



As time progresses so does the technology incorporated into our dairy industry. In 2001 the New Zealand dairy industry embarked on a long-term investigation into the feasibility of incorporating AMS into a pasture-based grazing system. At the same time a Victorian farmer installed 4 Lely AMS' to milk his herd of around 240 cows. Nearly 5 years later the FutureDairy AMS research farm was commissioned to examine the feasibility of maintaining high levels of pasture utilisation within an Australian AMS. Today (July 2009) we have an additional three commercial farms up and running and an additional 4 commercial farms signed up and embarking on the early stages of installation. Here in Western Victoria AMS is now available to farmers contemplating changing their milk harvesting system and at an even higher level – “their way of farming”.

### **What is AMS?**

An Automated Milking System (AMS) is the next level beyond batch milking with automation in a conventional dairy. A conventional dairy can be semi-automated with auto feeding, drafting, ID, milk metering, and cup removal but AMS is total automation of the milk harvesting process.

- An AMS is reliant on cows bringing themselves to the dairy, being milked without human assistance and trafficking unassisted back to pasture. It is therefore also known as a Voluntary Milking System or Robotic Milking System.
- AMS is also a distributed milking system rather than a batch milking system. In an AMS the ratio of cows:milking 'clusters' is much greater (70-80 cows/set of milking cups) resulting in the requirement for cows to be milked throughout the 24-hour period.

### **Is AMS a viable option for Australian dairy farmers?**

The economic viability of AMS will depend largely on the size of the herd with the viability likely to reduce as the herd size (and resultant number of AMS units required) increases. However, individual farmers will have to carry out their own economic evaluation of AMS to determine if it is an option for their business.

We are definitely at a stage that we know that AMS can be successfully combined with a pasture-based system. A well managed system should be able to achieve good production levels, high pasture utilisation and good levels of machine utilisation.

### **Why do people adopt AMS?**

Overseas information has indicated that the majority of farmers adopting AMS do it for non-financial reasons. Whilst the system needs to be feasible and economically viable, the key reason for investment is not usually to increase the profitability of the business. Improving lifestyle and reducing the reliance on employed labour are generally a higher priority reason for investing in AMS.

### **What does AMS do for the farm business?**

The greatest effect of AMS is to reduce the total people hours spent harvesting the raw product – i.e. milking cows. How this is captured will depend on the individual operation and often the size of the operation. Some people will carry out a much shorter working day (maybe working from 08:00 to 16:00) and capture the benefit of being more sustainable with regard to lifestyle (e.g. having the ability to increase family and recreation time by having reduced and more flexible hours) and labour (attracting and retaining staff in the business). Other people may decide to continue working long hours (e.g. 05:00 to 18:00) and remove an entire labour unit from their business therefore allowing them to capture a financial reward. However it is captured, AMS results in a reduction in the number of hours carrying out the tedious task of milking cows.