The influence of mechanical stimulation on the milking behaviour of dairy goats

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Introduction

Due to growing dairy goat stocks it is necessary to develop an animal-friendly and considerate milking procedure for goats. Results of prevailing preliminary investigations have shown that there is yet a lot of work to be done in optimizing the milking procedure and equipment.

Objectives

1. Analysis of milking behaviour of high yielding dairy goats.
2. Analysis and estimation of influence of stimulation on milking behaviour and on milking routine.
3. Conclusions for milking technique and milking routine.

Methods

Effects of stimulation were studied by 38 White German Goats over the lactation period. The animals were divided into three groups and stimulated different: The goats of group 1 were stimulated by massaging the teats for 20 sec. There was no stimulation for the goats of group 2.There were two kinds of stimulation for the goats of group 3: In an alternation of 14 days : High frequently teat rubber oscillation on beginning of milking process for 20 sec and in the following 14-days-period alternating pulsation frequency while the entire milking process.

During all of the stimulation varieties the parameters milk flow rate, milking duration, latency time and the performance characteristics were analysed. Additionally a milking routine was determined to minimise the influence of the milker. Stripping by hand was avoided.

To illustrate the milk secretion inside the udder during milking, thermal imaging was used.

Results

Mechanical stimulation effectuates a lower milk flow rate. The goats without stimulation showed the highest milk flow rate.

The poster will concentrate on the following partial results:

- Influence of methods of stimulation on time of latency and milk flow rate
- Assessment of thermal imaging for secretion control