Bovine mastitis is the most common and costly dairy cattle disease. Mastitis is most frequently caused by bacterial species, and to ensure optimal treatment and control strategies, proper quality assured diagnosis and identification of the causative agent is important. With the aim to assess the capacity to isolate and identify mastitis pathogens at veterinary clinics, an external quality assurance system (EQAS) was annually (from 2006 to 2011) provided for the identification of mastitis pathogens. This study presents the setup of the proficiency test and the obtained results that enabled the organizers to pinpoint areas for improvement and thereby to assist veterinary practices at strengthening their mastitis diagnostics. The proficiency test consisted of 15 milk samples spiked with a pure culture of a mastitis pathogen and distributed to veterinary practices for identification. Applying an internal quality control strain, i.e. including the same strain of Streptococcus agalactiae in all iterations of the proficiency test, served to gauge the bias caused by the year-to-year variation in the selection of test strains. A total of 73% of all uploaded results over the years were correct, with the internal quality control strain exhibiting a statistically significant ascending trend from 54% correct identifications in 2006 to 91% in 2011 (p-value=0.0082; n=13). Even if specifics were not recorded as regards the laboratory methods employed at the veterinary clinics for identification of mastitis pathogens, the results from this study indicate that the practices’ application of basic biochemical analyses in this context could be optimized. In addition, dissemination of information on new methods and updated nomenclature appeared to be an area which future efforts with advantage could aim at.

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