

## System Management & Summary

- Automatic milking systems (AMS) can be integrated into a grazing system. In the first year one to commit time and patience with a hands-on approach to the management of AMS information/data, cows and grass.
- International research recommends a 3-way (ABC) rather than a 2-way (AB) system of grazing as it has been shown to enhance cow movement and increase the utilisation of the AMS.
- Teagasc research indicates that in late lactation reducing milking frequency reduced time spent waiting to be milked in the yard and slightly reduced milk yield by 0.7 kg/cow/day. In addition the milk production response to autumn concentrate in an AMS is similar to conventional system.

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- A double AMS compared to a medium spec conventional milking system, both with 140 cows, is estimated to be less profitable over 10 years. However, the decision to invest in an AMS is influenced by more than just profit, such as less physical labour, more flexibility in the working day and the overall reduction in the length of the working day.

## Further Reading on this Project

AUTOGRASSMILK:  
<http://autograssmilk.dk/>

TEAGASC:  
<http://www.agresearch.teagasc.ie/moorepark/automation-and-technology/index.asp>



## Combining Automatic Milking with a Grass Based System – Including practical tips from Aidan and Anne Power



## Grass Management

- It is important to know the size of every paddock on the farm.
- Estimate cover at least weekly and in each paddock as cows enter it.
- In the AB system as on Aidan and Anne's farm, daily grass allocation is approx. 50:50 for A and B.
- In an ABC system allocate one third of the daily allowance in each block
- In the first year of conversion to AMS, err on the side of being too tight in herbage allocation. If the allocation is too lax it upsets cow movement. After a while cows will learn the time of gate change between A and B and will begin to automatically move block themselves.
- Weather can affect the rate of cow movement, for example, cows can get lazy in hot weather.
- Use the previous grazing as a guide to accuracy of grass allocation.
- Need flexibility – back fencing, plenty entrances to paddocks, flexibility with fences.
- Extra cow tracks can make a big difference. They should be approx. 2.5 m wide. If they are just used in spring and autumn they can be created simply by using a wire and taken down for the rest of the year.

## Cow Management

- Start training cows and heifers when they are dry by walking them through the robot and giving them concentrate.
- Allow 2 to 3 days for heifers to walk into the unit without encouragement.
- Once calved and milking it will take another 4 – 5 days to train to milking (noise, clusters on and off, etc.).
- If a heifer is cross Aidan puts the calf outside the unit, the heifer stays calm once she can see the calf next to her.
- Aidan and Anne keep freshly calved cows together for the first few days and milk them as a batch to help the heifers settle and to collect the individual cows colostrum for her calf.
- You need to watch the cows and particularly the heifers in the yard to ensure they understand the grazing gate which leaves them out to grass.
- There is a risk that heifers could get stuck in the yard and not get through the grazing gate at the start. Once they go through it a few times (4-5 days) they are usually fine for the rest of the year.
- Check cows twice a day; don't just look at the computer.
- Generally once cows are trained they do not need to be retrained the next year.
- Give cows time to learn the system.

## Aidan and Anne Power - Lessons Learned

- Very important to go through the data twice a day on the system.
- The first year is difficult getting used to the system and the data but it is very manageable when you get used to it.
- Learn how to do the basics like changing liners, simple repairs.
- Need to stay on top of grass quality – stagger topping and taking out bales between blocks so quality is the same in all.
- Give cows time to learn the system.
- Requirement to collect cows from the paddock varies depending on time of year. In general they tend to be slower to come in in the autumn as milk yield declines.
- There tends to be more alarms from the system in spring with fresh calvers.
- With time, operator will learn a lot about the alarms and issues associated with the alarms.
- The first year is difficult as you, and the cows, get used to the system.
- Spend time with the grass management, cow management, AMS maintenance and data assessment every day, persist with this in the first year and by the second year the system will operate much more fluently for both farmer and cows.