



# ANNUAL CONFERENCE

# WARSAW 2019

Faculty of Veterinary Medicine  
Warsaw University of Life Sciences – SGGW  
Warsaw, 11.05.2019

# Conference organizers



European College of Small Ruminant Health Management



Faculty of Veterinary Medicine  
Warsaw University of Life Sciences – SGGW



Polish Society of Veterinary Sciences – PTNW



International Goat Association



Warsaw Chamber of Veterinary Surgeons

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11:20 – 12:50 SESSION II

moderator – Dr. Katja Voigt

11:20	INCIDENCE, POSSIBLE RISK FACTORS AND THERAPIES FOR PSEUDOPREGNANCY ON DUTCH DAIRY GOAT FARMS: A CROSS-SECTIONAL STUDY	René Van den Brom
11:30	REPRODUCTIVE MANAGEMENT OF INTENSIVELY REARED DAIRY EWES IN GREECE	Sofia Termatzidou
11:40	SOMATIC CELL COUNT AS A TOOL TO CONTROL SUBCLINICAL MASTITIS IN SERRANA GOATS	Hélder Quintas
11:50	MILK AMYLOID A AS A TOOL TO MONITORING UDDER HEALTH IN SERRANA GOATS	Hélder Quintas
12:00	IMPACT OF HARD TICKS ( <i>IXODIDAE</i> ) INFESTATION ON MILK PRODUCTION AND UDDER HEALTH OF DAIRY GOATS IN LOW-INPUT PASTORAL FARMING SYSTEMS IN GREECE	Sotiria Vouraki
12:10	FACTORS AFFECTING XYLAZINE-KETAMINE FIELD ANAESTHESIA OF GOAT KIDS FOR DISBUDDING	James Patrick Crilly
12:20	THERMAL DISBUDDING IN GOAT KIDS: CURRENT PRACTICE, COMPLICATIONS AND CONSIDERATIONS	Mark van der Heijden
12:30	FOREIGN BODY IN THE RUMEN OF A GOAT – A CLINICAL CASE REPORT	Lucie Marie Grimm
12:40	OCULAR DISEASES IN SHEEP – AN OVERVIEW	Johanna Maria Meilwes

12:50 – 13:30 LUNCH

## SOMATIC CELL COUNT AS A TOOL TO CONTROL SUBCLINICAL MASTITIS IN SERRANA GOATS

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### Introduction

Goat milk production is a dynamic industry and a substantial part of farm income to Serrana breeders. Subclinical mastitis is common and one of the most important diseases in dairy goat production with negative impact on animal and human health. Moreover, is responsible for high economic losses. The fight against subclinical mastitis requires the implementation of surveillance and control programs. Several methods to diagnose subclinical mastitis are available but Serrana goat farmers would mainly benefit from cheap and efficient diagnostic methods, as well as from diagnostic tools that can be used at the farm level.

The aim of the research presented in this work was to evaluate somatic cell count (SCC) as a monitoring tool of subclinical mastitis in Serrana goats. This study had mainly two objectives: (i) determine the influence of infectious and non-infectious factors (parity, stage of lactation, production level and number of kids born or weaned) in the SCC; and (ii) propose a physiological threshold of SCC in Serrana goats.

### Materials and methods

In two consecutive lactations, after weaning of kids, 35 (1<sup>st</sup> year) and 32 (2<sup>nd</sup> year) Serrana goats was evaluated (n = 2233). Milk samples were aseptically collected from each half udder once a week and transported to laboratory, under refrigeration conditions (4°C).

Samples for microbiological analyses were immediately processed. They were performed in Plate Count Agar (PCA, Biokar Diagnostics, Beauvais, France) according to ISO 4833:2003 ("Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of microorganisms - Colony-count technique at 30 °C"). Samples exceeding 500 cfu/ml of milk (10<sup>-1</sup> dilution) in PCA were considered positive to mastitis.

Samples to SCC evaluation were preserved with bronopol (10mg 2-bromo-2-nitro-1,3-propanediol; Panreac Quimica SA, Reixac, Spain) and assess by a fluoro-optoelectronic method (Fossomatic®, MilkoScanTM 6000, Hillerød, Denmark) at 40°C.

### Results and discussion

In udder half milk samples without bacterial growth (n = 1708), SCC increased with parity (p <0.05). The SCC experienced a slight decrease during lactation while individual production of milk had a small increase during the same period (p <0.05). Goats with ≥ 3 kids born or weaned have higher SCC throughout lactation (p <0.05). The interaction between factors (parity x stage of lactation; parity x number of kids weaned) also affects SCC.

### Conclusions

We propose a physiological threshold of  $1254 \times 10^3$  cells / ml for individual SCC in Serrana goats farms, which must be interpreted according to lactation stage and parity (primiparous / multiparous). It is suggested to implement periodic bacteriological analyses for validation of SCC results. The CCS should be included as a parameter in the dairy contrasts in Serrana goats.

Keywords: goat, mastitis, somatic cell count

#### References

1. Koop G. 2012. Udder health in dairy goats. PhD Dissertation. Utrecht University, pp. 1-196.
2. Jiménez-Granado R, Sanchez-Rodriguez M., Arce C, Rodriguez-Estevez V. 2014. Factors affecting somatic cell count in dairy goats: a review. Spanish Journal of Agricultural Research 12, 133-150.
3. Quintas, H. Evaluation of the main methods for detecting subclinical mastitis in Serrana breed goats. Vila Real, Portugal: 2015. PhD dissertation in Veterinary Sciences. Trás-os-Montes e Alto Douro University.