# INTEGRATION OF TECHNOLOGIES ON FARM:

# A MEDIOCRE FARM VET'S PERSPECTIVE

Krispin Kannan Farmfirst Veterinarian BVSc MBA

# Objective

- ✓ New technologies on farm that lead to trusted advisor engagement
- ✓ Wearable technology being used to surface valuable data to enable trusted advisors to support farmers to enhance profitability, efficiency, and animal welfare
- ✓ …if you could consider both the positive and negative impacts on animal welfare of integrating new technologies on farm

farmfirst veterinary

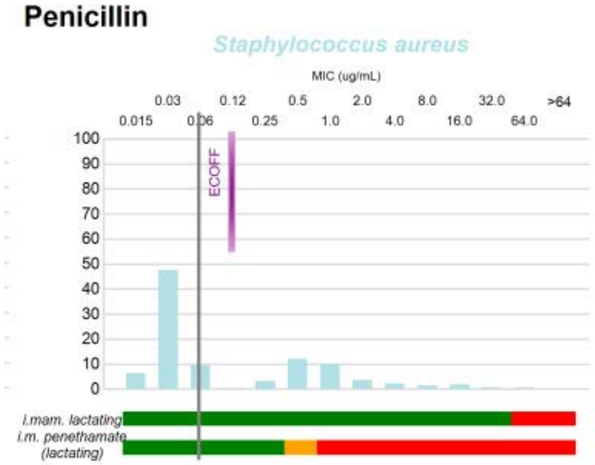
# Tag, Collars, Masks and Control

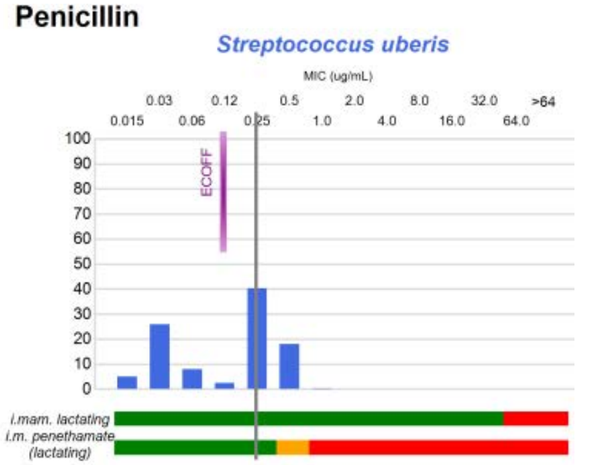

# Cameras, Testers, AI, and more


Pasture.io

AIMER

Bovonic
MASTITIS DETECTION MADE EASY



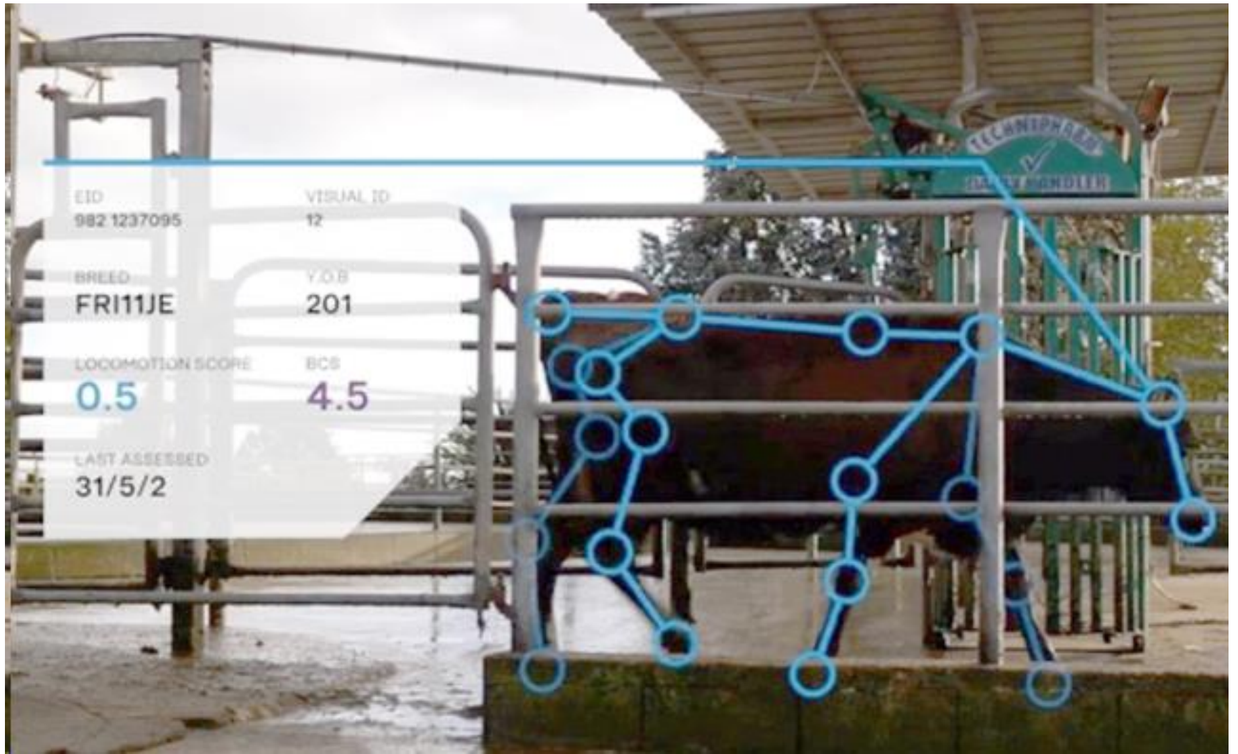




LIC®

**Milkomics® MODE Report**

Last sample date: 4/2/2025

Percentile rankings of common mastitis pathogens

