



## IMPROVING FERTILITY INDICATORS THROUGH THE AHV PROACTIVE UTERINE HEALTH & FERTILITY PROGRAM

### KEY FINDINGS

Cows given AHV **StartLac**, **Aspi** and **Metri** Tablet (SLAM) showed:

- A **34 day** reduction in open days, resulting in a 34 day reduction in calving interval
- A reduction of **0.56** inseminations per fertilised cow
- A **17%** increase in first conception rates

Compared to the control group.

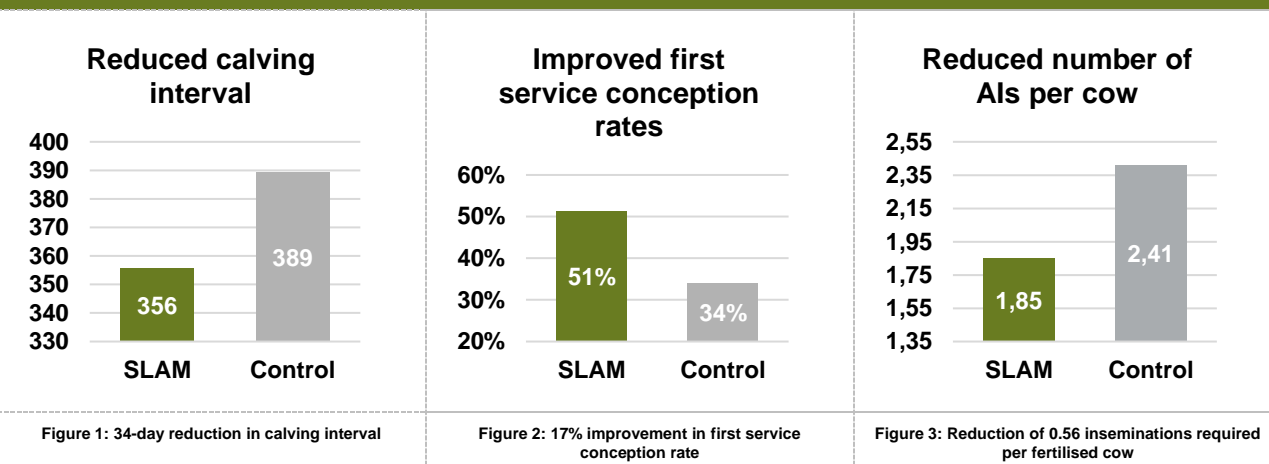
This resulted in a return on investment of **€117.82** per cow.

### INTRODUCTION

Reproduction is a crucial aspect of the profitability of any dairy farming system. Numerous studies demonstrate the negative impact of postpartum uterine involution problems on the resumption of the reproductive cycle and on milk performance, up to a reduction of 1.03 kg/cow/day (Quintela Arias et al. 2018; Lin et al. 2021).

Uterine health issues are a common cause of infertility in dairy cows, delaying the onset of cyclical ovarian activity after parturition, prolonging luteal phases and reducing conception rates (Sheldon et al. 2008). Bacterial infiltrations are detected in the uterus of 80-90% of dairy cows two days after calving, and up to 56% have subclinical hypocalcaemia. (Verhaert 2014). Both subclinical hypocalcaemia and severe uterine health issues delay uterine contraction and diameter reduction during the puerperal period (HEPPELMANN et al. 2015).

### RESULTS



### TRIAL FARM INFORMATION

Trial carried out on 2 farms, one in Maine-et-Loire and the other in Manche (France)

Date of trial:	2023-2024	
Farm size:	Operation 1 with 125 dairy cows, operation 2 with 180 dairy cows	
Average milk production (per day/cow):	40 kg	
Average milk values:	Fat: 42.6	Protein: 34.4
Types of milking system:	Farm 1 with robots, Farm 2 with milking parlour	
Nutrition:	Semi-complete rations	

### TRIAL PROTOCOL

## TRIAL INFORMATION SHEET



On farm 1, the trial compared cows that calved between 18/04/2023 and 01/11/2023, making up the control group, with cows that calved between 18/04/2024 and 01/11/2024, making up the AHV group.

