

## dairy news

# Robots may soon herd cows

Automation solutions are already having a big impact on many Australian dairy farms and there are options on the horizon.

FutureDairy project leader Kendra Kerrisk believes the greatest opportunities lie with technologies that save labour by automating repeated tasks, collecting and reporting data to help decision making or collecting new data that hasn't been able to be recorded in the past.

"Robotic milking offers all three benefits but of course it involves a major capital outlay and a period of six to 12 months to adapt the farming system to realise these

benefits," Associate Professor Kerrisk said.

"There are now four brands on the market giving more options with single box, multi-box and the robotic rotary."

Other repetitive tasks that can currently be automated in the dairy include yard washing, drafting and weighing cows, individualised feeding, milk sampling and testing for composition, oestrus detection aids and mastitis indicators.

"There are numerous robotic arms available overseas for pre-milking teat preparation and post milking teat sanitation, although

they are not available here yet," Assoc Prof Kerrisk said.

"These are mostly compatible with the manufacturer's own milk harvesting installations."

The FutureDairy team is excited about new technologies that allow dairy farmers to collect animal performance information.

"This is an example of products that allow automatic collection of information that we haven't been able to record in the past," Assoc Prof Kerrisk said.

"For example, the combined use of activity monitors and rumination sensors is looking very promising for automatic heat de-

tection, early diagnosis of illnesses and possibly to provide an automatic alert at the onset of calving.

"This technology is commercially available in Australia."

The FutureDairy team will conduct trials this year to better understand the value of the data provided and how to interpret the results.

Technology has also been developed to automatically sample milk from individual cows and analyse it for automatic detection of animal performance, particularly oestrus, mastitis and ketosis.

"The technology is sold overseas but it is unknown if, or when,

it might become available in Australia," Assoc Prof Kerrisk said.

FutureDairy has conducted some initial trials on the potential to use a robot to herd dairy cows from the paddock to the dairy.

"The results were very promising; we were amazed at how calm the cows were in the presence of a robot."

FutureDairy will continue work in this area using a custom-built prototype, in association with the Australian Centre for Field Robotics at the University of Sydney, who are pioneering the use of robots in a range of agricultural settings.

## MURRAY DAIRY FOCUS FARMS

### Katandra West

MAY 5, 2014

Milking Area: 126 ha

#### PRODUCTION

Cow numbers.....	260
Kg milk solids/cow/day .....	1.77
Litres/cow/day.....	21.9
Fat % .....	4.5
Protein % .....	3.59

#### GRAZING AND SUPPLEMENT FEEDING (kg DM per cow)

Grain mix @ 30 cents/kg DM (barley @ \$285/t, canola @ \$400/t).....	6.4
Purchased feeds (/kg DM) .....	8.1
Pasture (kg DM) approx. ....	4
Area in rotation (ha) .....	40
Rotation length (days).....	40

#### DAILY INCOME OVER SUPPLEMENTARY FEED COSTS (IOSFC)

May Milk Price (\$/kg milk solids, includes loyalty payment).....	\$7.01
Purchased feed cost/cow .....	\$4.02
IOSFC/ha.....	\$17.31

# Cost of pasture has not been included. This will range from 10c - 20c per kg DM during the year  
## Milk price is current announced total package and inclusive of productivity and quality

#### COMMENTS

Firstly, an apology about some numbers last month. Milk production was 24.5 litres (not 34 litres), this meant that kilogram of milk solids per cow was actually 1.96 and the income over supplementary feed costs per hectare was \$33.44.

Nick and Jane have purchased the farm across the road - 50 ha. It was sown down to rye and shaftal and watered, then 75 mm of rain fell on it as well and unfortunately the pasture died. The new farm was sprayed out and totally resown, resulting in the current pasture shortage.

The lasered paddocks have been sown and the 75 mm of rain has really kicked it on.

There are still 45 cows to calve and once they are all in Nick and Jane will be milking 320.

The new dairy is well on the way, and progressing on track.

Save the date Thursday, June 26 for the final open day at Nick and Jane's farm.



**Formal occasion . . .** At the official opening of the Pactum Dairy Group factory are (from left) Tony Perich from Freedom Foods, Deputy Prime Minister Warren Truss, Deputy Premier Peter Ryan, Freedom Foods managing director Rory Macleod and ACM managing director Michael Auld.

## Chinese UHT deal looks bright

By Geoff Adams

The new Pactum Dairy Group factory in Shepparton will be supplying UHT milk to China through a recently signed agreement.

Freedom Foods managing director Rory Macleod told the opening ceremony last week his company had reached a strategic supply agreement in April with Bright Dairy of China.

Bright Dairy is one of China's largest dairy producers.

Mr Macleod said Australia had a unique advantage in the supply and manufacture of

high quality premium agriculture-based foods.

"With increasing demand from markets in China and South-East Asia for high quality value-added product, Australia, through companies such as Pactum, is well placed to play an important role in this supply chain."

The factory is a joint venture between Freedom Foods Group and Australian Consolidated Milk.

The facility has an initial capacity for 100 million litres annually, with capability to be increased up to 300 million litres in the future.



**Success story . . .** Freedom Foods managing director Rory Macleod addresses the crowd at the factory opening.

## Goulburn Valley Hay and Grain Report

Week ending May 2	Previous price	Price this week	Price directions
<b>GRAIN*</b>			
Wheat	\$279 - \$289	\$277 - \$287	Down \$2
Barley	\$248 - \$258	\$248 - \$258	Steady
Triticale	\$260 - \$270	\$260 - \$270	Steady
Oats	\$230 - \$240	\$230 - \$240	Steady
<b>HAY#</b>			
Cereal	\$200 - \$240	\$200 - \$240	Steady
Lucerne	\$325 - \$375	\$300 - \$350	Down \$25
Straw	\$90 - \$110	\$90 - \$110	Steady
Pasture	\$150 - \$200	\$150 - \$200	Steady

\* Prices are estimates based on delivery to dairy farms with allowance for freight, storage and marketing costs, but exclusive of GST. Grain prices are for AGP/70-10/stockfeed wheat or FB1 barley. Hay prices are based on shedded hay without weather damage, of good quality and colour. It should be noted there is a wide variation in quality for hay, so prices are indicative for a mid-range product. Source: Dairy Australia



**On the line . . .** Viewing the packaging line at the Pactum factory are (from left) Deputy Prime Minister Warren Truss, general manager of operations Mark McWhirter and Freedom Foods shareholder Tony Perich.