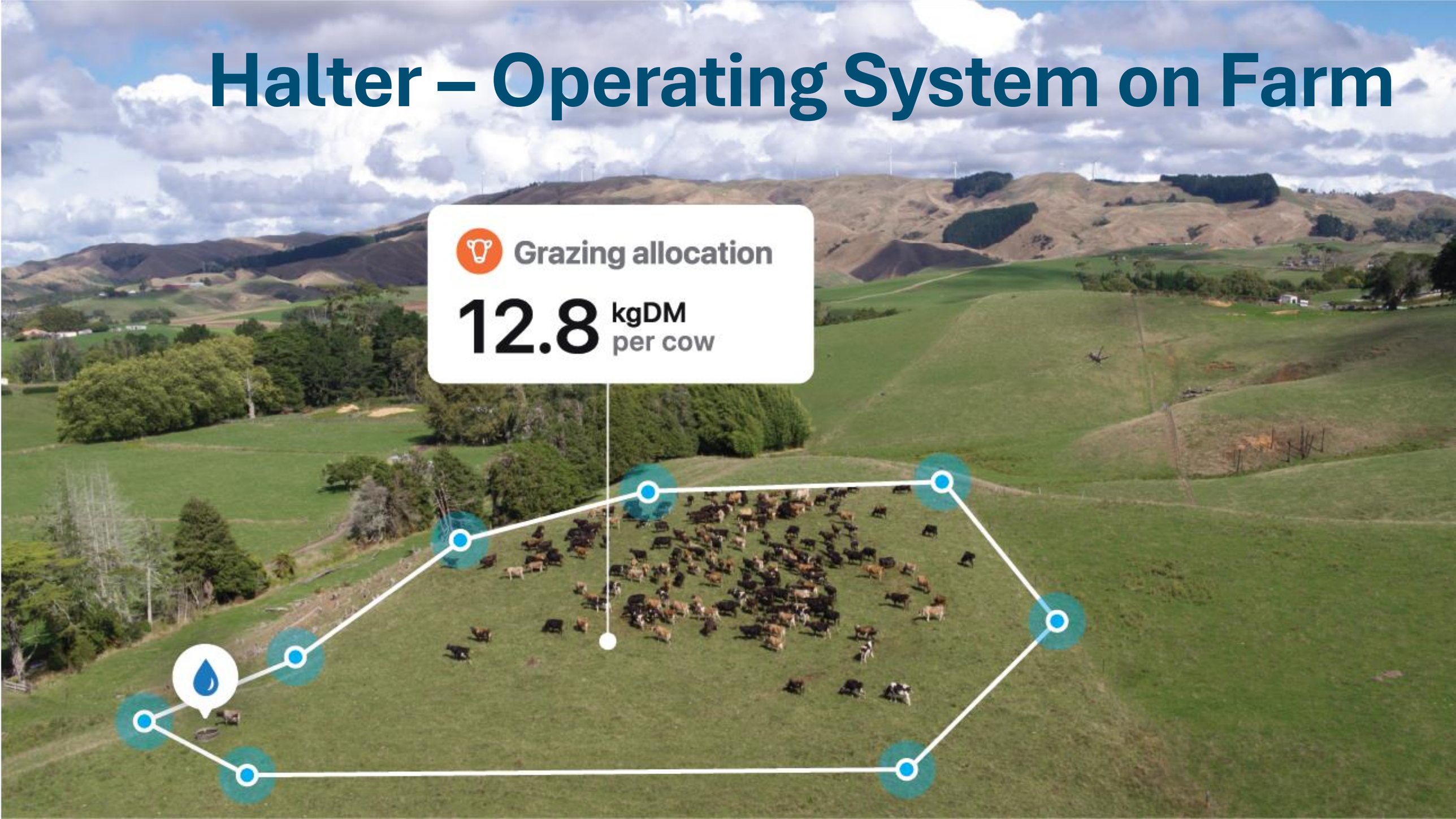



# Nutrition & Animal Management

## 1. Maximise Wellbeing 2. Minimise Disease 3. Produce Milk 4. Reproduce

"Barriers" within conventional farming practices constrain welfare, nutrition, production and reproduction

# Halter – Operating System on Farm



# Case example of farm partnership:

- ✓ Learn what drives this farmer and the farm – now and into the future
- ✓ What does great look like?
- ✓ Review where we are at right now with the data
- ✓ Settle on next steps
- ✓ Use Halter on farm reach farm goals

farmfirst veterinary

# Key drivers/goals

- ✓ Keeping capital investment on farm low
- ✓ Capital value of stock is important to retain
- ✓ Keeping it simple is key, so that there is time to do other things like work on an epic car with son and do some building
- ✓ The farm being a retirement fund is also the goal
- ✓ Feeding cows well and animal health has always been a priority
- ✓ Working on 5-year average of 100,000 MS

farmfirst veterinary

# Key Summary of Findings - August

- ✓ Longer days to first heat, inconsistent transition recovery graphs based on cow behavior – indicate room for improvement over the transition period. Better transitioned cows, have quicker days to first heat
- ✓ Low premating cycling rates and low/inconsistent grazing and ruminating behavior pre-mating (-4 weeks to PSM) – indicate room for improvement in feeding strategies in early days in milk to get more cows cycling before mating
- ✓ Lower NRR and CR in the 1st three weeks attributed to cows being mated to their 1st and 2nd heats, but doubled down with dropping protein % and flatting of the MS/day – indicating room for improvement in meeting energy demand but also making sure most cows have had their 1st cycle before mating

"Data driven insight"

