2023 Repro READY

14th September 23

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Topics:

- Technology – how to maximise their value during mating - Anita
- How to best use BCS data to maximise results – Anna
- Repro management in a bad pay out year – Nathan

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Electronic monitoring and Mating

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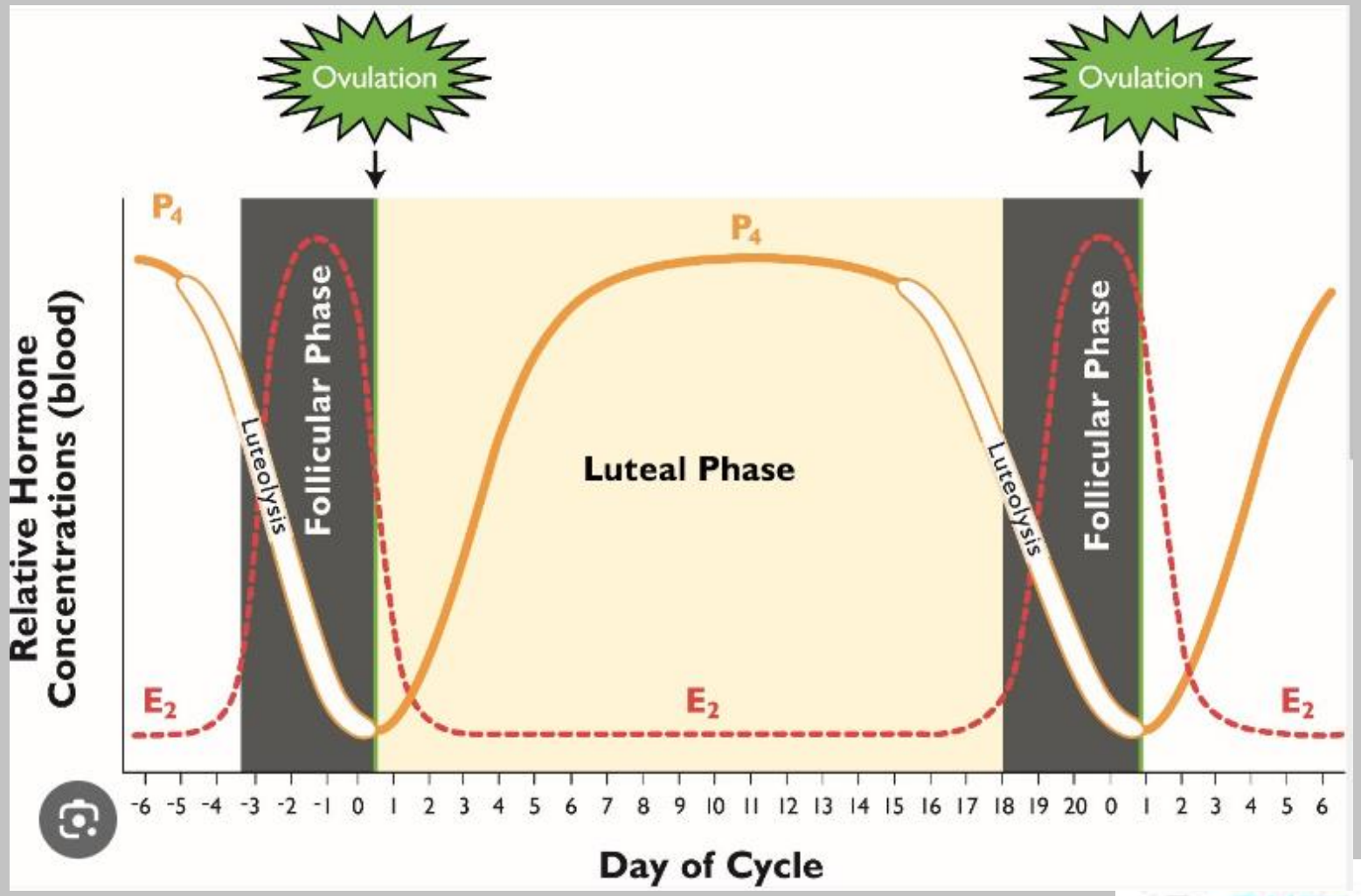
Reproductive cycle of the cow



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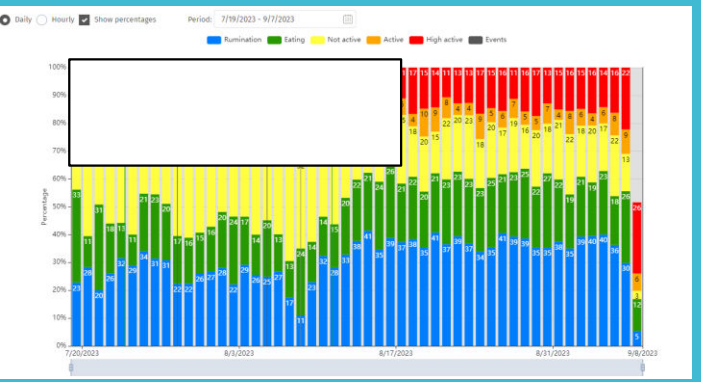
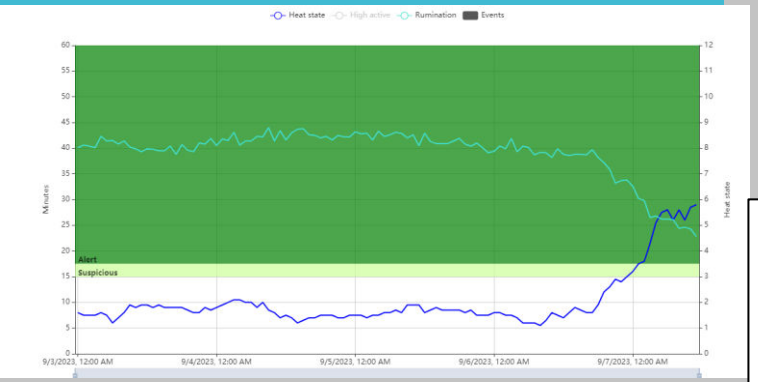
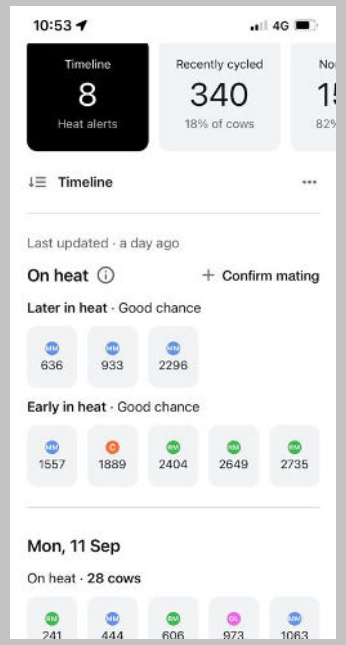
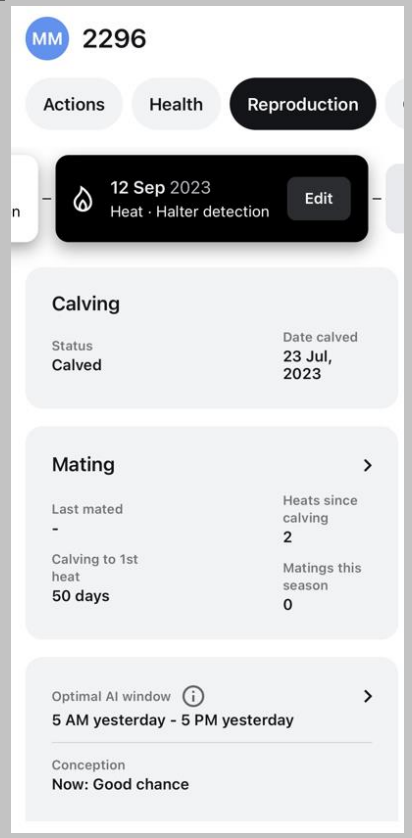
CowManager

