairy farms happens – especially for heifers. It is not easy to find the correct balance between space and heifer numbers. Many dairies have more heifers than they have eating space for these dairy replacements.

Why is the amount of feeder space an issue?

Too little feeding space at certain ages may result in:

- High sickness and treatment rates
- Slow growth rates
- Excessive variation in size among heifers the same age

The dangerous characteristic of all three undesirable outcomes is that they are easily overlooked in the day-to-day business of keeping the replacement enterprise running. Often it is not until we are sorting heifers for the breeding pen that it becomes obvious that there are way too many heifers not ready to breed at our farm's target age.

What about transition calves?

Our goals at this time are (1) a smooth housing transition, (2) minimal illness and (3) uninterrupted growth.

The stress coming from a housing change is unavoidable. One way to lower the stress level is to keep feeding the same ration in the new housing as the calves had previously. I used the last week in hutches to make the transition to a “grower” grain plus a large handful of hay twice a day in the grain bucket. Then in the group pen my calves had free-choice grain in feeders allowing about 1.5 foot per calf. I top-dressed the grain feeder with enough hay once a day for the calves to eat hay for about 30 minutes.

Other folks prefer to carry the calf starter grain into the transition pens for 7 to 10 days. If no hay has been fed before the housing change I recommend limiting hay intake in the new pens for the first 10 to 14 days until rumen bugs catch up to the ration change.

It is my observation that when heifers have just moved into group housing that less than 18 inches of feeder space often leads to suppressed grain intake. In order to avoid this problem some farms add an

extra “in-pen” feeder for the initial few weeks to increase feeder space per heifer to nearly 2 feet. I regret I did not think of this idea with my own heifers. This extra access seems to get calves past the “newness” factor and helps maintain feed intake.

Feeder space issues among heifers between 4 and 8 months

At 4 to 8 months replacement heifers seem to do well in facilities with a wide variation in feeding space per heifer (Longenbach and Others). If feed is restricted to achieve about 1.8 pounds per day gain, heifers in this age group apparently gain uniformly within the group even when all the heifers cannot eat at the same time. This is probably partly due to the weakness of dominant: subordinate relationships at this age.

If there is free choice TMR there will be a tendency for some lack of uniformity of growth; that is, easily observable differences between the heifers with the highest and lowest rates of gain.

If there are larger numbers in a pen even with a free choice TMR when the space is restricted so that only 80 percent or fewer of the heifers can eat at one time it is likely that there will be negative eating trends. That is, under-eating by the subordinate heifers and their access limited to TMR that has been picked over by the more dominant animals.

Variation in growth rates among heifers in a pen with limitations in feeder space will be greater than if all the heifers had access to fresh TMR at the same time. Problems in heifer health do not seem to be related to moderate limitations in feeder space among heifers at this age.

Feeder space issues for breeding age and pregnant heifers

As heifer size approaches that of a mature cow aggressive behaviors are much higher when all the heifers cannot eat at once when fresh feed is offered than if all can eat at once. In one study, displacements from the feeder were observed. With limited space versus enough space for all cows to eat, displacements were 43 percent higher in the 90 minutes following feeding (DeVries and Others).

Also, with a flat feed alley, the frequency with which feed is pushed up may be a factor. Dominant heifers may take their meals immediately after feed is pushed up. Subordinate ones may have to wait to eat until the feed is mostly out of reach again. When space limits access to feed by all animals when fresh feed is delivered, the subordinate heifers may end up eating mostly picked over TMR.

In summary, where feeder space is limited for breeding age and pregnant animals the dominant heifers apparently overeat the best of the TMR. The subordinate heifers tend to under-eat the picked over TMR.

References: Longenbach, J. I., A. J. Heinrichs, and R. E. Graves, 1999. “Feed bunk length requirements for Holstein dairy heifers.” [Journal of Dairy Science](#) 82:99-108. DeVries, T. J., M. A. G. von Keyserlingk, and D. M. Weary, 2004. “Effect of feeding space on the inter-cow distance, aggression, and feeding behavior of free-stall housed lactating dairy cows.” [Journal of Dairy Science](#) 87:1432-1438.

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Remember to search for “Calves with Sam” blog for profit tips for calf rearing.