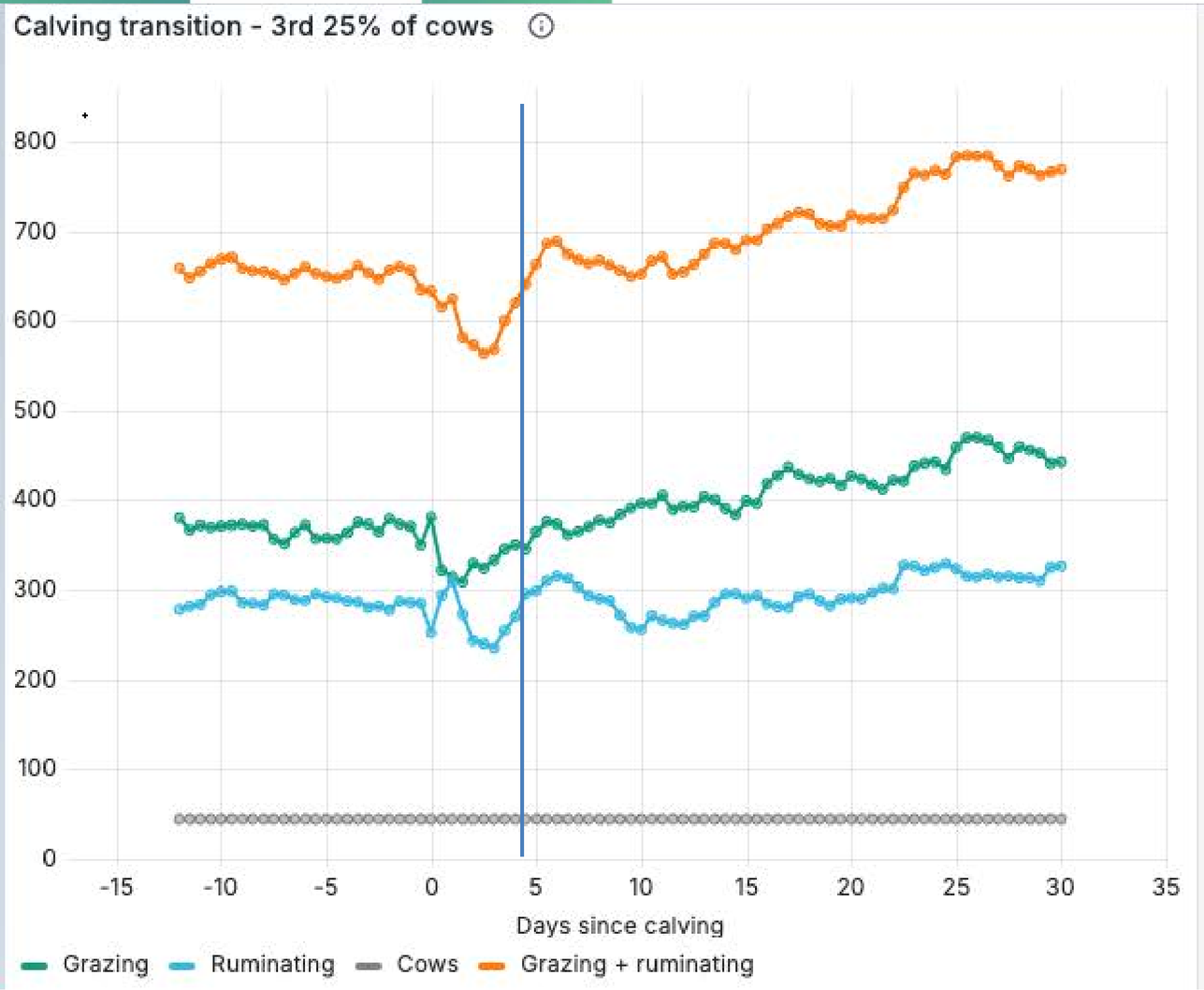
farmfirst veterinary

# Key Actions

- ✓ Feed Blend breakdown to be sent to Halter CS Rep to inputted into Halter to track MJME offered and utilized and for a discussion on what the best diet composition is to meet the farm and the cow's needs
- ✓ Premating mineral testing - liver biopsies (copper) and bloods (selenium and B12). Haven't been done in a while but need to confirm this is not impacting mating results
- ✓ Forecasting Halter Tool – Halter CS Rep & Farmer to forecast what would happen if the Milkers went from 80m2 to 100m2 and the young cows went from 80m2 to 120m2. Will we be in a hole and if so when and what do we need to do? All of this to feed cows to their requirements and get them cycling earlier before PSM. Currently tracking behind.
- ✓ Check-in with Halter CS Rep & Farmer on the 20th of September at 9am to review cycling, milk graphs, cow behavior and trace element tests
- ✓ A big question around reimaging how to get feeding 'fully covered' in a low input system to match balance date with cow requirements. This planning starts at dry off possibly – it's a system thinking change – further discussion needed

"Partnerships, Halter at the center & Insights and Action"

