

Motivating cows to move

Essentially, cows move to get access to something they like.

In a pasture-based system, if cows are put in a paddock with an abundance of feed, water, shade, shelter and herd-mates it is unlikely that they will present at the dairy for milking at the desired frequency. Your job is to train cows to realise that they can get access to what they like by moving to find it.

Once on the move cows can be directed through the milking unit and milked if appropriate but it is important to realise that an AMS farm cannot operate successfully on the off-chance that cows will move around the system.

Some of these ‘desirables’ are more effective and reliable at motivating cows to move than others. Once you understand their relative effectiveness, you can evaluate all aspects of your system to see if cow traffic is being encouraged or impeded.

Will it motivate cows to move?	Feed is the most important tool farmers can use to encourage cow traffic.
Feed/Pasture	<p>Most reliable of all options.</p> <p>Will motivate cows to different levels depending on their appetite.</p> <p>Early lactation and high producing cows will be inclined to be more active in the search for plentiful and easily harvestable feed.</p> <p>Late lactation/low producing cows may tend to take a light picking from a paddock with low pasture covers rather than walk out of the paddock in a search for more feed.</p>

Will it motivate cows to move?	Water can potentially be used to encourage cow traffic but needs to be used in this manner with caution.
Water	<p>Dairy cows require and will seek large volumes of water on a daily basis. Water must be available to cows at all times.</p> <p>Water can be used to encourage cow traffic as long as it does not impact on water intake.</p> <p>Ensure that milk production is not negatively influenced by a reduced water intake.</p> <p>Note: if a system relies on water as motivation for movement, its effectiveness can be reduced if water becomes available in an uncontrolled fashion – e.g. puddles, surface water in paddocks and dew on pasture.</p>

The location of water can often be used to encourage cow traffic simply by its location without limiting the access that cows have to the water.

For example if the water is in the laneway outside the paddock then it may encourage some cows to continue walking to the dairy after drinking rather than returning to the paddock. At the same time it will not restrict cows that wish to traffic from the paddock to the trough and back to the paddock.



Will it motivate cows to move?

Additional or supplementary feed may act as an incentive when it is incorporated into the system.

Additional or supplementary feed

The degree of motivation that additional or supplementary feed will supply depends on how much is on offer and where it is located. Poor accuracy of feed allocation is the most common reason why this tool is not effective in encouraging cow traffic.

The total amount of supplementary, concentrate and/or pasture offered should be measured to ensure that cows are getting the right allowance (as a herd average). Ensure cows have the ability to consume the allowance.

Ideally, provide feed in small allocations (each less than 50% of daily allowance – ideally about 30%) to ensure that cows deplete the feed source and then start to move around the system.

Large allocations of supplementary feed can be made available in one location if that same location does not have provision for a comfortable loafing area – cows will move off to seek this.

Where a system does not incorporate a feedpad, supplementary feed can be effectively made available to cows in the paddock just as it is in a conventional milking system, provided that the total amount of the feed in the paddock (supplementary feed plus pasture) is not excessive.

Cows may choose to select high quality pasture over low quality feed making it very difficult to encourage them to stay in a feedpad and consume the supplementary feed.

On the other hand, high quality and palatable supplementary feed may be more desirable to cows than low quality pastures, again making it difficult to encourage cows to consume the pasture particularly if large volumes of supplementary feed are being made available.



Will it motivate cows to move?

Cows will willingly walk away from a feedpad or a feedtable in search of a comfortable area to loaf and/or ruminate.

Loafing area

Cows will willingly stand on a concrete feeding area for about 2-2.5 hours before they leave in search of a loafing area.

In an intensive system distinction between feeding and loafing areas allows some control over cow traffic.

In a pasture-based system if a loafing area is incorporated into the feedpad you can use it as a parcel of feed e.g. a third allocation of feed within a 24-hour period). Most cows won't leave the feeding and loafing area until the feed is gone.

If a loafing area is not available then the feedpad can only be used to supplement pasture breaks whilst cows are en route to the dairy/paddock.

Whilst feed is plentiful cows will generally remain for 2-2.5 hours then move off the feedpad.

Note: The level of crowding, quantity/quality of feed and social issues will affect movement.

Will it motivate cows to move?	Shade, shelter and cooling are incentives that have potential to work with varied impact depending on the location of these and the climatic conditions.
Shade, shelter and cow cooling	<p>On a very hot day cows are more likely to stay in the paddock rather than walk a large distance to the dairy for shade.</p> <p>Anecdotal evidence from the Camden AMS research farm shows that neither shade nor shelter can be reliably used to encourage cow traffic, particularly if the distance from the paddock to the shade or shelter is too great.</p>



Will it motivate cows to move?	Udder pressure or the desire to relieve the udder of milk is generally accepted as a very low ranked incentive.
Udder pressure	<p>It is possible that this acts as an incentive for some cows (particularly in an indoor system where walking distances are small).</p> <p>The desire of cows to relieve the pressure on their udders is not a strong enough incentive alone to be relied on for successful management of a pasture-based AMS.</p>
Will it motivate cows to move?	Social contacts may encourage cow traffic around the system, but it is unlikely that it can be easily used to encourage regular movement.
Social factors	Our understanding of social interactions and their impact on cow traffic is very limited at this stage.

If cows are not moving around the system in a manner that is suited to the farm’s objectives, then manipulate the timing, size, availability and/or location of the ‘movement motivators’ to modify the cow traffic.

Aim for a system that works for you, the cows and the bottom line!