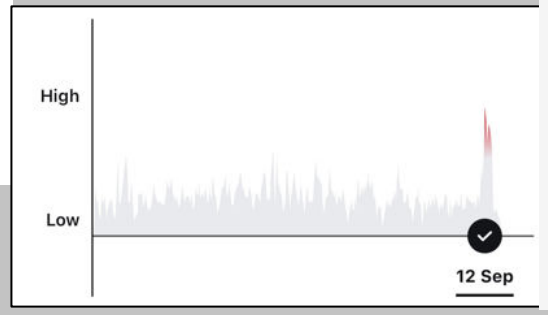


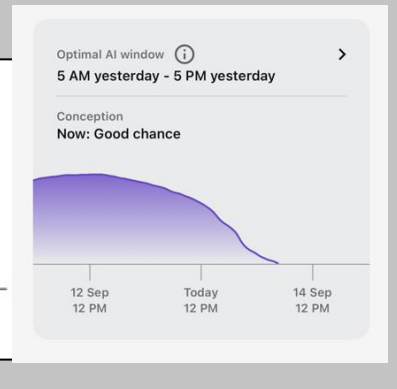


Halter

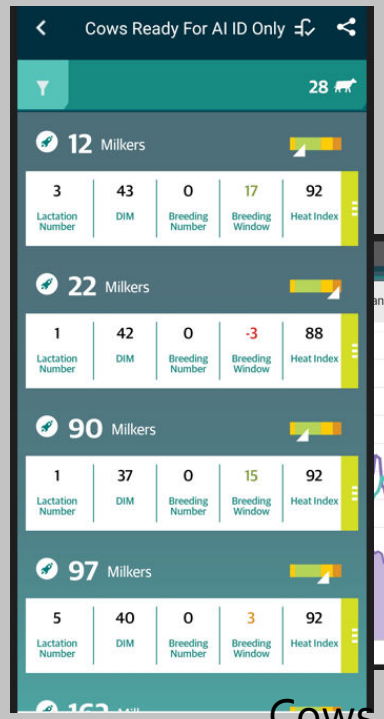


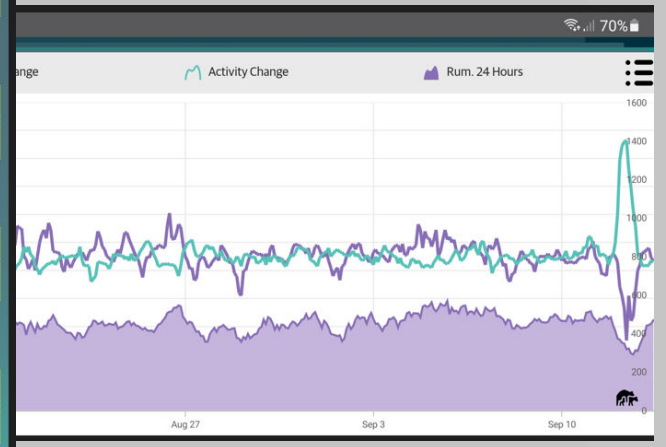






Allflex





Cows Ready for AI ID Only

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Pregnancy loss

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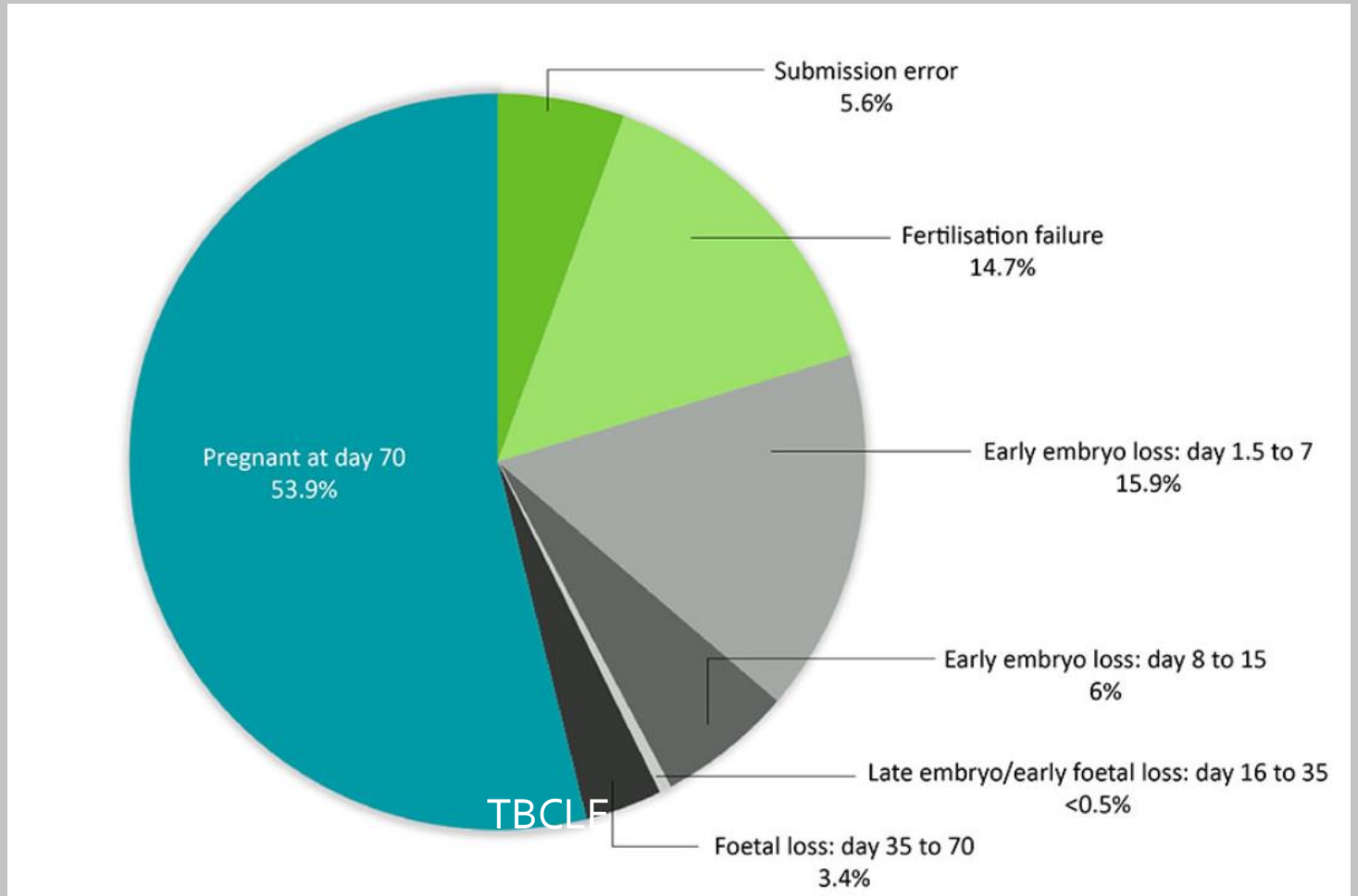

