

SOCIAL DISRUPTION

by Dr Huw McConochie

Reducing inflammation in the 30 days both pre- and post-calving can play a big role in improving lactation performance and lifetime productivity. In this series, we look at six major areas where a management focus will reduce the risk of excessive inflammation during the transition period.

WHY IS INFLAMMATION THE HIDDEN MILK THIEF?

Inflammation is the body's response to injury. It sends a signal to the immune system to heal and repair tissues, as well as prevent infections. Glucose is a crucial energy source for all functions that take place in the cow. In early lactation, any inflammation causes glucose to be diverted from production as the cow will always look after herself first. The worse the inflammation, the more production will be affected.

Cows respond to a negative energy supply by increasing the mobilisation of body reserves, a process which activates immune cells. Extreme negative energy balance is associated with a greater immune response, diverting even more glucose from production. While a low level of inflammation is a normal part of transition, the key is to keep the incidence as low as possible to free glucose for production.

A key objective of the transition period is to maintain dry matter intake (DMI) and reduce stress, both of which can be affected by group changes. Re-grouping cows creates social unrest or turmoil within a group because the cows have to re-establish the social hierarchy. When new cows are brought into a pen, no matter how many, it takes two to three days for the social hierarchy to be restored.



Reducing the frequency with which cows are introduced into a new group reduces the social turmoil. The closer to calving any group change is introduced, the greater the negative effect on DMI and stress. The perfect scenario is to have four straw-bedded yards, each large enough to accommodate one week's worth of calvings. This is referred to as an all-in all-out system. Each group remains unchanged from 21 days pre-calving to calving, and the cows calve in the pen.

REDUCE SOCIAL DISRUPTION

1. Cows should remain in the same group for between 17 and 2 days prior to calving.
2. In smaller herds, where it is not possible to operate an all-in all-out system, dry off cows weekly and move between dry groups once a week.
3. Having a single dry group works just fine.
4. Where possible, group heifers separately.
5. Ideally, avoid single animal movements. Moving three to five cows per move reduces stress.

MINIMISE THE STRESS OF GROUP CHANGES

- providing adequate bunk space;
- using headlocks;
- not overstocking;
- avoiding dead ends in cubicle sheds; and
- making sure that different groups of cows can see each other (for example, close-ups can be housed next to each other or on opposite sides of the feed passage).

DID YOU KNOW?

Mature cows are more affected by the introduction of heifers than the heifers themselves and mature cows are more susceptible to transition diseases. [mpo](#)



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