For farm 2, the trial ran from November 2023 to March 2024, with the SLAM protocol given to every second calving during this period, making up the AHV group. The other half of the calvings formed the control group.

The animals were selected for the trial on the basis of the following criteria: **number of lactations, calving date.**

**AHV group:**

Number of animals: 74

Products received: AHV StartLac Tablet, Aspi Tablet, Metri Tablet

Timing application: applied at the same time, within hours of calving

**Control group:**

Number of animals: 88

Treatment received: No treatment

Total number of animals in the trial: 162

Data analysed:

- Number of inseminations until fertilisation
- Timing of inseminations, correlated with calving dates

## RETURN ON INVESTMENT

**Costs:**

- 2 StartLac Tablets: €11
- Aspi Tablet: €11.50
- Metri Tablet: €12.10

**Total investment cost: €34.60 per cow**

**Estimated costs :**

- Average cost per insemination: **€31.75** (Blanken, 2020)
- Average cost per additional day open: **€3.96** (Hudson et al. 2010)

**Benefits:**

- Savings on the number of inseminations: **€17.78**
- Savings reduction open days: **€134.64**

**Total savings: € 152.42 per cow**

**Total return on investment: 3.4**

## RECOMMENDATIONS - AHV PROTOCOL

AHV recommends applying StartLac, Aspi and Metri Tablet to cows after calving as part of the Uterine Health & Fertility Program.

## BIBLIOGRAPHY

- Blanken, K., De Buissonje, F., Evers, A., Ouweltjes, W., Verkaik, J., Vermeij, I., & Wemmenhove, H. (2020). Kwantitatieve Informatie Veehouderij 2020-2021 (Quantitative Information Livestock Husbandry). Wageningen Livestock Research, Wageningen.
- David, Grégoire, Giovanna Croxatto Vega, Joshua Sohn, Anna Ekman Nilsson, Arnaud Hélias, Nathalie Gontard, and Hélène Angellier-Coussy. 2021. "Using Life Cycle Assessment to Quantify the Environmental Benefit of Upcycling Vine Shoots as Fillers in Biocomposite Packaging Materials." *The International Journal of Life Cycle Assessment* 26 (4): 738-52. <https://doi.org/10.1007/s11367-020-01824-7>.
- HEPPELMANN, Maïke, Karoline KRACH, Lars KRUEGER, Philipp BENZ, Kathrin HERZOG, Marion PIECHOTTA, Martina HOEDEMAEKER, and Heinrich BOLLWEIN. 2015. "The effect of metritis and subclinical hypocalcemia on uterine involution in dairy cows evaluated by sonomicrometry". *The Journal of Reproduction and Development* 61 (6): 565-69. <https://doi.org/10.1262/jrd.2015-015>.
- Hudson, Chris, James Breen, Andrew Bradley, and Martin Green. 2010. "Fertility in UK dairy Herds: Preliminary Findings Of A Large-Scale Study". *Cattle Practice* 18 (October): 89-94.
- Lin, Yuxin, Hongzhen Yang, Muhammad Jamil Ahmad, Yuze Yang, Wucai Yang, Hasan Riaz, Adili Abulaiti, Shujun Zhang, Liguang Yang, and Guohua Hua. 2021. "Postpartum Uterine Involution and Embryonic Development Pattern in Chinese Holstein Dairy Cows". *Frontiers in Veterinary Science* 7 (January). <https://doi.org/10.3389/fvets.2020.604729>.
- Quintela Arias, Luis, Marcos Fernández, J.J. Becerra, Mónica López, and Pedro García Herradón. 2018. "Subclinical Endometritis in Dairy Cattle". In . <https://doi.org/10.5772/intechopen.80229>.
- Sheldon, I. Martin, Erin J. Williams, Aleisha N. A. Miller, Deborah M. Nash, and Shan Herath. 2008. "Uterine diseases in cattle after parturition. *The Veterinary Journal, Special Issue: Production Diseases of the Transition Cow*, 176 (1): 115-21. <https://doi.org/10.1016/j.tvjl.2007.12.031>.
- Verhaert, Fien. 2014. "RISICOFACTOREN VOOR KLINISCHE VERSUS SUBKLINISCHE ENDOMETRITIS BIJ HOOGPRODUCTIEF MELKVEE".

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