

Feeding Transition Cows...

The transition period for a dairy cow runs from two weeks prior to calving through two to four weeks after calving. Dairies that have not implemented sound feeding and management programs during the transition period often experience:

- Low peak milk yields
- Excessive loss of body condition
- Poor fertility
- Metabolic disorders [i.e. fatty liver, ketosis]
- Digestive disorders [i.e. ruminal acidosis, displaced abomasum (DA)]
- High veterinary costs
- High involuntary cull rates

Nutrition is a key component of a good transition cow program. The role of nutrition in preventing metabolic disorders is reviewed in this article. Feeding guidelines will also be presented.

Body Condition at Calving

Cows should freshen with a condition score of 3.0-3.5. Over-conditioned cows, those that freshen with a condition score of 3.75+ may undergo greater intake depression around the time of calving and don't have good appetites during the first few weeks after calving. Because of this, they are more prone to fatty liver, ketosis, DAs, ruminal acidosis, rapid and excessive loss of body condition, and poor fertility.

Thin cows (those that freshen with a condition score of less than 3) simply don't have enough energy coming from back fat mobilization to support high levels of milk production. There is normally enough energy contributed from back fat mobilization in early lactation to support 1,000 to 1,500 lb of milk production.

Proper conditioning needs to be done primarily before you dry the cow off. Cows should not lose body condition during the dry period. The body condition that can be put on during a 45 to 60 day dry period is only about a half point (on condition scoring). Ideally, cows should have a body condition score of 3.0 to 3.5 at dry off.

Nutrition Prior to Calving

A strategy that works for some dairies is to lead feed concentrates for three weeks prior to calving. Feeding starchy grain prior to calving may:

- Enhance dry matter and energy intake during the period of intake depression
- Help adapt the rumen microbes in preparation for the early postpartum diet
- Increase the capacity of the rumen papillae for volatile fatty acid absorption
- Increase ruminal propionate production

This helps prevent loss of body condition and fatty liver problems, ketosis, DAs, and ruminal acidosis. Intake of total concentrates, which include grain, protein supplement and mineral/vitamin supplements, should generally be limited to a maximum of 9-10 lb of dry matter (DM)/cow/day. The non-fiber carbohydrate (NFC) content of this diet should be 34-38% (DM basis). Net energy (NEI) concentration of the total

diet should be midway between the dry cow and milking cow diets or about 0.7 Mcal/lb of dry matter. This provides for a step-up energy feeding strategy during the transition period. This concentrate feeding guideline keeps at least 60-65% of the diet dry matter as forage to help prevent DAs caused by low rumen fill. Feeding a total mixed ration (TMR) to help regulate the forage-to-concentrate ratio is recommended. The forage should be coarsely chopped and feeding 5 lb/cow/day of long or coarsely processed hay may aid this group. It is also typically recommended that corn silage be limited to less than 45% of the forage dry matter in this diet.

The crude protein (CP) content of this diet should be 13-15% (DM basis), with 35-40% of the CP as "bypass" protein. Sub-clinical and clinical milk fevers can be prevented by controlling the potassium content of this diet and lowering its cation-anion difference (DCAD), potentially including the use of anionic salts. Preventing sub-clinical milk fever helps decrease other calving-related disorders (i.e. retained placenta, ketosis, DA) and enhances early postpartum dry matter and energy intakes.

Maximizing Dry Matter Intake in Early Lactation

Increasing dry matter intake during the first few weeks after calving increases energy intake during this period, helping to minimize the degree and duration of any negative energy balance. Here are some tips for improving dry matter intakes and managing transition cows for maximum results:

- Feed good quality forages; RFV 150
- Feed palatable forages and concentrates
- Do not feed to an empty bunk
- Feed fresh cows for 5-10% refusal
- Push up feed frequently to stimulate appetites
- Feed the TMR or ensiled forages frequently enough to keep it cool in the bunk
- Provide adequate bunk space (2-2.5 ft/cow)
- Keep barns well ventilated & cows comfortable
- Keep water tanks clean; allow cows easy access to them

There are also numerous feed additives targeted to transition cows by nutritionists for preventing metabolic disorders and to improve lactation performance. Ensuring your transition cows have their nutritional needs met during the transition period can have a critical impact on how they perform through the next lactation cycle. For additional information ask me! I'll be happy to work with you to ensure your transition cow program is helping to maximize productivity and profitability.

(edited from an article by Randy Shaver, UW-Madison)

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Taking time to observe your cows makes a difference!

How much time do you spend just "watching your cows"? It is important to observe your cows on a regular basis. Here are a couple of things to consider... and take time to note your observations.

1. Two hours before milking, are less than 20% of the cows standing in stalls?

This is a reflection of cow comfort. A comfortable cow will spend at least 12 hours a day resting. The longer they stand the greater chance of cows developing lameness problems. Comfort can improve production!

2. When walking through the milking herd without disturbing the cows, are 50 to 70% of the cows chewing their cuds?

Healthy cows chew their cud. This acts as a natural buffer to feeds and can help increase dry matter intake, while helping to prevent lameness, DAs, etc.

3. Just before feeding your cows, take a few minutes to look in the feedbunk and see if it still contains quality feed - not just cobs or long-stemmed fiber. When you feed the cows, are there cows waiting for their turn to get to the feedbunk for something to eat?

It is important to keep feed in front of the cows all the time. More feed intake often means more milk. Also, ensure there is sufficient space for the cows to eat.

4. Are the water troughs clean, easily accessible after milking, and do they provide an adequate supply of water for all cows to drink?

Fresh, clean water encourages intakes and aids feed digestion. Furthermore, milk is made up of 87% water. Make sure there are sufficient water tanks for all your cows!



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taking time to observe your cows!
feeding transition cows...
GET MILK! to start them right.

Check it out.