Figure 1. Causes of pregnancy failure after first insemination at key stages: green = failed to conceive; grey = conceived but lost pregnancy; blue = remaining pregnant at 70 days after insemination.

TBCLF

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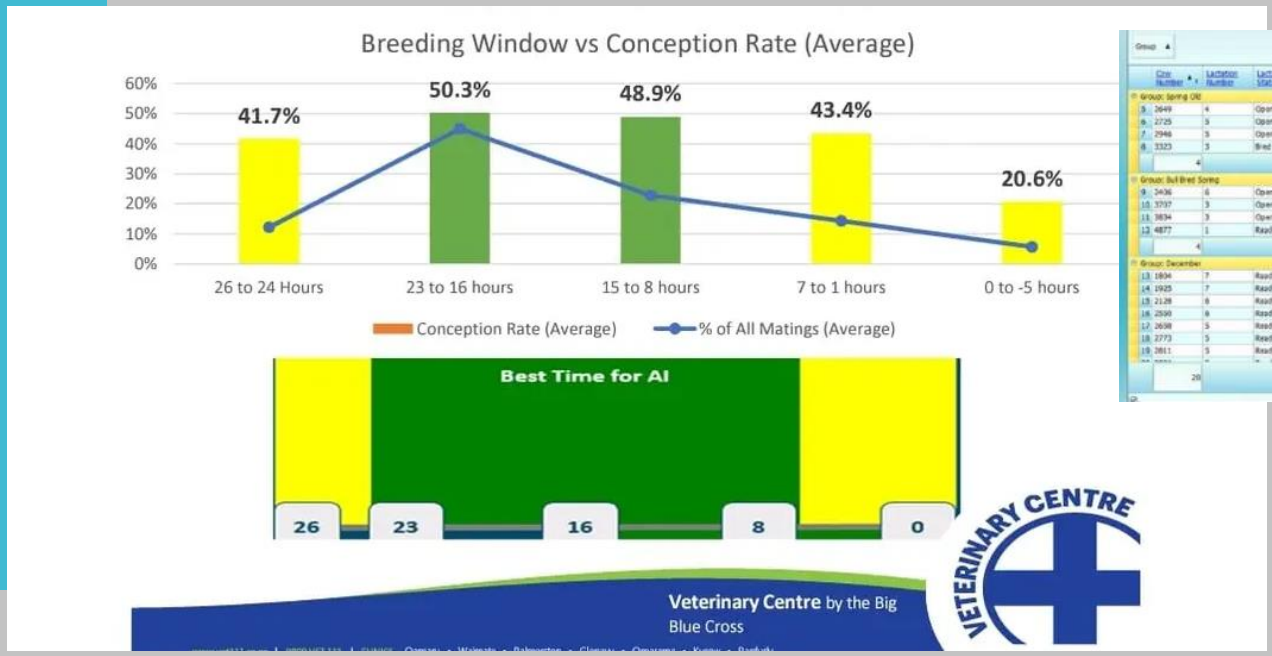
Breeding window

