

PROFIT POINTS

Why you should consider feeding a high forage diet to dairy cows?

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Forages are the foundation of the dairy ration, and the quality and quantity of forages fed to the cow is directly related to rumen health, milk production, purchased feed costs, and profitability. With proper management, dairy producers can feed 60% of the ration dry matter in the form of high quality forages. Feeding a high forage diet can provide numerous benefits to dairy herds, especially for those high-performance healthy cows housed in comfortable facilities. How much forage can we feed depends on forage quality (NDF level), forage digestibility (NDF digestibility), particle size, passage rate, palatability, and inventory. As a general guideline, total NDF intake should be 1.1-1.2% of the cow's body weight, and that the NDF from forages should be a minimum of 75% of the total NDF intake.

What are the potential benefits of feeding a high forage diet?

1. Better rumen health and efficiency
2. Less acidosis, hoof, and metabolic problems
3. Improved transition cow health
4. Lower vet bills
5. Decreased cull rates
6. Increased feed intake and milk and milk component yields
7. Less grain and less purchased feed cost
8. Improved income over feed cost

What are the challenges of feeding a higher forage diet?

1. Consistent quality forages

As we feed more forage, less grain is needed to balance the diet, and because forages become a greater part of the ration, there is less room for variability. We have to ensure the consistency of forages to optimize intake and milk production. Factors such as forage hybrid, soil fertility, soil drainage, weather, and variations by year can all affect forage quality. In case of suboptimal forage quality, dietary liquid supplements can help improve forage digestion. A recent meta-analysis concluded that when total dietary sugar was between 6.75 to 7.5% DM, cows had the best NDF digestibility, fat-corrected milk yield, and milk efficiency. To optimize forage digestibility, cows should be fed between 1.5 and 2.0 lb. of added sugar, which is equivalent to 4 to 5 lb. of QLF products.

2. Forage inventory

Before implementing higher forage rations, producers would need to calculate forage inventory and possibly adjust cropping and harvesting programs to make sure there is enough forage storage. Producers should also consider their storage capabilities and make sure they can handle the additional tonnages.





3. *Forage analyses*

Frequent forage analysis is needed to monitor forage dry matter and quality (such as NDF digestibility) to adjust ration accordingly and keep the feeding program on target.

4. *Feeding management*

Good feeding management is needed to ensure a consistent supply of a palatable and highly digestible ration to the cow throughout the day. Often times higher quality forages can be allocated to the appropriate animal groups, such as high producing cows.

5. *Maintain effective fiber*

Cows need to be fed forages that have sufficient effective NDF in order to optimize rumen digestion and modulate passage rate. When harvesting, chop at the proper moisture and particle size to ensure the ration contains adequate effective fiber.

What to watch for after switching to a higher forage diet?

When making ration changes, it is important to increase forage level gradually over 10 to 14 days, and monitor cows during this period to make sure they are adapting well to the change.

1. *Feed intake*

The increase of DMI may be around 2 to 4 lb./d, with high-producing cows increasing the most. If DMI increases too much or varies a lot from day to day, inadequate effective fiber may be causing the feed to pass through the rumen too quickly.

2. *Cud chewing*

When cows are resting after eating, at least 50% should be ruminating. If the percent is less, effective fiber is likely to be low.

3. *Manure consistency*

A healthy manure pile stacks one to three inches in height, and you may notice loose manure if feed is passing through the rumen too quickly. If piles are flat or are inconsistent from cow to cow, you may need to reduce TMR sorting.

4. *Milk components*

When feeding a higher forage diet, the milk fat content should stay the same or increase slightly. A drop in fat percent may indicate the forage particle size is too fine or lack of effective fiber. Protein content should stay the same or increase slightly.

In summary, feeding higher forage diets can provide dairy herds with many long-term potential benefits, including higher levels of milk components, improved cow health, reduced ration costs, and increased profitability. The key to making this system work is having adequate quantities of consistent and high quality forage available on the farm and good management. To optimize forage fiber digestion, we should use a QLF liquid supplement to increase total sugar in the diet to a minimum of 6.75% and deliver 1.5 to 2 lb. of supplemental sugar. By implementing this strategy, you can feed a high forage diet successfully.

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