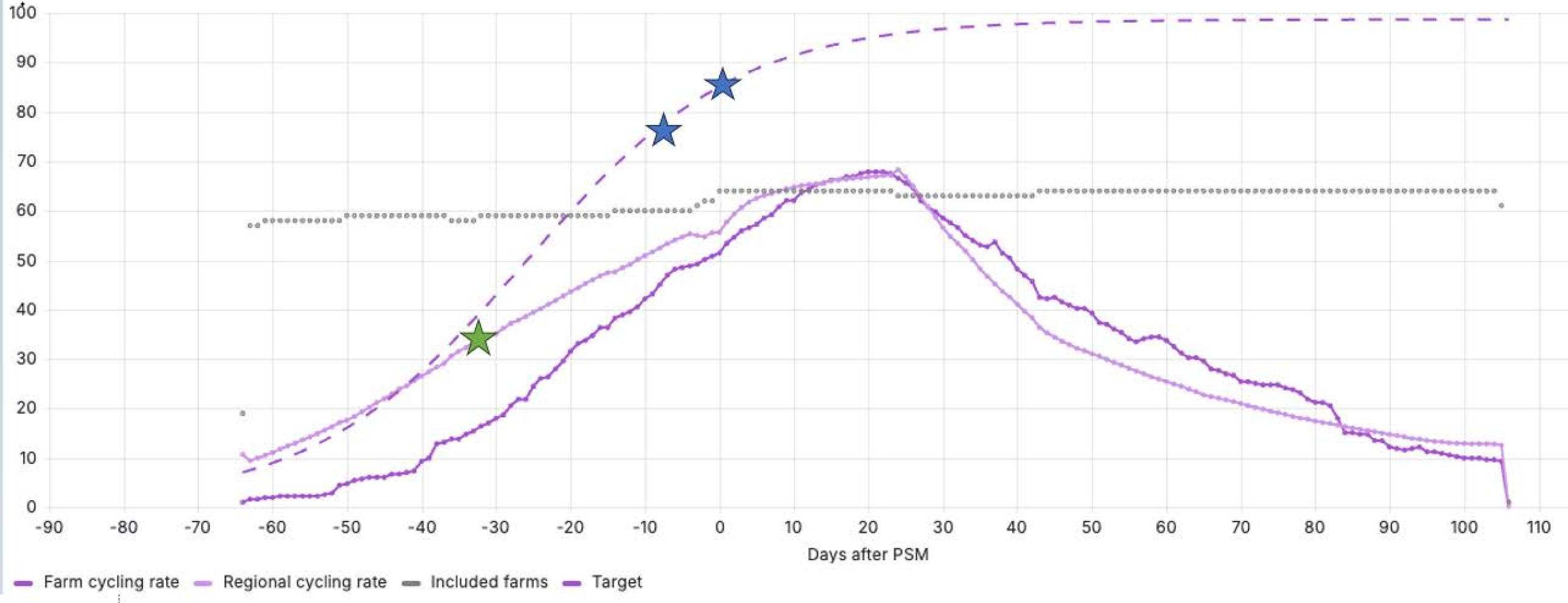
farmfirst veterinary





farmfirst veterinary

Cycling rate (Malrose (F-00639))




farmfirst veterinary

| | In-calf rate | | | | |
|---|---|---|---|---|---|
| | 3 Weeks | 6 Weeks | 9 Weeks | 9+ Weeks | Not In-Calf Rate |
| Spring 2024 | 50% | 75% | 86% | 90% | 10% |
| Spring 2023 | 37% | 59% | 72% | 78% | 22% |
| Spring 2022 | 56% | 67% | 79% | 85% | 15% |
| Spring 2021 | 53% | 84% | 87% | 87% | 13% |