Timing of Insemination



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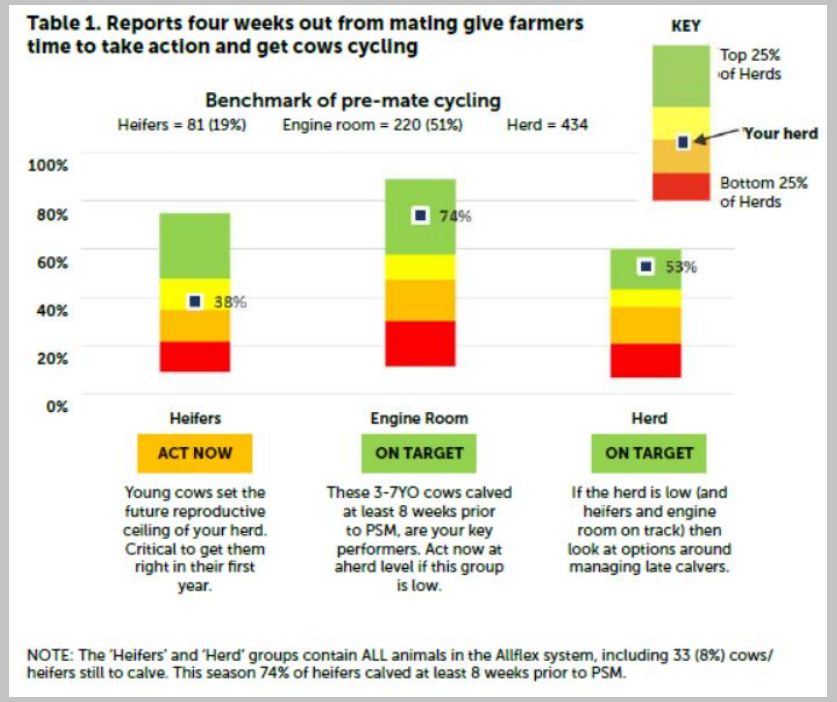
Preparation and Daily routine

- Drafting gate working
- Collars and EIDs all assigned
- All cows have a calving entered
- Mating plan, report settings, AI tech, trainer
- Ticking off draft report – are all the cows drafted/no extras?
- Check low heat index cows

Pre-mating cycling rates

Submission rates

Conception rates



- Pre-mating cycling rates: top farms
  - 75% of all cows at least 1 pre-mating heat 10 days before PSM
  - 85% of all cows at PSM
  - If <65%: pre-mating heat detection not accurate or too many non-cyclers
- Does electronic monitoring improve submission rates?
- Conception rates?

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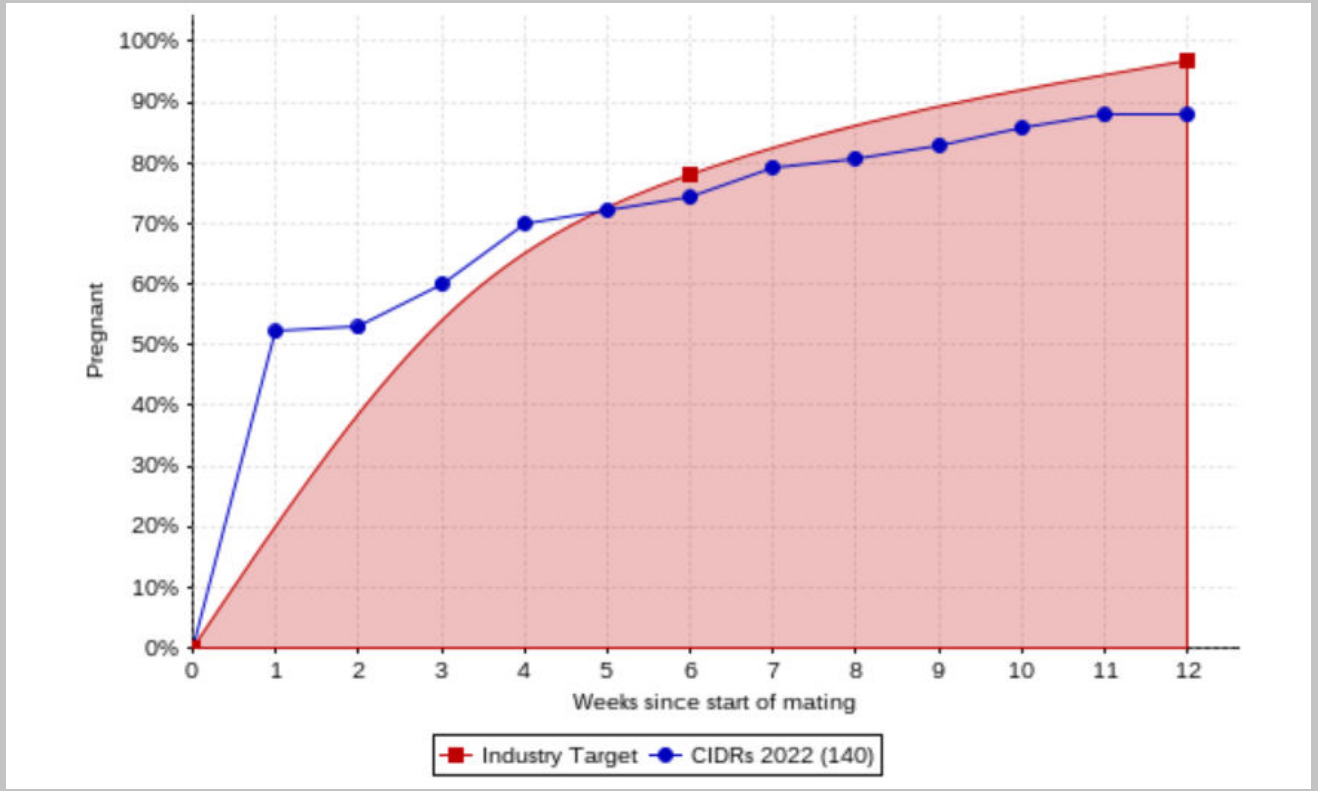
Non-cycling cows

- Anestrus Cows report
- Standard Allflex settings: 50 days in milk and no heat detected – changed to 35 days
- Potentially less cows treated but lower conception rate?
- Prepare early: mating plan, AI tech, trainer



