

# Managing Feedbunks and Water Troughs

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Every day, a dairy cow will eat approximately 50 lbs of dry matter and drink 30 to 50 gallons of water. High producing cows will consume more. Properly sized, maintained, and managed feedbunks and water troughs allow cows to consume adequate amounts of feed and water which can directly impact milk production.

- **Sizing.** To maximize feed intake, the feedbunk should be sized for 24 to 36 linear inches per cow in the pen depending on the stage of lactation. For a post and rail, the rail should be 48 inches tall from where the cow is standing and is 8 to 12 inches forward. Headlocks should be tilted towards the feedbunk and away from the cow by 4 to 6 inches at the top to increase access to feed. Fresh cows should have about 36 inches at the feedbunk (30 inches with headlocks) to maximize their production and allow them access to feed. Later lactation cows can be closer to the 18 to 24 inches. Dry cows, especially those close to calving, should have 36 inches each of feedbunk space as they are wider and need more room to stand. Most pens will at some point become overcrowded. In each pen, there should be enough water space for the maximum number of cows in at least 2 locations within a pen. The minimum amount of water space required per cow is 3 linear inches. A linear inch refers to the length. This allows multiple cows to stand at the trough to drink simultaneously. Cows should not be more than 50 feet away from water troughs.
- **Cleaning.** To maintain feed and water intake, water troughs and feedbunks must be cleaned routinely. At least weekly, water troughs should be dumped or drained and scrubbed with a disinfectant, preferably a weak chlorinated solution, such as household bleach with 1 cup bleach to 5 gallons of water solution. The water trough should be thoroughly scrubbed to remove algae and feed particles. After thorough scrubbing, the disinfectant should be washed out before refilling the trough. Feedbunks should have uneaten feed removed once daily. This allows fresh feed to be available to the cows. If old feed remains in the bunk, feed will heat and spoil more quickly.
- **Push up feed.** Lactating dairy cows should always have fresh feed available. Between feedings, feed should be pushed up to prevent the cows from having to reach for feed or going without. The most critical time for pushing up feed is 2 hours post feeding. Thus, feed should be pushed up every half hour for the first 2 hours.
- **Refusals.** Cows should be fed so that at least 1 to 3% of their daily intake is left after a 24 hour period. Cows should be fed such that there is some feed left at the next feeding. Refusals allow for cows to have feed in front of them at all times. If no or little refusals remain, the feedbunk should be monitored closely and feeding times and amount adjusted so that the cows do not go without feed.

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- **Feeding time.** Ideally, cows should have fresh feed available upon return from milking. If cows are fed once a day, feed should be delivered in the evening. By feeding in the evening, this prevents the feed from heating up during the day and encourages the cows to eat during the cool time of the day. However, feeding twice daily is recommended, especially during the summer.
- **Sorting.** Sorting occurs when cows are able to sift through their feed and pick out what they want to eat and is an indicator of a nutritional or management problem. Cows that sort their feed are more likely to experience ruminal acidosis. Sorting can be seen in a feedbunk when there are a large amount of cobs or long fibers 6 to 8 hours after feeding. Kernel processors on a silage chopper break the corn cob into 8 pieces when adjusted properly and decrease ability of cows to sort out the cob. The presence of long fibers indicated that the TMR mixer is not processing the hay enough. Hay in the diet should not be longer than the width of a cow's muzzle and mixed throughout the TMR delivered to the feedbunk.