Reproductive Management Systems®

‘We Get Cows Pregnant’
Why pregnancy production matters

In times of high or low milk prices, increasing efficiency should be high on the agenda for Australian dairy farmers looking to boost profitability and returns. The big question is, where do you start?

While on-farm strategies such as reducing the use of purchased feed, negotiating better input prices, and culling non-profitable cows will all help improve margins the reality is the single biggest way to increase margins is by focusing on driving the number of pregnancies on your farm. In fact, improving herd fertility increases margin per litre more than any other strategies because more fresh cows per year:

- **Increases annual milk yield:** Increasing the number of fresh cows every year means more cows are in their peak production period (0-100 days)
- **Increases feed efficiency:** Early lactating cows produce over 1.7kg milk - per kg of feed dry matter, while late lactation cows this equates to 1 kg milk per kg feed dry matter
- **Increase the number of available heifer calves:** More calvings per year means more heifers available to increase herd numbers, increase culling of infertile or unprofitable cows, or sell for added farm income

Estimating income losses from poor reproductive performance can be difficult. The Australian dairy industry has established reproductive goals to ensure your farms reproductive performance is maximizing your farm’s profitability. If your farm reproduction results do not meet the industry-recognized goals, the potential milk loss can be calculated based on several specific factors. Any deviations from these goals will have a dramatic impact on dairy profitability.

The good news is that reproduction is a minimal cost on your farm and requires no additional capital inputs, but the improvements will substantially increase your business revenue.

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*Over time I have become complacent with breeding my herd. I assume cows still get pregnant without much effort and attention. The ABS Technical Services Manager offered some basic advice and created a simple reproduction system for my farm. All the reproduction events were laid on a calendar and what day that events would occur. Because ABS covered the majority of the work, all the events were completed and my cows were properly bred. Last year, my cows peaked 3 litres higher in the autumn and 2 litres in the spring. Having 15-20% more fresh cows in the spring and autumn instead of empty cows, I know contributed to this milk increase.*

GREG MARTIN (450 cows, Vic.)
**What can RMS® do for you?**

**What is RMS?**
The ABS Reproductive Management System (RMS) is a comprehensive, results-orientated program that focuses on maximising your reproductive results while complementing your genetics program. ABS is the global leader in delivering on-farm reproductive services and technology as seen by the over 1,000,000 cows that are individually heat-detected each day all over the world. ABS Australia is committed to your success and supports the RMS program by employing some of the best technical and professional people in the industry today.

**The RMS process**
The RMS process begins with an investigative analysis of your reproductive goals as it relates to your business. A reproductive evaluation is performed on your herd and a report is prepared for your review. A working plan is then devised that suits your specific needs and your situation. Next, discussions with your herd’s manager are held to communicate the program structure and process and to answer questions. Results are measured and the service is on going while you are an RMS subscriber.

- **Team Approach:** ABS Technical Consultants work directly with you and herd manager to incorporate the best practical and economical reproductive applications for your farm.
- **Synchronisation Management & Facilitation:** From professional advice to complete program facilitation, ABS works with you to provide the synchronization management you require to optimise your results.
- **Trained Professionals:** ABS Technical Consultants and RMS Technicians receive thorough and regular training in the USA provided by experienced and certified ABS Reproductive Management Specialists using proper, modern-day techniques.
- **Data Analysis:** ABS Technical Consultants are trained in evaluating many forms of data that can affect the economic success of your herd. Let our team evaluate and monitor your herd’s reproductive data and provide you with a concise, easy to interpret report to understanding your herd’s performance.
- **Measureable Results:** Using Dairy Data, RMS allows you to measure your reproductive results objectively and without bias. This ensures your results are justifying your investment and allows for better planning and decision making.
- **Technical Advice & Troubleshooting:** Receive sound advice on issues from the ABS Technical Consultants that can help your bottom line and avoid consequence.
- **Saves You Time:** RMS brings trained professionals to your farm every day, freeing up time for you to focus on family & other areas of your operation.

* I find my biggest challenge in breeding my cows is maintaining good & accurate heat detection over the 6 weeks of A.I and relying on staff to accurately assist with heat detection and drafting cows. The ABS RMS program provide the farm with a reproduction program that allows the duties to be performed by the ABS technician during milking. This provided a solution to the heat detection accuracy & labour issues surrounding breeding my cows. As a result, both years our submission rates have been in the mid-90s for the first cycle & in the mid-60s for the second cycle.

TRAVIS TELFORD (1700 cows, S.A.)
Informed decisions for your herd

The ABS Technical Consultants use sophisticated data analysis software, a computer-based herd management recording system. The software provides a comprehensive aid to breeding and management decisions. Our Technical Consultants continuously work with you to benchmark where you currently are, help to set targets and monitor progress. Each farm is different, but ABS will carry out a 12 monthly review to establish how the service is progressing.

**Australian Industry Standards**

The table below left contains the list of Australian reproductive standards that ensure your cows are getting in-calf in a timely manner. These goals are a key measure of your farm’s reproduction performance.