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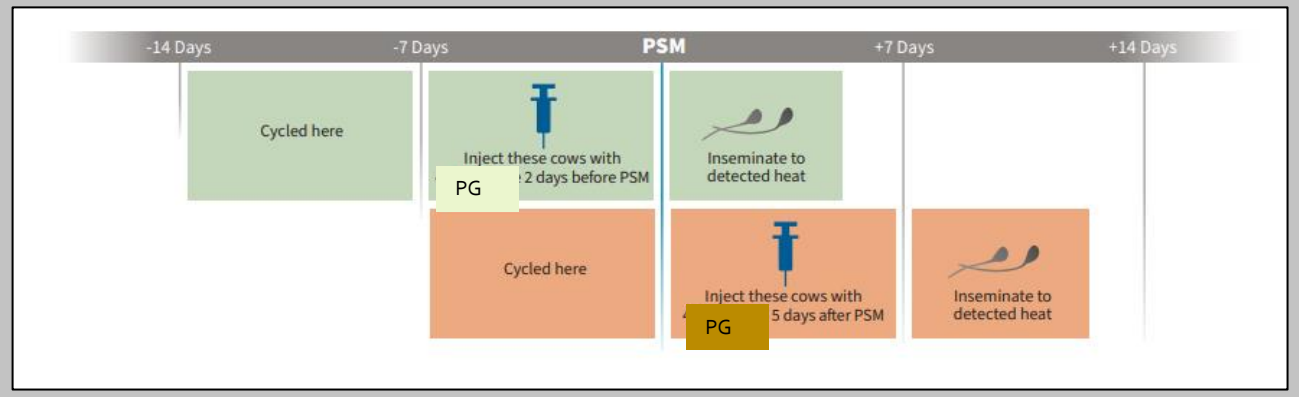
Why Wait



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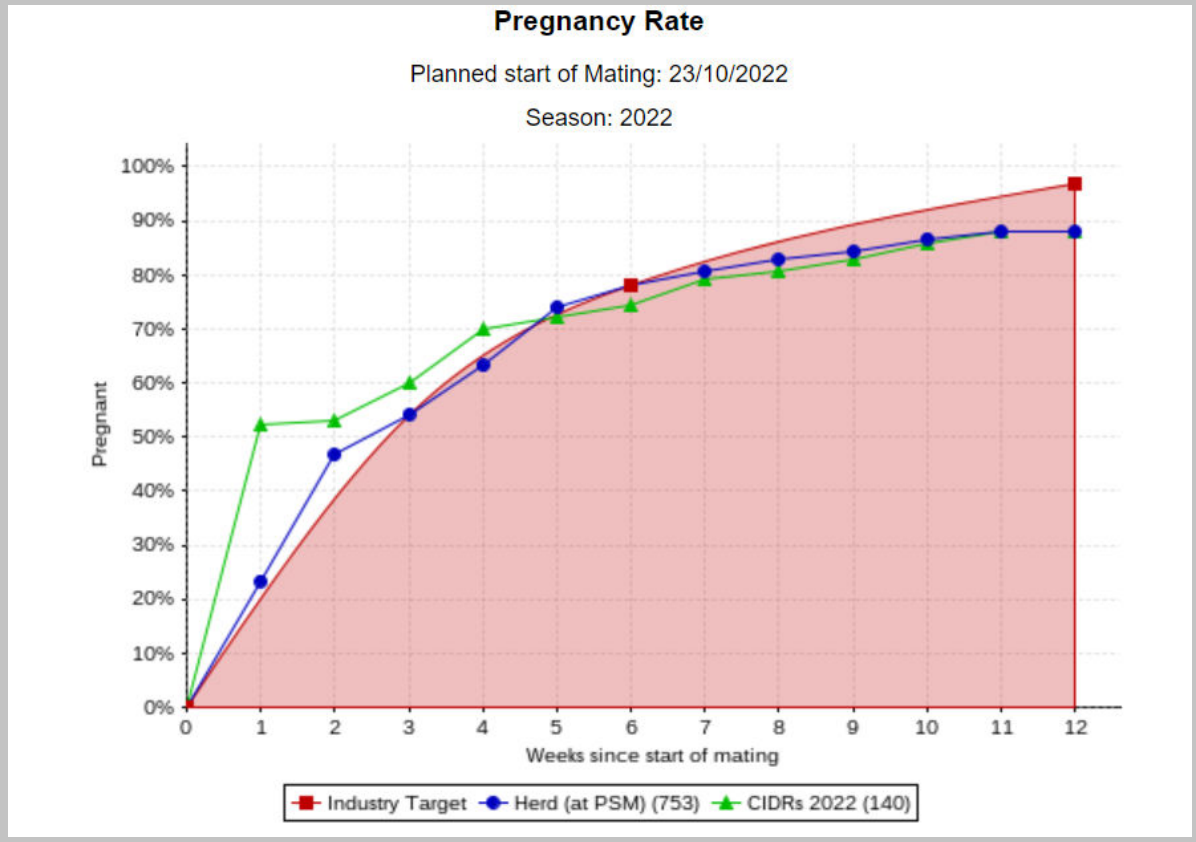

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Cows with irregular heats

- 3 or more heat events within 30 days
- This can be caused by:
  - Cows returning to cycling after calving
  - False heat events
  - Follicular cysts

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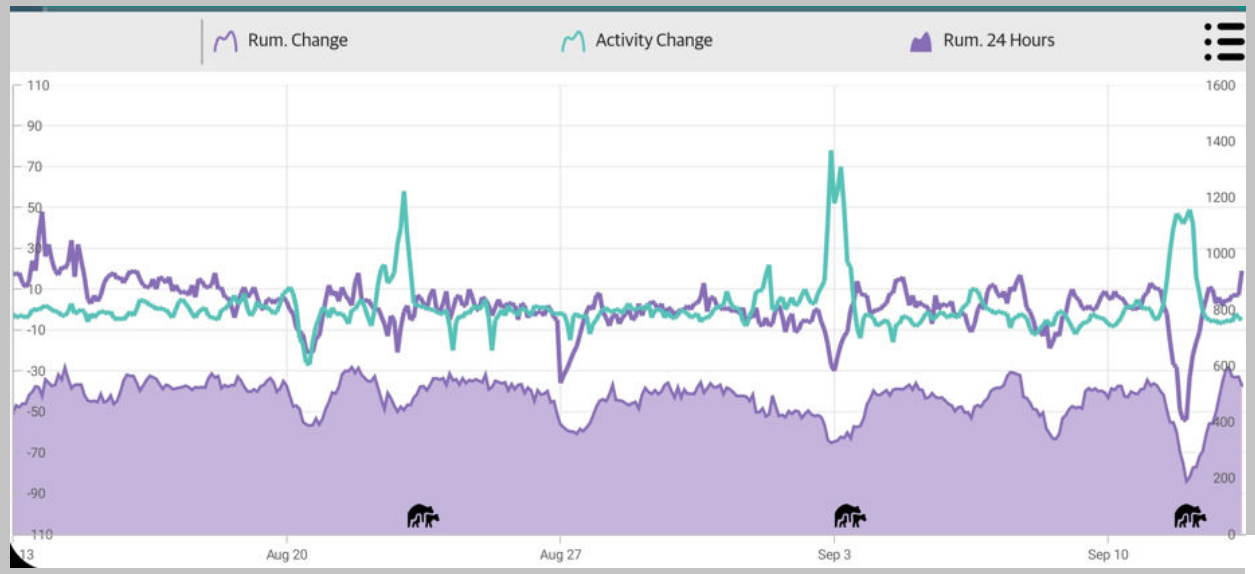

