

DAIRY SOLUTIONS

5 keys to healthy, productive fresh cows

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Currently, one of the biggest opportunities for increased performance on our dairy farms centers around our fresh cow program. Fresh cows have a great opportunity for production potential, but if we do not set them up for success properly, they will not be able to achieve an optimal level of production. The fresh cow will experience various changes that can stress her immune system, which, in turn, puts her at risk for various metabolic disorders. Issues that arise during the fresh period can affect milk production during both the current lactation and in future lactations as well. Management strategies that include careful attention to detail, coupled with adequate nutrition can help get the fresh cow off to a running start. Outlined below are five strategies that will help guarantee both a successful fresh cow transition and an increase to your herd's overall performance level.

1. Develop dry, close-up and fresh cow feeding strategies, and monitor dry matter intake.

Dry and close-up rations that include optimal levels of vitamins and trace minerals and are balanced for DCAD, energy and metabolizable protein (MP) will give fresh cows the start that they need. Ensure that your fresh cow diet contains high-quality forages and allows cows to slowly make the adjustment from the close-up ration to the high group ration. In a matter of weeks, the ration changes significantly, and it takes time for rumen microbes to adjust to these changes. As a rule of thumb, keep ration changes in nutrients such as starch, NDF and ADF between the close-up and fresh cow ration to 10% or less.

Monitor the dry matter intake of fresh cows. To promote dry matter intake, fresh cows should always have easily accessible feed. It is important to keep in mind that the dry matter intake of mature cows typically increases more quickly than the dry matter intake of first-lactation cows. If dry matter intake is lagging, the close-up ration, heifer program, and health status of those individual cows should be investigated. Forage quality should also be reviewed, as low-quality forages can result in high levels of undigestible NDF, which limits how much the cow can eat, slowing the rate of passage and reducing dry matter intake during this critical time.

2. Provide clean, comfortable housing and fresh water.

Entering a new pen and environment after calving can significantly elevate the stress levels of fresh cows. To promote cow comfort, providing the fresh cow with a clean, comfortable environment is a must. Stalls should be comfortable, regularly cleaned and deeply bedded to promote lying and rumination behavior. A bedded pack is another housing option that provides adequate cow comfort. It is also crucial to implement strategies for managing heat stress. Heat stress management should start in the dry period to mitigate any potential negative effects, including reduced calf birth weight, poor immune status for both cow and calf, and decreased feed efficiency and dry matter intake. These strategies for mitigating heat stress should continue into the fresh pen to keep the cows comfortable and maintain dry matter intake.

The importance of providing fresh, clean water at all times during this period should not be underestimated. The water source should be regularly checked for bedding and other debris and cleaned on a regular basis. Water should also be tested regularly for quality. Providing a minimum of 3.5 linear inches of accessible water trough space per cow is recommended, as is providing multiple access points to the water to minimize the occurrence of boss cow issues.

3. Manage social interaction and stocking density.

Since fresh cows are at risk of various metabolic issues and their immune status can be easily compromised, it is important to manage social interaction within the fresh cow pen. If possible, maintain a separate pen for fresh cows only and control the stocking density. Keeping the stocking density at 90% of capacity or less and providing adequate bunk space of 30 inches per cow (for Holsteins) gives fresh cows opportunities for adequate lying time and reduces competition at the bunk. If space constraints allow, fresh heifers should be housed in a separate pen from fresh cows to allow the heifers to adjust without having to deal with the stress of co-mingling with dominant cows. A separate pen also allows for closer monitoring, the importance of which is explained in the next tip.

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4. Implement cow and herd-level monitoring strategies and protocols.

One question that gets quite a bit of discussion is: When should cows move from the fresh pen to the next group? Oftentimes, labor and facility constraints influence when pen moves will take place. Work with your farm's team of trusted professionals to develop a fresh cow monitoring protocol that is specifically targeted to the needs of your farm. This assessment should be based on the progress of individual cows. Make sure that all employees working with fresh cows are properly trained and understand the importance of fresh cow health. At a minimum, fresh cows should be checked at least twice per day for no less than 10 days. Always observe both the front and back of the cow during an evaluation. A list of things to consider when checking fresh cows should include:

- **Body temperature:** An elevated body temperature can be one of the first signs of an underlying infection. It is important to note the environmental conditions when taking temperatures, as heat stress can cause body temperature readings to be one or more degrees greater than what is typically considered normal.
- **Uterine discharge:** It is normal for cows to have discharge for up to two weeks post-calving. Foul-smelling and/or abnormally colored discharge, however, is symptomatic of an infection or retained placenta. Any visible placenta retained after 12 hours is considered "retained placenta" and should be promptly addressed.
- **Manure consistency:** Check the consistency, appearance and odor of the manure. Manure with a fluid consistency that shows evidence of blood and/or a foul smell can indicate the presence of a disease and/or a rumen that is not working well.
- **Appetite:** Depending on how the facility is set up, cow appetite can sometimes be more difficult to assess. Cows that are not seen eating and do not display adequate rumen fill should be physically examined, as they could be experiencing an illness.
- **Physical appearance:** Trained personnel should assess if the cow looks healthy or abnormal. The eyes and ears of the cow should be checked. Sunken eyes could be the result of dehydration, a displaced abomasum (DA), or an underlying infection. The ears should not be droopy or cold as that could be the sign of illness or hypocalcemia, respectively. Also, observe the respiration rate and record if the cow is coughing, as this could be an indication of pneumonia.
- **Milk yield/udder fill:** Udder fill and milk yield are an indication how well the cow has been eating. An udder that is not full is typically a sign of a metabolic issue, or illness, such as metritis, ketosis, milk fever, DA, or pneumonia. These issues can depress dry matter intake and should be treated promptly. Excessive or lingering edema should also be recorded.
- **Rumen fill/rumination:** Farms with rumination collars should monitor rumination minutes. Fresh cows should have a minimum of 450 rumination minutes per day at five to seven days post-calving. For farms without rumination collars, check for rumen fill and observe whether or not the cows are spending time ruminating.

Develop a record sheet to record observations for each cow in the fresh pen. Several other tests can also be performed cow-side to determine the presence of mastitis, ketosis, and/or subclinical milk fever. These tests can be implemented based on the farm's specific goals and needs. Pen changes can be stressful and should be minimized. Move the fresh cow to the next group when the tests of each of these criteria show normal results.

5. Use additives strategically.

Work with your nutritionist to add ration ingredients and additives where they fit into the ration. Some additives that can be beneficial for fresh cows include:

- **Yeast:** Can improve dry matter intake and rumen function.
- **Amino acids:** Methionine, especially, can improve milk production and dry matter intake and boost immunity by decreasing inflammation and oxidative stress.
- **Monensin:** Can improve energy metabolism.
- **Rumen-protected choline:** Helps the liver export fat and, subsequently, helps to prevent fatty liver and ketosis.
- **Chromium:** Can improve dry matter intake and immune function and supports energy metabolism.
- **B-vitamins:** Involved in energy balance and can improve health and production.
- **Mycotoxin binder:** Mycotoxins are always a concern because of their negative effects on rumen and immune function. Arguably, mycotoxin binders should be included in all close-up and fresh cow rations.

Fresh cows are at risk for various metabolic issues, but through careful management and by providing optimal nutrition, they can get off to a great start to their lactation. Contact your [local Hubbard Feeds representative](#) for further guidance and assistance with monitoring your fresh cow program.

References:

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