# Automatic milking systems
## on commercial farms in Australia
### By Kendra Kerrisk

During 2009, the Australian dairy industry has seen a marked increase in interest in robotic or automatic milking systems (AMS).

People are still showing interest despite the current difficult financial times.

Like any new dairy, AMS is a major investment so dairyfarmers plan well ahead. Some of the current interest in AMS may be from farmers looking several years ahead.

By November 2009 there were eight commercial Australian farms and two New Zealand farms with AMS up and running.

There are now AMS farms in north, west and eastern Victoria, Queensland, New South Wales, South Australia and Tasmania.

Another two Australian dairy farms have either signed up for AMS or are in the installation phase.

By the end of 2009 there will be at least 46 machines operating across Australasia with most Australian AMS farms having two to four robotic units.

## Overseas

AMS has been used commercially in overseas countries for many years.

About 15,000 robots are in operation worldwide; installed on 10,000 farms in about 32 countries.

These farms are predominantly indoor systems with cows housed for all or most of the year. However over the past year the number of pasture-based automatic milking systems in other parts of the world has started to increase.

## Pasture utilisation

While the automatic units are well proven, a challenge for Australian pasture-based farms has been to implement a farming system that allows them to maintain a high level of pasture utilisation. Research at Camden has demonstrated that this is indeed achievable under commercial conditions.

Over the past two years, pasture utilisation at the Camden AMS has been 14.9 and 15.6 tonne DM/ha on irrigated pastures.

Farmers should no longer be concerned about having the ability to maintain a high level of pasture utilisation when cows are moving around the system in a voluntary fashion.

## Guidelines

FutureDairy is producing management guidelines for automatic milking systems which will be published in the coming months. The guidelines cover topics such as making the decision on whether or not AMS is suitable for an individual operation, right through to the daily management routines for established systems.

## On-line discussion group

FutureDairy has an online discussion group for dairy farmers with a keen interest in automatic milking. It's a great way to hear other farmers' experiences and to get feedback on specific issues you are interested in. To subscribe go to http://groups.google.com.au/group/futuredairy.

## For more information

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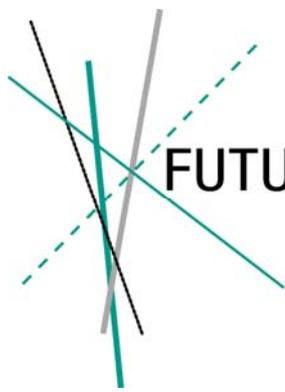
## About FutureDairy

FutureDairy aims to help Australia's dairy farmers manage the challenges they are likely to face during the next 20 years. The challenges are expected to be related to the availability and cost of land, water and labour; and the associated lifestyle issues.

Our activities are structured around two priority areas – Precision farming (including automatic milking and innovations) and Feedbase (forages and feeding). These are the areas where there are opportunities to address the challenges related to water, land and labour resources.

For **Precision Farming** we are investigating technologies with potential to improve farm productivity, efficiency, labour management or lifestyle. FutureDairy is pioneering the development of pasture-based farming systems that use robotic milking for larger herds. Our research is conducted at Australia's first automatic milking system (AMS) research farm, at the Elizabeth Macarthur Agricultural Institute at Camden. Since mid-2009 we have been testing a new concept automatic milking system designed specifically for Australian conditions, while continuing to further develop the farming system around the milk harvesting equipment.

Our **Feedbase** goal is to develop sustainable dairying systems for the future, with the intensification of home-grown feed to enable more efficient use of land, water and grain. Our trials are being conducted at the University of Sydney's Corstorphine dairy farm and Mayfarm. The investigation is complemented with modelling and component field research in areas of forage production and utilisation.

We are investigating a complementary forage system (CFS) that involves triple cropping on 35% of the farm area and growing pasture on the remaining 65%. Our target is to produce more than 25t DM/ha/y rover the whole farm area, in a sustainable way. The three crops include:
- a bulk crop (eg maize);
- a legume for nitrogen fixation (eg clover); and
- a forage to provide a pest/disease break and to improve soil aeration (eg a brassica).

FutureDairy is now in its second phase. During the first phase, we used existing technology for automatic milking to test the feasibility of robotic milking in a pasture based system. The promising results paved the way for testing a new prototype AMS with a larger herd during phase 2.

In the first phase, our Feedbase studies tested the feasibility of a complementary forage rotation grown on a small area, both under research and commercial conditions. Phase 1 combined technical research with social research and extension research. During phase 2 we are drawing upon that learning experience to improve our linkages with major extension groups.

### Contact us

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