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False heats

- Too many cows on the 'Cows Ready for AI' report
- Management changes
- Check individual graphs for low heat index cows (<60 – 65)

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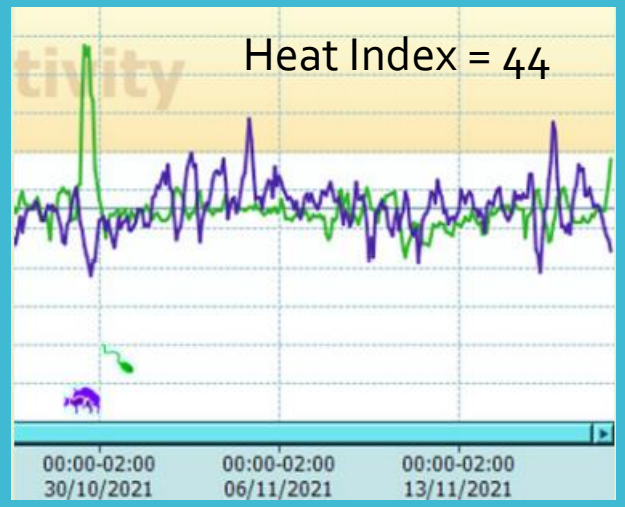
Follicular heats



- 2-10% of cows will display oestrus behaviour during pregnancy
- Usually 'silent' heats with a low heat index score
- Fluctuating oestrodiol levels
- Up to 17% increase in embryonic mortality if a pregnant cow is inseminated
- What do you do?
  - Don't mate?
  - Phantom scanning early and often
  - Cow-side pregnancy test or milk progesterone test
  - Bull mating
- What if you don't have electronic monitoring?

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Pregnancy testing

- Phantom scanning: the system cannot differentiate between a phantom cow and a pregnant cow
- Pregnancy Probability report
- Suspected Abortion report

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Elite portals

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CIDR and Why Wait reports

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Utilising BCS data

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How does BCS affect repro?

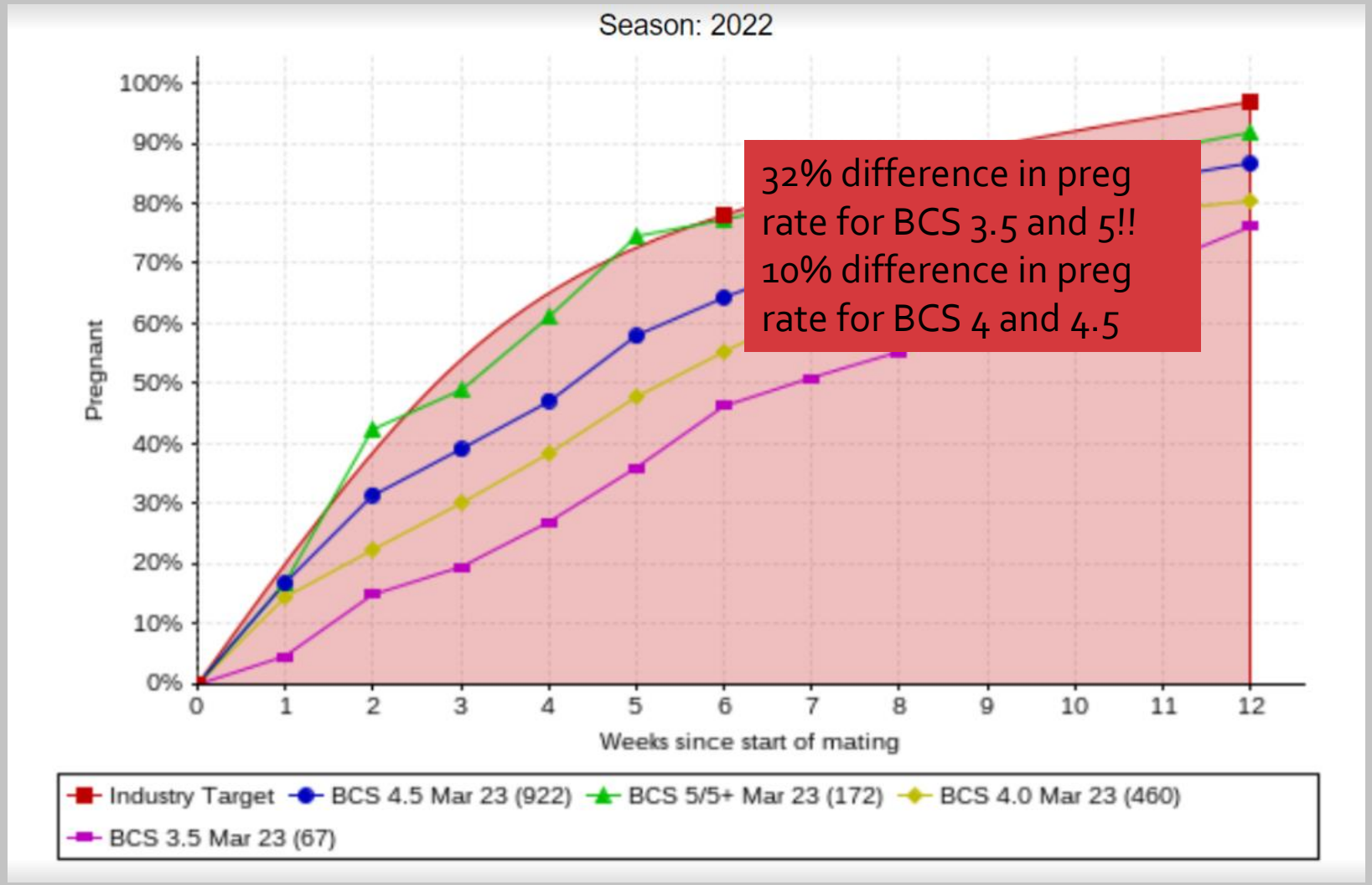
A large drop in BCS in early lactation increases the time before the cows starts cycling again and reduces the conception rate.