<table>
<thead>
<tr>
<th>Fertility Monitors</th>
<th>Industry Avg.</th>
<th>Industry Avg.</th>
<th>6th In-Calf Rate</th>
<th>9th In-Calf Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission Rate %</td>
<td>&gt; 83</td>
<td>&gt; 65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conception Rate %</td>
<td>&gt; 40</td>
<td>&gt; 40</td>
<td>54-58</td>
<td>66-70</td>
</tr>
<tr>
<td>In-Calf Rate %</td>
<td>&gt; 34</td>
<td>&gt; 28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**On-Farm Reproductive Summary**

The table below right shows the summary of herd reproductive performance. It shows the submission, conception and in-calf rates for that breeding period. In addition, it represents the area’s at which improvements can be or are being made. The graph below shows the herd conception rate across days in the breeding period. The graph provides a day-to-day conception rate of the herd. Changes in the day-to-day conception rate can be correlated to changes in management practices on the farm (i.e. nutritional, environmental). Not only can it be used to identify changes in management practices, but to use as a reference for future breeding periods.

A consistent source of pregnancies is fundamental for our dairy to remain profitable. We need a certain number of pregnancies per week to maintain herd size and milk production. If our dairy does not produce enough pregnancies per week to maximize its potential revenue – hard choices such as selling empty cows, increasing lactation length due to longer open days and purchasing herd replacements would be devastating to our long-term cash flow. ABS Australia Consultant Chris Kendall, with the help from ABS Global resources reviewed our reproduction program last year, advised us on several changes that would improve our herd’s pregnancies rate. Simple and practical changes (i.e. timing of injections) has improved our Ovsynch conception rate by 6-8%.

QUENTIN MOXEY (2500 cows, NSW)
Ray and Leanne Smith of NSW, understand the importance of maximizing pregnancy production on their Mathoura property. In 2006, their reproduction program produced 215 A.I pregnancies in the cows and 90 A.I pregnancies in the heifers. The Smiths now estimate to produce approximately 340 A.I pregnancies in the cows and 150 A.I pregnancies in their maiden heifers annually (see Table 1). As a result, the Smith’s expect to have 220 heifer replacements born annually, a growth of 100 A.I heifers from past years - with no increase in their herd size (Table 2). ABS Technical Services have made several management changes to the Smith’s reproduction program and all have contributed to the improvement in the herd’s reproduction performance, plus the yearly total milk production.

Reproductive Management Changes

- **Using Sexed Semen in Maiden Heifers**
  With the higher conception rates and genetic value in Maiden Heifers - using Sexed Semen (first round only) was economically and genetically the most efficient way to increase the number of A.I heifer replacements on their farm.

- **Batch Breeding - 3 to 4 Breeding Periods A Year**
  The Smiths switched from two long breeding periods a year, to four short mating periods a year. Length of each breeding period is 4 weeks (2 Attempts at A.I). Having short breeding periods maintains high submission rates and you have more control of the cow’s estrous cycle. Also more breeding periods a year reduces the amount of days the cow is empty. The quicker you can return your cow to 0-100 DIM the more profitable the cow is.

- **Early Identification and Re-enrollment of Empty Cows**
  Short intervals between breeding periods enables early identification of empty cows. Early identification allows these cows to be re-enrolled into the next breeding program. In doing so, this reduces the amount of days open, increases the amount of fresh cow milk and total milk production for the year.

*The high producing dairy cow is no doubt more difficult to get pregnant and I see dairy producers need to look for different solutions to improve their on-farm reproductive performance. I believe in larger dairy operations you need to have a reproduction management system in place, not only to maximize pregnancy production but also to minimize human error. It’s too critical in reproduction to have simple errors because improving pregnancy production you stand to gain significantly in margin terms.*

RAY SMITH (550 cows, NSW)
Employee training in reproduction management is one of the most important aspects of managing a dairy. Whether staff are employed by the dairy operation or contracted through an outsourcing agency, they need to be properly trained in order to improve the herd’s reproductive success.

To fill this void, ABS Technical Services has developed an advanced off-site training program, located in Washington, U.S.A, to provide ongoing intensive reproductive training. The principles of the program are quite simple: use proper heat detection to breed the right cows to improve pregnancy rates without overbreeding.

To meet these goals, ABS technicians learn through both classroom seminars and on-farm training. In the classroom they gain knowledge about topics such as synchronisation program management, data evaluation and dairy herd management and how these relate to optimising pregnancy rates on a dairy. In the hands on segment ABS technicians spend every day identifying cows in heat on a 5000, a 3000 and a 1200 cow dairy.

*To learn more about how Reproductive Management Systems can improve your profitability, contact ABS:*

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*RMS WORKS AROUND THE WORLD ... NEWS FROM THE UK:*

> We currently manage a 350 cow unit near Tavistock, Devon. Before we started on RMS we relied on natural service. We began using RMS for several reasons, the main being the health issues associated with natural service, also the health and safety of our staff on farm and making sure that they have a better working environment. Having Jenny, our RMS technician on farm, has meant that we have a more structured approach to reproductive management and a clear team objective. Regular meetings of the vet, herdsperson, nutritionist, RMS tech and myself help to highlight issues, deal with the problem as soon as possible and hence maximise pregnancy production. By having the meetings I feel we have created a good discipline with the team and keep everyone’s focus on fertility. Good fertility leads to good moral and a happy team.

JAMES HOLLAND, Holland Farm, Devon, UK