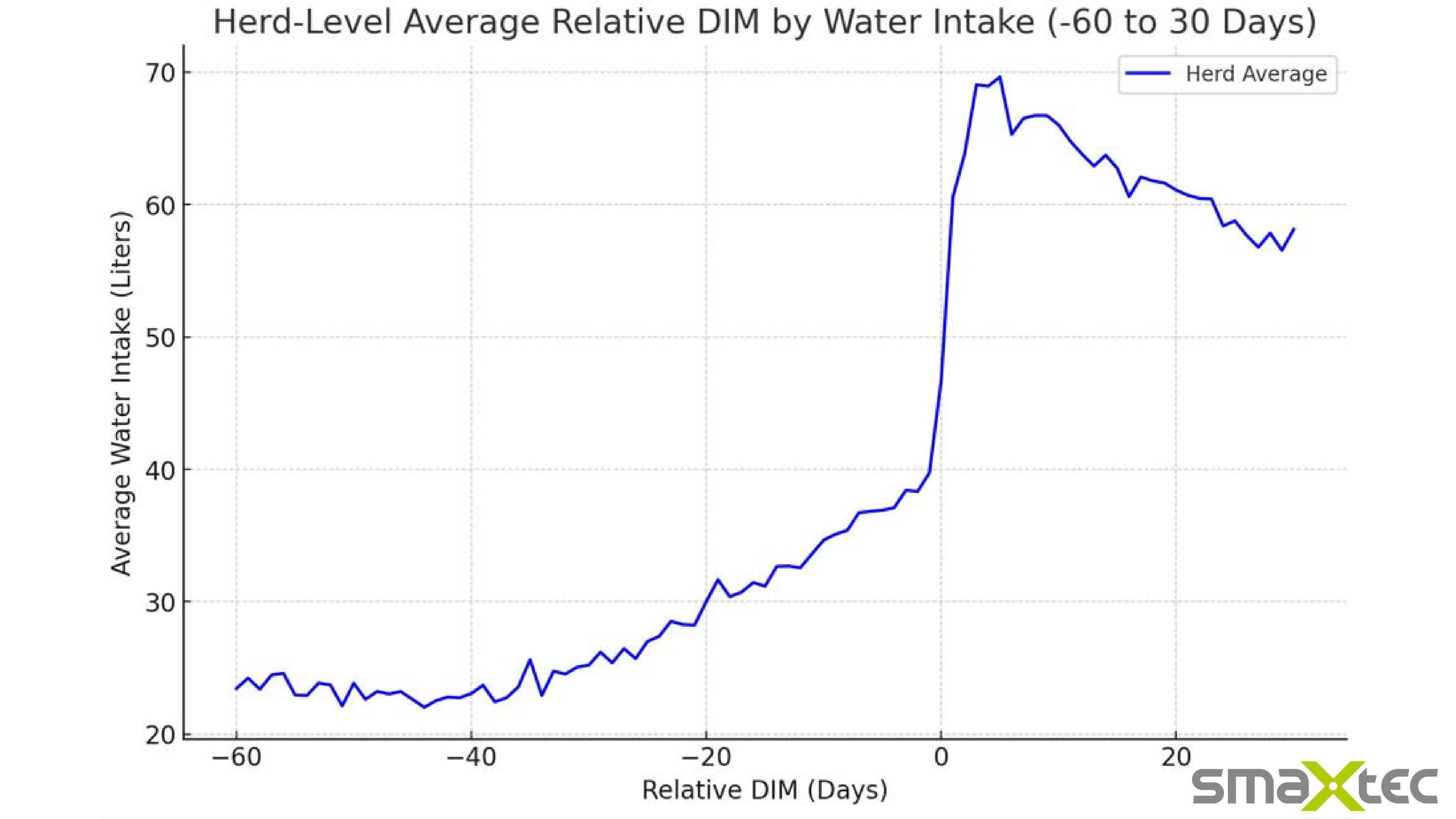
## In-Calf Rates for Whole Herd Breakdown