Body condition score prior to mating and 6-week in-calf and not-in-calf rates, by age group.

Age Group	3.5	4.0	4.5	5.0	5.5	6.0
2 year old						
6-week in-calf rate	58.0	68.9	74.3	76.4	74.3	73.2
Not-in-calf rate	20.4	13.3	10.3	9.5	11.9	12.2
3 year old						
6-week in-calf rate	64.4	69.7	72.6	74.2	72.3	65.8
Not-in-calf rate	14.7	11.9	10.6	10.1	12.4	15.1
4-8 year old						
6-week in-calf rate	61.2	66.1	67.6	67.2	62.8	60.9
Not-in-calf rate	194	16.1	15.0	15.5	17.7	21.6
Number of cows	10,823	64,914	81,284	35,116	6,025	1,552

LIC data

BCS Effect on Reproduction



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Summary: BCS

- USE the data to make management decisions to help the cows!
- There are many management options available:
  - Separate and milk OAD
  - Separate and preferential feed
  - Mark and milk OAD
- No ‘best way’ – the main q is are they gaining BCS
- Better value to BCS now and in 6 weeks time vs mid summer?

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Summary: BCS

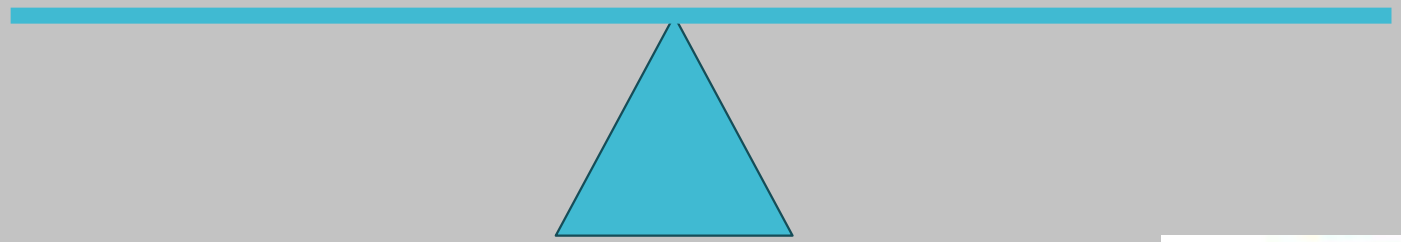
- Its not just the 3.5 cows to think about!
  - 527 cows in previous example were less than 4.5.
    - 8% difference in empty rate BCS 4.5 and BCS< 4.5 →
    - 8% of 527 = 42 cows… at $1000 difference……$42,0000 in empty cows cost alone
    - 10% difference between 4 and 4.5 at 3 week in calf rate…..
      - 11 DIM @ 1.7kg MS/cow @ $6.00 = $107/cow
      - Minus cost to feed milker vs dry cow:
      - 5kg x 40c x 11 days average = $22 per cow
        - Net benefit: $85/cow
        - (on a 1000 cow herd = $8500)
    - Assume 10% production loss when on OAD:
      - 42 days @ 0.17kg @ $6.00 = $43/cow

Summary: BCS production effect

Next season benefit of BCS gain: $85 milk + extra milk at end of lactation + reduced empty cow cost + effects of better preg rate

Production loss in short term of OAD:

$43/cow



Animal Health + Repro in a poor payout year

What do we do?

- AH spend per kg MS overall – what do we do → focus on what affects the following

- - Milk
- - BCS
- - Improving and generating pregnant cows = DIM

- In the last 13 years costs per cow at DVS don't change much …. Why?
- What should we measure?
- Core AH costs = 17/18c kg MS to 21 /22 c per kg MS

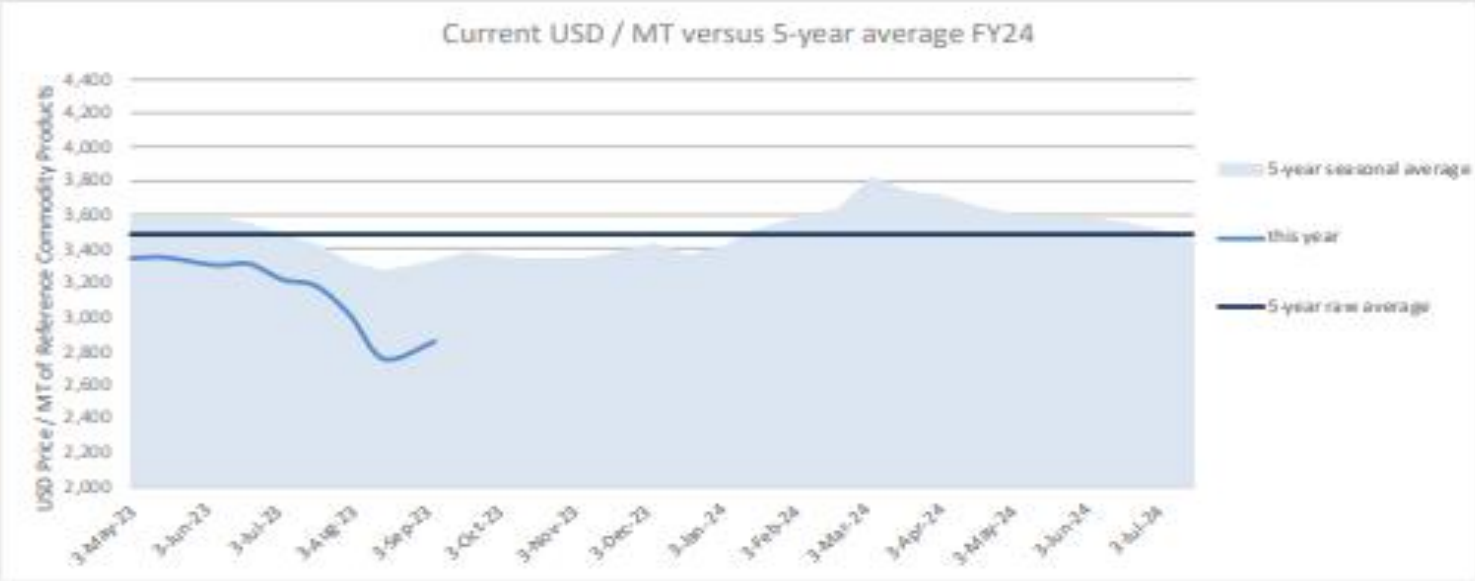
- The weather dictates what this is more than payout

