

Space and Time for Transition Cows

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The best way to avoid treating cows is by getting them off to a good start after calving. There is a lot of focus on dry cow pen management, but fresh pen management is just as important. The underlying concept is that stress is detrimental to cow health. Stress is commonly caused by overcrowding and pen moves, and even more specifically, the timing of pen moves.

Dry cows can be split into far-off and close-up groups, or there is a trend to manage them as one larger group. In either case the requirements are similar: provide enough space and provide constant access to fresh feed. Far-offs kept in freestalls need one USABLE stall per cow and 24"/hd bunk space. When are you drying cows off? Is it in time to meet your goals? For example, if you dry off cows once a week with the goal of a 60 day dry period, you need to dry off the cows at 60-66 days due, not the cows 54-60 days due.

Close-up cows are most commonly on a pack, and the more space the better. Current research is indicating that 100-150 square feet of pack per cow, and even more if possible, is required. This space is defined as USABLE pack: when calculating, take into account cut off corners, water bowl cut-outs, and do not include any alleyways. Provide 30" bunk space per head and have fresh feed readily accessible at all times. Close-up cows need to be in this pen by 21 days due and heifers by 28 days due. In fact, if you can feasibly separate the heifers and cows here, even more social stress is removed. Check the timing of your pen moves, as a week too late can have serious repercussions on transition. Also keep in mind that the variation around calving time is +/- 10 days from the due date, and cows with twins will often calve early. So a cow moved to the close-up group at 14 days before calving can calve a week early and not have enough time to adapt before being moved again to a fresh cow group.

One-group dry cow management eliminates a pen move, so there is inherently lower social stress across the dry period. Also, if a cow calves early, it's not as big of a deal because she wasn't moved recently. It is important to make these pens quite large, at least 150 sq ft usable pack/hd and 30" bunk/hd, to deal with the seasonal calving fluctuations. Always have multiple water sources and continuous access to fresh feed.

How much space do you need? There are some great online tools available for calculating your transition facility needs, namely the Dairyland Initiative website. The general rule of thumb is to accommodate 140% of the average calving rate. If you only calculate for the average, you will be overcrowded half the time! As a quick example, a 200-cow dairy with a 60d dry period needs to have facilities that will accommodate 40 dry cows at any one time (21 far off and 19 close-up/springers). Of course, these numbers are based on a stable herd size, so if you are (slowly) expanding then you need to take that into account.

Fresh cows are moved into a fresh group or the general population. Keep in mind that stress at this stage will undo your entire transition cow program. So NEVER mix fresh cows with sick/lame/treated cows. Not only does this expose fragile fresh cows to illnesses, but it greatly increases the chance of overcrowding the fresh cows. Even if it's only for a few days, don't do it! Whether using a pack or stalls, keep the numbers down: +100sq ft pack/hd or one usable stall per cow; ideally 30" bunk space/hd here as well; and two water sources. The duration of stay in the

fresh pen ranges, but is usually around 3-21 days. Any chance you have to separate cows and 1st lactation heifers at this point is beneficial. If fresh cows go directly into the general population, separating by lactation is even more important. Still, kicking fresh cows into the group early means the group crowding should not exceed 100%.

Available space, and timing and number of pen moves have a huge impact on transition cow success. To see if your facilities are adequate, ask yourself:

- What kinds of facilities do you have available? Physically measure the usable pack space for the dry cows and calculate the number of calvings that space needs to accommodate (140% of average).
- How many pen moves does a cow make between drying off and joining the main group?
- When does she make those pen moves in relation to her due date? To her fresh date?
- Who is in each group? Are cows and heifers mixed? Are sick/lame/treated cows in with fresh cows?

Use your dairy consulting team to help design a solution to your transition cow problems and avoid treating fresh cow diseases.