

Common misconceptions about AMS

There are a number of misconceptions and myths about automatic milking systems. If you subscribe to them then you may not manage the system in an optimal way.

Take a quick reality check:

If you think this...	Think again...
It is just a new way of milking cows...	AMS is a new way of farming. If you fail to re-think your approach to pasture/feed management for example you may end up with cows being milked more frequently but being underfed.
High levels of pasture utilisation can't be achieved with AMS...	<p>Some people think post grazing residuals can't be well managed if cows are not locked in and 'forced' to eat pasture down.</p> <p>The Camden system has clearly shown this is not the case.</p> <p>You can choose to redirect cows back to a paddock if feed is under-utilised – you are still in control and your cows are already trained to graze to the levels that you expect of them.</p>
If cows move around the system, they must be hungry which means they are not getting enough feed which means they must be underfed!	<p>Often farmers assume that unless cows are offered pasture in big breaks (i.e. morning and night paddocks), they will be underfed. Also, that offering smaller parcels of pasture is somehow less optimal than bigger areas and equates to underfeeding cows.</p> <p>In fact, smaller parcels of feed encourage the cow to move around the system looking for the 'fresh pick'. The same daily intake can be achieved as with a conventional approach.</p>

If you think this...	Think again...
Cows like to be milked and udder pressure/fill is enough of an incentive to get them to the dairy...	<p>From a cow's point of view, milking frequency and milking intervals are more likely to be determined by an interest in their stomachs rather than enjoyment of being milked by a machine!</p> <p>While it may be hard to accept that cows actually prefer access to feed and loafing over being milked, it is true.</p> <p>Don't underestimate the effort you should put into motivating cows to move through careful allocation and access to feed.</p>
Cows in late lactation cannot be enticed to the dairy...	This is true for some late lactation cows but if production is maintained then so is the appetite and the motivation to move around the system.
AMS makes for happy cows that will therefore produce lots of milk...	If cows have been subjected to lots of polypipe and nipping dogs then maybe the change to an AMS will have an impact on let down. Be clear however, that the quantity and quality of what you feed cows is the real driver of production.

First principles and keys to success

Realistic expectations start by understanding the key principles for the successful operation of an automatic milking system.

Farmers who are successful at AMS keep the following principles in mind.

- **Voluntary cow movement** – you need infrastructure and management strategies that encourage consistent and reliable cow traffic around the farm.
- **Accurate pasture allocation** – your pasture/feed management is the key to reliable cow movement. Cows are mostly motivated to move by the hope of accessing more feed.
- **A distributed milking pattern** – this refers to the milking units being used fairly evenly over a 24-hour period. You need to reap the benefit of your investment in milking units by ensuring utilisation rates are optimal.

In challenging practical situations or when you have decisions to make, remember these three principles and what the system needs to achieve overall.

Three key terms:

Milking frequency – number of times cow is milked per day. Helps decide if the herd is on track to achieve production targets. Farmer can set machine to allow/deny milking for individual cows based on stage of lactation etc.

Machine utilisation – number of milkings per unit. Sometimes measured as litres harvested per machine per day or as idle time per machine per day.

Milking interval – number of hours between milkings. Interval too long – drop in production, increase risk of mastitis. Interval too short – milk yield too low and potential for poor attachment with flaccid udder and low milk harvesting rate (yield per minute).

Voluntary cow movement

What drives cow movement?

Cows are highly motivated to move to access feed. You achieve good voluntary cow movement by setting up farm infrastructure in a way that makes it easy for cows to gain access to what they seek.

As an AMS farmer your most important management task is to plan and oversee cow access to these things and to set up and manage the system in a way that encourages a reliable and consistent pattern of cow movement.

Decision	Think about the impact...
Number of laneways to/from the dairy	Lessons from the Camden AMS research farm show that a farm layout with only one split laneway laneway direction extending to/from the dairy can work with AMS but additional laneways increase flexibility. This can improve cow traffic, milking frequency, machine utilisation and regularity of milking interval.

Cows like access to feed/water, loafing areas, shade, shelter, herd mates but the most reliable motivator for movement is access to fresh feed. Design and manage your system to optimise cow flow and cow traffic. Ensure that milking frequency is not impacted by the inability of cows to find their way around.

The more often the available feed source is depleted, the more cows will traffic around the system.

More frequent trafficking can result in increased milking frequency (if this is desired) and reduced variability around milking intervals.

There are a number of key decisions to make:

- How many pasture allocations per day do you require?
- Will you include a feed pad?
- If yes, will the feedpad have a loafing area with it?

Decision	Think about...
Number of pasture allocations	Offering cows two allocations of pasture per day is workable but there are times when offering three per day allows you to target periods of low machine utilisation. This provides an opportunity to increase the milking frequency for selected cows which may include early lactation cows or heifers.