Use Information →

89% of all statistics are made up on the spot … Dr Pete Alexander

The pictures…

Figure 1: USD / MT versus 5-year averages



The blue line tracks this season's USD reference commodity products' weighted price. The blue shaded area is the 5-year seasonal average USD price. The black line is the 5-year raw average USD price.

The current USD price of the reference commodity products is 18% less than the 5-year raw average and 14% less than the 5-year seasonal average.

In the last five years USD prices have been higher than the current price 91% of the time.

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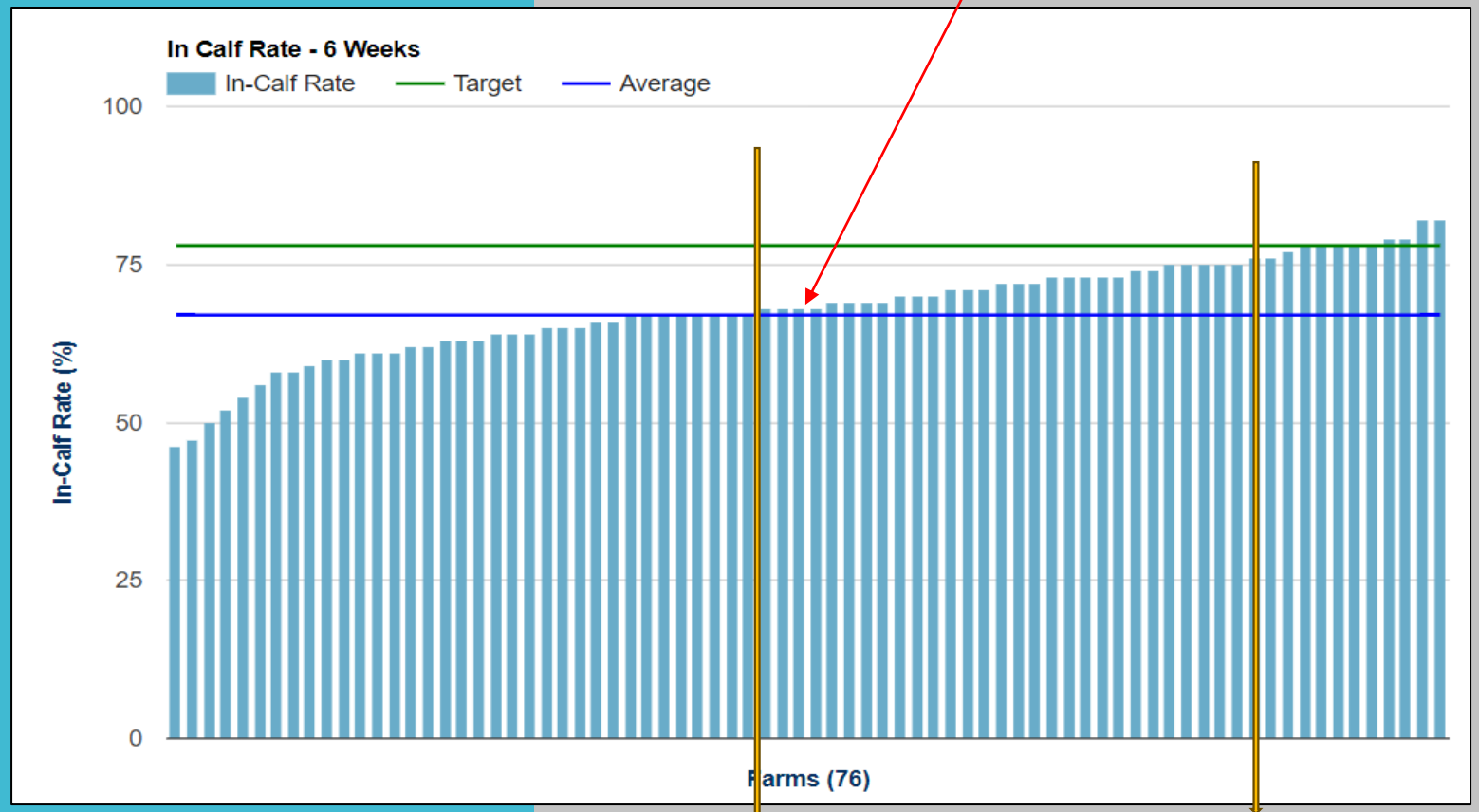
- What does this mean?
- Are we at the bottom?
- Thoughts …..

Clinic average = 67% pregnant at 6 weeks



- What are the results for the top 10% and average

Repro 2.2c/13 c kg MS

19% CIDR @ PSM

Repro 3.3c/13.25 c kg MS

17.5 % CIDR @ PSM

- AH spend per kg MS overall – what do we do focus on what affects the following

- - Milk
- - BCS
- - Improving and generating pregnant cows = DIM

Early Calvers
78 – 83% 6 weeks
8-12% MT

Mid Calvers
64 – 71% 6 weeks
17 – 23% MT

Higher BCS = earlier calving cows

Submission Rate influences Pregnancy Rate

Early DIM 2024/25 and more milk

Don't
- Reduce intervention early – be selective on cows
- Use bulls only – it only works if all other factors on farm are perfect. No one is perfect