Heifer Management Blueprints

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Heifers and Feed Bunk Management

Introduction

One simple way to improve feed efficiency in heifers is to employ good bunk management. Feeding heifers to exact levels of intake and using the heifers inherent nature to sort feed as a guide to manage bunks has been demonstrated to improve feed efficiency. Paying proper attention to eating behavior and managing the feed bunk accordingly can increase feed efficiency and decrease feed cost.

Start with a Good Bunk Design

Feed is meant to be consumed by animals. A properly designed feed bunk for heifers should first and foremost minimize feed losses behind the feed bunk. Research data from Michigan State University demonstrated up to 20 percent of feed can be lost to the aft side (behind) the feed bunk. In general, feed losses will be less when heifers are required to place their head through and reach down for feed as opposed to reaching horizontally for feed. Feed wagons where the feed is located at the same horizontal plane as the animal's muzzle have been demonstrated increase feed losses. Fence line feed bunks should be properly fitted for each size group of heifers. Post and rails, throat guards, and or self locks should be checked and adjusted to proper dimensions. Listed in Table 1 are minimum bunk space requirements and suggested dimensions for post-and-rail feeding fences and waters. Producers wishing to limit feed dairy heifers should follow the bunk space requirements for-all animals eat at once-in Table 1.

Use Feed Sorting as a Management Tool

Research at the University of Wisconsin has demonstrated heifers will sort feed very similar to lactating dairy cows. Heifers, like lactating dairy cows, will choose to consume the shortest particles first and refuse long feed particles. Because long forage particles and or corn cobs generally contain more NDF or less energy than small feed particles, such as grain, heifers may consume diets higher in energy than formulated. Likewise, if heifers are allowed to refuse long feed particles, heifers will not reach fill limitations as soon and subsequently dry matter intake will increase. Data in Figure 1 demonstrates the effects of reducing feed offerings to heifers, forcing the heifers to consume all or most long feed particles. The result is a slight decrease in feed intake which results in saved feed and improved feed efficiency.

Feed Adjustments in Small Increments

Research data from South Dakota State University suggest heifers (or steers) should not be over-fed on a daily basis. Precisely monitoring and controlling feed intakes and feeding heifers to exact intakes (very minimal feed waste) will reduce feed wastage and increase feed efficiency. The combination of proper bunk design and feeding heifers to exact intakes has been shown to result in 10-15 percent improvements in feed efficiency. To feed heifers to exact intakes, a bunk scoring vocabulary should be utilized. A simplified bunk scoring vocabulary is:

Score	Definition
0	No feed remaining
1	A few small scatter particles of feed remaining
2	Many feed particles remaining, concrete still visible
3	Large amounts of feed remaining, no bunk concrete visible

The objective of a controlled bunk management feeding system is to feed heifers to a bunk score of 1 every day. If bunks are empty (Score 0) or excessive feed is

Remaining (Scores 2 and 3), then feed intakes are moved up or down in small increments (2%) to facilitate feeding heifers to a bunk score of 1. This type of feeding systems also helps assure heifers consume all large feed particles and feeds such as corn cobs. Full consumption of diet also assures the formulated diet is actually being totally consumed.

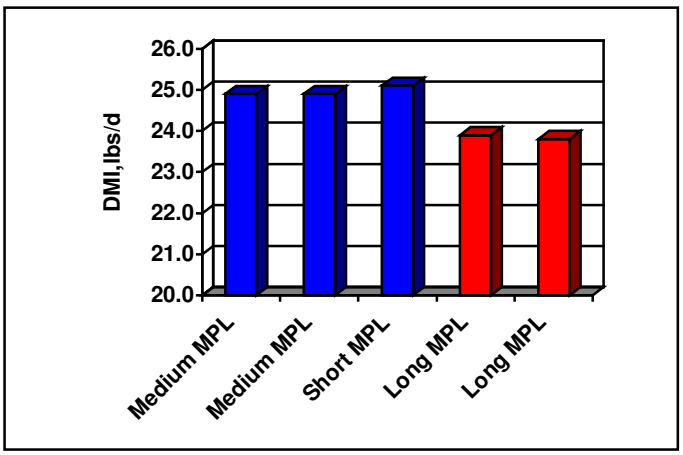
Conclusions

Bunk design and management are often overlooked in heifer management programs. Proper bunk management has been demonstrated to increase feed efficiency 10-15 percent which directly results in a 10-15 percent reduction in feed cost or in an annual feed cost savings of $30.00-$40.00 per heifer.

Table 1

	3-4 Mo.	5-8 Mo.	9-12 Mo.	13-15 Mo.	16-24 Mo.
Feed always available					
Hay or silage	4 in/head	4 in/head	5 in/head	6 in/head	6 in/head
Mixed ration or grain	12 in/head	12 in/head	12 in/head	18 in/head	18 in/head
All animals eat at once					
Hay, silage, or ration	12 in/head	18 in/head	22 in/head	26 in/head	26 in/head
Throat (height, in)		14	16	17	19
Neck Rail (height, in)		28	30	34	41
Maximum Water (height, in)		29	31	33	34

Figure 1



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