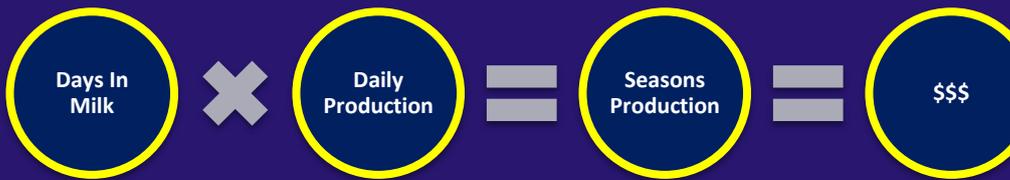


The Reproduction Newsletter!

This issue of the Vet4Farm Newsletter is dedicated entirely to Reproduction Planning. We highly recommend you work through our checklist of everything you need to consider before mating time. This is particularly important if you have traditionally used inductions as routine inductions will no longer be permissible. Remember:



Repro Planning Checklist

Metricheck & Metricure Cows

Body Condition Score Herds

Trace Elements Blood Test

Weigh Heifers

Drench heifers, 1st calvers and light body condition cows

Tail paint cows 35 days before PSM

Synchronise heifers

Treat non-cyclers 10 days before PSM

Use heat detection aids

Use "why wait" cow synchrony programme

Order Bulls and ensure you have sufficient numbers

Check submission rates on day 10 & 21 after PSM consider later calver synchrony

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Metricheck & Metricure Cows

What is it? A veterinary procedure to identify cows that have endometritis (inflammation or infection of the lining of the uterus).

What does endometritis do?

	Unaffected Cows	Endometritis Cows	Difference
3wk submission rate	80%	61%	19%
1 st service conception rate	53%	34%	19%
Final Pregnancy Rate	91%	76%	15%

What does it cost if I do nothing?

Herd Size	200	400	600	800	1000
Cost of empties	\$3600	\$7200	\$10800	\$14400	18000
Cost of delayed calving	\$655	\$1310	\$1965	\$2620	\$3275
Total Cost	\$4255	\$8510	\$12765	\$17020	\$21275

How many cows will be infected?

There is significant variation between farms with a range from 3% of the herd to 25% of the herd. We find that most farms have approximately 8% of the herd affected one month before the planned start of mating.

What can I do to manage this?

Contact Vet4Farm to book a milking for our technicians to metricheck your herd while you milk. As we check your cows we will mark any cows that have endometritis for you to draft out (either at that milking or at the following milking). Our team will then treat all the infected cows with nil milk withholding intrauterine antibiotics by guiding a small tube through the cervix and depositing the antibiotics directly into the uterus. You can expect a 93% cure rate within 14 days.

What will it cost me to check and treat them?

Herd Size	200	400	600	800	1000
Cost of Metrichecking*	\$120	\$240	\$300	\$360	\$360
Cost of Treatment	\$496	\$992	\$1488	\$1984	\$2480
Total Cost of Treatment	\$616	\$1232	\$1788	\$2344	\$2840
Benefits	\$3957	\$7914	\$11871	\$15828	\$19785
Net Benefit	\$3341	\$6682	\$11871	\$15828	\$16945
Return on Investment	542%	542%	564%	575%	597%

*\$120 per hour based on the length of milking

Can I just check the "At Risk" cows?

Yes you can, however you will miss lots of infected cows. By only metrichecking the "At Risk" cows you will typically only find 30% of the affected cows in the herd.

Can I wait until mating to find them?

You should not wait until mating. Cows should be checked 3-4 weeks (minimum 2 weeks) after they have calved to get optimum cure rates and give the uterus time to recover from the infection before insemination.

Can I just treat them with Excede LA instead of the Intrauterine Antibiotics?

Yes and No. Where the metricheck score (amount of pus) is moderate to high then treatment with Excede LA has an equivalent cure rate to the intrauterine antibiotic. When the metricheck score is low then the cure rate of Excede LA is lower than that of the intrauterine antibiotic. The price of Excede LA is also significantly higher per dose.

Sometimes we will choose to treat with Excede LA instead of the intrauterine antibiotic eg when there is a significant vaginal infection causing the high metricheck score rather than an endometritis or when the cow is systemically ill from the infection. When the cow is systemically ill it is because she has metritis (infection or inflammation of the tissue of the uterus), this is different to endometritis where only the lining of the uterus is affected. In these cases we will usually treat with anti-inflammatories in addition to the Excede LA to help manage the high temperature and toxins that are present in the circulation.

