

DENMARK

A TEMPLATE FOR HANDLING STREPTOCOCCUS AGALACTIAE AT THE HERD LEVEL

DO YOU ALSO STRUGGLE WITH HANDLING *S. AGALACTIAE* IN DAIRY HERDS?

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THE FIGHT AGAINST *S. AGALACTIAE*

The eradication of *Streptococcus agalactiae* in the dairy sector, due to the zoonotic aspect and negative impact on udder health and milk quality, has been a cornerstone in improving milk quality for decades in the industrialized world. Successfully in many countries, it leading to a low prevalence at the herd level. There has been good support, mainly in the English-speaking countries with the five, and later the National Mastitis Council (NMC) 10-point plan, which predominantly aimed at contagious mastitis with blanket dry cow therapy, post-milking teat disinfection, and culling chronically infected animals. However, this disease can challenge us with the introduction of selective dry cow therapy and the increase in herd size, and human *S. agalactiae* strings.

THE TOOLS AT THE DISPOSAL OF VETERINARIANS AND CONSULTANTS

The project aims to develop recommendations in management, testing, treatment, and biosecurity for herd veterinarians and consultants in handling *S. agalactiae* based on the preference of the dairy farmer. He can accept being positive for *S. agalactiae* and then the intervention is adjusted for this; alternatively, he wants to eradicate, and needs support for this.

THE THREE WORK PACKAGES

Work Package 1

- Analysis of historical bulk milk tank data
- Collection and analysis of bulk milk tank samples
- Comparison of cell count, germ count, and variation in Ct value from PCR test

Work Package 2

- Analysis of risk factors for infection based on data from the cattle database
- Analysis of factors that affect the chance of being free of *S. agalactiae*
- Telephone interviews of farmers who have eradicated *S. agalactiae* within the past year

Work Package 3

- Development and testing of a prototype for an eradication plan
- The plan is tested in pilot herds to get the content aligned with the end-user
- Workshop with stakeholders for the development of masters for remediation

RAISING AWARENESS AS A WAY TO ERADICATE

The project is in the initial phase, where we will provide meetings and on-farm workshops for dairy practitioners to increase focus on *S. agalactiae*. Here, the primary purpose is to create awareness of the problem and motivate the herd veterinarian to provide the appropriate knowledge to the dairy farmer. Because we do not have the opportunity to rely heavily on blanket dry cow therapy and test and cull for economic reasons, we need to consider another approach for eradication. Also, the impact of the human strings of *S. agalactiae* gives another dimension to eradication. We plan to measure the success with a follow-up questionnaire, asking the participating veterinarians about their perception of the manual and challenges in remediation in the herd.

STØTTET AF

Mælkeafgiftsfonden

LIMITATIONS PUSH TOWARDS SMARTER WORK

Dairy farms in Denmark have a mandatory herd health contract if the cow number is > 100 cows, and our average is 260 in 2024. With a prevalence of 12.4 % positive *S. agalactiae* herds, the average herd veterinarian usually got a limited number of positive herds within their client base. We will provide this manual to the dairy practitioners, built from research and experience with handling *S. agalactiae* herds, with the purpose of support and to make them feel more confident in the dialogue with the dairy farmer. When you got limitations in the use of antimicrobials and endless culling, you need to work smarter!

A WORK NEVER COMPLETE

Our analysis has identified several risk factors we want to address when we share the manual. Also, we plan an interview with the dairy farms that changed the status and eradicated *S. agalactiae* from the herd, to gain insight into the process obstacles and practical procedures at the dairy farm. Our surveillance at the bulk tank level also needs reconsideration, as the proportion of herds changing status in the national program based on individual positive animals in herds negative on bulk milk tank is unacceptable. Next, whole genome sequencing is added, and the herds are divided into categories according to the source of infection – cows or humans.

REFERENCES

1. Byskov, M. V., Fare, M., Buckle, M. & Svennæsen, L. (2023). Detection of *Streptococcus agalactiae* in Danish Dairy Herds by Different Methods. (Manuscript in preparation)