Print

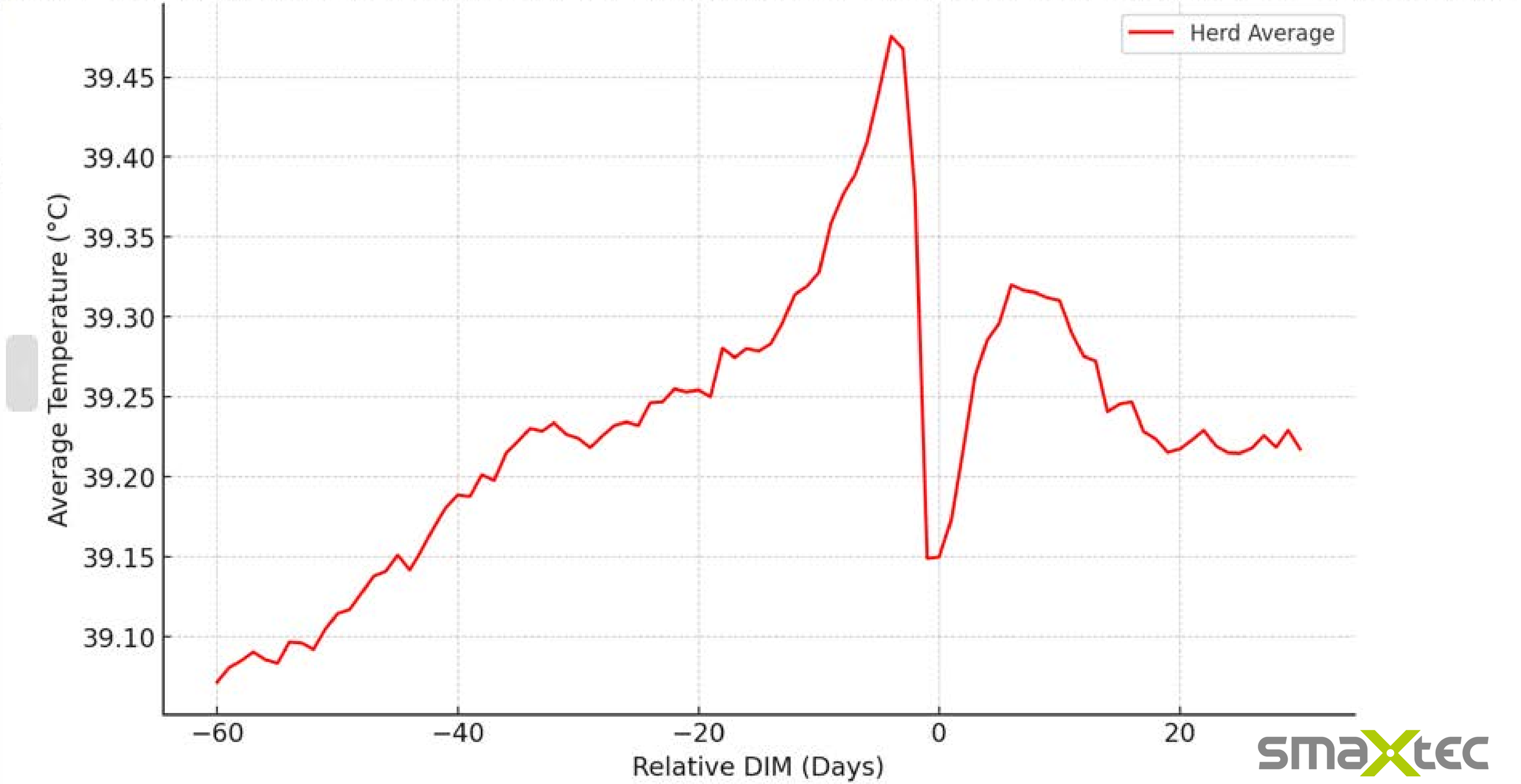
| | In-Calf Aged | In-Calf Non-Aged | Empty | Doubtful | Pregnancy Loss | Removed with no PD | No removal or PD | Total Analysed |
|---|---|---|---|---|---|---|---|---|
| Animal Count | 28 | 186 | 22 | 1 | 1 | 2 | 2 | 242 |
| Percent Analysed | 12% | 77% | 9% | <1% | <1% | <1% | <1% | 100% |

- ✓ Individual animals seen – splitting of mobs early, running of multiple mobs
- ✓ Tracking of animal requirements to KPI responses – behavioral, production, reproduction tool
- ✓ Feed monitoring and management tool
- ✓ Forecasting tool
- ✓ Engagement and refreshment tool
- ✓ Cow Welfare Impact tool for vet
- ✓ Adding to knowledge to drive action – water consumption, pH, temperature

farmfirst veterinary


Herd-Level Average Relative DIM by Water Intake (-60 to 30 Days)
Herd Average
Average Water Intake (Liters)
70
60
50
40
30
20
−60
−40
−20
0
20
Relative DIM (Days)

# Herd-Level Average Relative DIM by Temperature Without Drink Cycles (-60 to 30 Days)



farmfirst

veterinary

**"I have no special talent. I am only passionately curious."** — *Albert Einstein*