Non-Cycling Cows

The average farmer can expect 25% of his cows to have not shown a “heat” prior to the start of mating. These cows are “non-cycling cows”. The majority of these cows will eventually get pregnant without any special treatment, however treatment will get them pregnant (on average) 14-18 days earlier. This results in significant financial benefits next season. There are no on-going effects of the treatment except that cows that fail to conceive at the first insemination will have increased fertility at their next insemination. To be successful this treatment needs to start 7 days before you start mating, which means you need to tailpaint 25 days before that to identify these cows. It is not recommended to treat cows that have calved less than 35 days... we have a different treatment for these cows.

Additional Days in Milk	16
Milksolids per Day	1.5kg
\$/kg Milksolids	\$6.00
Additional Income	\$144.00
Cost of Treatment	\$44.05
Net Benefit	\$99.95 per cow*
Return on Investment	227%

*this excludes any additional value from an AB calf

Late Calver Treatment

Cows that calve within 35 days of, or after, your planned start of mating are Late Calvers. It is difficult for these animals to start cycling and conceive to AB in the short period of time that is available. Once these animals have been calved 35 days then we can treat them with the GPG programme series of injections. This programme will stimulate and synchronise ovulations whilst allowing cycling cows to come to at heat and be removed from the programme for AB. This programme costs \$24.50 per cow.

Heifer Synchrony

High performance reproduction is achieved by calving cows in good condition and having as long as possible between calving and mating. The average first calving heifer takes 10 days longer to have her first “heat” after calving than her older sisters. Coupled with this she is still partitioning energy for growth and is also now expected to produce. These animals have the highest genetic merit in the herd and will not reach their peak production until their 3rd and 4th lactations, so it makes sense for us to do everything we can to ensure their retention in the herd. By synchronising these animals for their first insemination we can significantly improve the chances of this happening and get some extra production as a bonus. There are two common approaches:

1. Synchrony with an intravaginal progesterone device
2. Double PG shots

We recommend the first option as the Double PG requires the heifer to be actively cycling to work, and research tells us that 30% of heifers are prepubertal (yet to start cycling) at the time we want to treat them.

Additional Days in Milk	10.5
Milksolids per Day	1kg
\$/kg Milksolids	\$6.00
Additional Income	\$63.00
Cost of Treatment	\$39.00
Net Benefit	\$24.00 per heifer*
Return on Investment	61%

*this excludes any additional value from an AB calf and any savings made by requiring fewer bulls

Drenching 1st Calvers for Worms

1st calving heifers are yet to develop a fully comprehensive immunity to challenge by endoparasites, and even when they do mount an immune response this requires energy. By partitioning energy towards fighting off worms they have less energy available for production, growth and reproduction. The delay in reaching their post-calving energy nadir (time when energy consumed equals energy used) causes a delay to their onset of reproductive cycling activity. By drenching these heifers at calving time or soon after calving they will start cycling 12 days earlier than without the drench. This is important as the first cycle a cow has after calving has a much lower fertility than her subsequent cycles, so the sooner she can do this the more likely she will get in calf to her first AB insemination.

We recommend drenching these heifers with a new low dose injectable drench called **Nexeprix Injection**. It contains eprinomectin and vitamin E to support the immune system. The dose is 1ml per 100kg. It has a nil milk withholding and a 14 day meat withholding. For a limited timewhen you purchase 4 x 500ml (400 cows) you will received a FREE Samsung Galaxy Tab!

Trace Element Testing

Late September/Early October is the best time to be testing your cows for mineral sufficiency for mating. We recommend blood tests for copper, selenium and B12 as these are the only minerals important to reproduction where the parameters are well established and about which we can give meaningful advice. We choose to do blood tests rather than liver biopsies to avoid negative impacts on the cow and because whilst the herd are receiving ongoing mineral supplementation, circulating levels of mineral become more physiologically relevant than liver stores.

Liver stores are very important at drying-off time when cows are going away to grazing for a period of weeks without ongoing mineral supplementation. To test these liver stores we recommend liver sampling of cull cows at the meat works. Research conducted during recent years has shown that cull cow livers are equivalent to herd cow biopsy livers when they have been grazed on the same farm with equal access to mineral supplementation.

Recent results from blood testing has revealed significant under-dosing of minerals where a farmer believed he was adding the correct rate to his water system. Blood results disagreed, and a calculation of rate of usage revealed he had only gone through 50% of the minerals he should of by this time. Injectable supplements were required to increase the levels quickly (at additional cost). So now is a good time to check that the rate you are dosing your water at is the correct rate, and that the label rate on your product of choice has not changed.



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