# **Info**sheet

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# **Bunk Management: Utilizing Feed Pushers in Feedlots**

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## **BUNK MANAGEMENT PROJECTS**

A number of projects have been conducted in recent years aimed at improving bunk management of feedlot cattle. These have included efforts on effective fibre and a survey of the feed industry regarding on-farm practices. Starting in the summer of 2020, bunk management strategies were evaluated at various farms by Ontario Corn Fed Beef, and the Ontario Ministry of Agriculture, Food, and Rural Affairs. Through the use of trail cameras ('cams') installed in various barns, bunk management was evaluated. Slick bunk management is a common practice that reduces feed waste by allowing the bunks to be empty for an hour or less. However, it was often found that the bunks were left empty for longer than an hour. In fact, the average length of time was found to be 5.5 hours with an empty bunk, which can cause digestive issues and performance problems for the cattle. Notably, the trail cams found that there was an increased response from the cattle during feeding times and feed push-ups.

In the summer of 2021, bunk management strategies were evaluated for newly received cattle. This is a critical period for the health of cattle that can impact their performance in the future. It was demonstrated that consistent feeding times and feed availability is very important and should be focused on more by producers.

#### **Bunk Management Practices Evaluated**

Through the use of trail cam in each of these studies, the importance of proper bunk management is apparent. Having consistent feeding times and frequent push-ups, allows for the cattle to have a more consistent feed intake throughout the day and night. Ensuring that there is enough feed available for the cattle when the feedlot operator is away from the barn can be accomplished by 'reading' the bunk consistently prior to feeding and every time people are in the barn, in conjunction with pushing-up feed.

## **FEED PUSHERS**

Feed pushers are commonly used in the dairy industry to help promote feeding behaviour and feed intake. They reduce labor by eliminating manual pushups and allow for push-ups even when the farmer is away from the barn. In the beef industry, manual pushups are commonly performed multiple times a day on farms with flat bunks (tables) but not needed with J bunks (manger types). As seen in Figure 1, there is a significant amount of feed that is out of reach to many of the cattle shortly after feeding time.



**Figure 1.** Trail cam image showing cattle eating at a table a few hours after feed delivery by TMR mixer. There is often feed out of reach for cattle on table-type bunks

In Figure 2, the feed pusher pushes the feed toward the cattle allowing access to the rest of the feed. This can reduce aggression and digestive issues at the bunk by

allowing for consistent amounts of feed throughout the day, provided there is enough feed available to the cattle throughout the day and night.



**Figure 2.** Trail cam image showing the feed pusher pushing up feed that was previously offered to the cattle by TMR delivery truck

#### **Feed Pusher Project**

Beginning in the summer of 2021 bunk management strategies have been evaluated with the use of feed pusher/refreshers. Two sites had similar automated products installed from two different manufacturers. The feed pushers were used on pens with flat bunks (Figures 1 and 2). Previous to the installation of this technology, the feed was pushed up throughout the day manually or by vehicle-mounted blade. Trail cams were used to determine feeding behaviour before and after the machines were installed to determine if this technology had the ability to drive intake for the cattle and encourage more frequent bunk visits.

At one of the two sites, feeding behaviour, and intake were compared between three different bunk management styles: J bunks (Figure 3) and flat bunks (tables), with push ups being conducted by each the automated feed pusher or the blade mounted on a skid steer. Newly received cattle were split across the three treatment groups. The results of these three treatments were evaluated and compared, with no measurable impact on performance by any method. This implies that the benefits, if any should be predicated on capital and operating costs of the feedlot facility, as well as the intangible effects of ensuring consistent intakes and rumen health.



**Figure 3.** Cattle eating from J-bunk shortly after feeding. This technology has long allowed the feedlot sector to avoid the need for push-ups, but the use of better feed push up approaches might allow a table or flat bunk to be used more commonly.

#### Conclusions

Feed pushers may be a valuable technology for producers, allowing them to reduce labor and ensure consistent feed intake throughout the day and night for the cattle. Through data collected from this project and past projects, producers are often not aware of the amount of time the bunk is left empty at night and the resulting acidosis risk. The use of a feed pusher can be helpful to producers provided enough feed is offered for the machine to make available to the cattle, and that they are not overly limit-fed. Whether or not the pushup is automated, there are potential barn cost advantages with a table vs J bunks or drop-mangers that require bunk management and barn design decisions to be interrelated.

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