



Coastal Vets

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ENDOMETRITIS AND METRICHECKING

Over 90% of cows have bacteria in their uterus in the post calving period, with the number of infected animals reducing over time. Many animals will clear the infection but others don't do so in time for mating. This infection (called endometritis) affects the internal surface of the uterus and does not cause systemic disease or 'sick cows'. **Endometritis** leads to **poorer reproduction** in the mating period. Treating these cows means better reproductive performance versus cows that are left untreated.

Risk Factors for Endometritis (the "at risk" cows)

- Low body condition score at calving (<BCS 5)
- Age (heifers are more susceptible)
- Breed (Friesians more likely than Jerseys or Crossbreds)
- Retained foetal membranes (RFMs)
- Difficult calving/assisted calving
- Milk fever/metabolic disease
- Twins
- Birth to a dead calf
- Mastitis/Lameness soon after calving

Effects of Endometritis

Affected cows will take **2 to 3 weeks longer to conceive** compared with 'healthy' animal (a loss of 2 to 3 weeks milk), and have a lower chance of having a pre-mating heat and a longer time until first insemination, as well as affecting these reproductive targets:

	Endometritis	Uninfected	Difference
Submission rate at 28 days	74%	94%	20%
1 st service conception rate	34%	53%	19%
Four week in calf rate	26%	51%	25%
Six week in calf rate	32%	47%	15%
Empty at end of mating	Up to 25%	7%	Up to 18%

Identifying Endometritis cows by metrichecking

Usually by one month after calving the uterus has contracted down and may not be releasing pus anymore in spite of continued infection. These cows can be missed with a metricheck device as diagnosis is not possible; in fact the device may only pick up half of infected animals. However, it is the only method we have of quickly checking a large number of cows. This makes timing important when it comes to metrichecking cows to ensure you get the best result and most useful information:

- Who do I metricheck?
 - Of all cows that test positive one third (1/3) are from the "at risk" group, most are found in "healthy" cows – **check all of them**
- When do I metricheck?
 - **Ideally check all cows in batches between 2 and 4 weeks** (maximum 6 weeks) **after calving, and treat positive cows**
 - Or check "at risk" cows in batches 2 to 4 weeks after calving. Check the whole herd 5 weeks (4 weeks minimum) out from mating, and treat positive cows
 - Or skip metrichecking entirely, and go **straight to metricuring your at-risk cows** – some recent studies have shown this to be beneficial, as a percentage of cows with endometritis will test negative with a metricheck device (this has the downside of missing the cows in the main herd who do not fall into the at risk group)

- Last resort is to check only the “at risk” cows OR check the whole herd 5 weeks out from mating, and treat positive cows
- How are positive cows treated?
 - Treatment is irrigation of the uterus with an antibiotic (Metricure or Metriclean) – this treatment has **no milk withholding period** and a short meat withholding (4 days)
 - Farmers certified as AB technicians are able to apply the treatment themselves

Using the Metricheck device

1. Insert the cup into the vagina of the cow up to cervix
2. Scrape the cup along the floor of the vagina while withdrawing to collect mucus
3. Examine the mucus for pus (the more pus the more severe the infection)
 - No discharge or clear mucus are considered negative animals
 - Occasional flecks of material in otherwise clear mucus may not be significant and can be rechecked in one week
 - Positive animals have a variable amount of pus present, or a smelly discharge (some animals may have a bloody discharge – remember cows calved less than 2 weeks can have a normal bloody discharge)
4. Wash the cup in a warm water bucket with disinfectant between cows

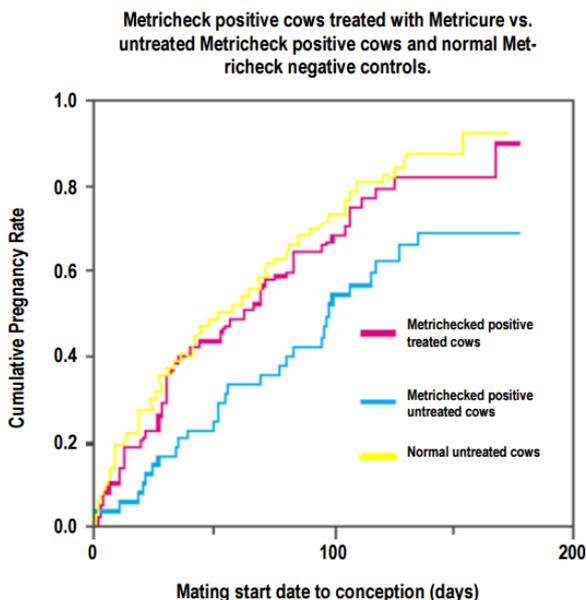


Cost of Endometritis

In a 250 cow herd with an average endometritis prevalence of 10% (range 5 to 35%) so 25 cows will have endometritis; of these:

- 5 cows (2%) will be severe enough to be empty at the end of mating, a **loss of \$1000 per cow** = \$5000
- The remaining 20 will conceive 14 to 21 days later than their normal herd mates costing **\$115 to \$165 in lost milk** = \$2300 to \$3300
- **Total cost = \$7300 to \$8300**

*The loss in value between an in calf cow (= \$1800) and an empty cow (= \$800) is \$1000. A 2 to 3 week delay in calving during August, with average production of 1.7 kgMS/cow/day at \$4.70 per kgMS means \$115 - \$165 of lost milk



Appropriate treatment can result in very significant cost benefits through:

- Extra days in milk
- Fewer empties
- More AB calves
- Less wasted semen

Video available to watch “Metricheck: Detection of Endometritis in Dairy Cows” at <http://www.youtube.com/watch?v=7zHUrFwPnQ>