**Comparison of Semiautomatic Teat Scrubber vs. Predipping on Reduction of Butyric Anaerobes Count**

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**Introduction**

Anaerobic spore-forming bacteria (ASFB) are important spoilage organisms in a variety of dairy foods. Indeed, the anaerobic interior in semi-hard and hard cheeses provides a favorable environment for some Clostridium species that metabolise lactate into hydrogen gas, resulting in late blowing defects. Butyric anaerobe contamination of milk causes alterations in Grana Padano, Edam. Gouda, Parmigiano, Regianno and other types of cheese.

**Aim**

The aim of this study was to compare the effect of semiautomatic teat scrubber vs. predipping on reduction of butyric anaerobes count.

**Methods**

The study was conducted in 2 dairy farms with semiautomatic teat scrubber (FutureCow) that uses chlorine dioxide and 2 dairy farms with predipping premilking preparation, located in Province of Cordoba, Argentina. Monthly bulk tank milk samples were collected during 2017 for ASFB microbiological analysis. The anaerobic spore content was obtained through the Most Probable Number (MPN). Bacterial counts were expressed as the base 10 logarithm, for statistical analysis. Differences between treatment means were compared with Duncan Test.

**Results**

The geometric means of ASFB in bulk tank milk were 1.56 (36 MPN) and 1.84 (69 MPN) for semiautomatic teat scrubber and predipping, respectively. The ASFB content in milk was significantly reduced by semiautomatic teat scrubber (47.83%) in comparison with predipping (*P*<0.01).

**Conclusion**

The study underlines the key role of teat hygiene in milk spore contamination, which is of utmost importance in the case of raw milk intended for cheese production. From the many research studies undertaken, teat preparation is considered a key preventative factor in reducing ASFB in milk. Semiautomatic teat scrubber yielded the lower level of ASFB in bulk tank milk and was much more efficient in reducing spore contamination than predipping.