The Forage Art in Managing Component Feeding: A Persistent On-Farm Success

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Abstract

This policy-making article establishes the importance of adopting optimal forage choices with adequately effective fibre (e.g., dry coarse legumes and grasses) for the success of managing component feeding of forage and concentrate on modern ruminant farms.

Keywords: Art; Component feeding; Forage; Effective fibre; Ruminant

This article signifies the importance of feeding dry highly physically effective forages for the success of component feeding (CF) vs. total mixed ration (TMR). Recent discoveries have revealed that CF is in no ways inferior to TMR in maintaining healthy and functional rumen and intermediary metabolism of lactating dairy cows [1,2]. Beyond that, prolonged management of CF could be even beneficial economically due to improved energy status and increased milk production in early lactation [3,4]. These findings suggest that high-producing ruminants can be well adjusted to feeding concentrate and forage separately without compromising rumen and animal health should diet components be adopted artistically [5]. Practically notable, maintaining optimal dietary forage portions and not overfeeding starchy grains is a wiser approach than feeding TMR carelessly to helping the animal cope with the increasing milk production during the first few weeks postpartum [6,7].

Sub-acute rumen acidosis (SARA), laminitis and depressed immune function followed by decreased animal performance and longevity characterize mismanagement in feeding strategies [8,9]. The challenges grow when TMRs are merely fed to help stabilize rumen conditions without knowing that in a disturbed fluctuating and acidic rumen environment (augmented by starch overfeeding), forage particles effectiveness in increasing rumen muscular movement, chewing, insalivations and buffering capacity may dramatically decline. As a result, SARA would be elongated and rumen health further diminished. Meanwhile, fibres are not effectively digested and chewing is not adequately activated, thus making TMR a fiasco rather than a solution. Noteworthy, optimizing dietary grain source and cereal processing techniques must be well managed as described elsewhere [10-14].

Therefore, it is highly crucial to ensure that diets contain just enough portions of starch grains and certainly adequate highly effective fibres from sufficiently coarse and dry forage particles. Moderately chopped alfalfa hay or mixtures of dry alfalfa hay and varying grasses offer additional appropriate effective fibre choices when managing CF. Research ought to be devoted to monitoring circadian rhythms of rumen conditions and peripheral modifications at animal, organ, cell and gene levels before more specific local and farm-oriented guidelines on optimum ratios of dietary effective fibre and different starch sources may be formulated.

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Conclusion

The art of feeding optimal forage type and form at optimal length is central to the persistent success of CF management in modern ruminant farming.

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