

Streptococcus spp. from bulk-tank milk and milking clusters in small ruminant farms and factors potentially associated with their isolation

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The objectives of this work were (a) to study the presence of streptococci in samples from small ruminant dairy farms, specifically, in bulk-tank milk samples and in swab samples from milking clusters, (b) to investigate the potential adverse effects in milk quality and (c) to investigate the importance of various husbandry factors for the isolation of streptococci. Bulk tank milk samples and milking clusters swab samples were examined bacteriologically for the presence of streptococci. Somatic cell counting and milk composition measurements were also performed. The significance of husbandry factors prevailing in each farm was assessed for potential associations with the isolation of streptococci. Streptococci were isolated in milk samples from 31.4% of sheep and 17.4% of goat farms and from 2.4% of sheep and 3.9% of goat clusters. They were isolated more frequently from the upper part than the lower part of clusters: 5.4% versus 1.6% ($P = 0.014$). Most isolates were identified as *Streptococcus uberis* (57.9% of all). Most isolates (68.4%) were slime-producing; slime-production was more frequent among isolates from clusters (83.3%) than among ones from bulk tank milk (50.0%) ($P = 0.062$). There were no significant differences in somatic cell counts and milk composition between farms in which streptococci were or were not isolated. Machine-milking was found to be associated with the isolation of streptococci from bulk tank milk samples ($P = 0.058$ for sheep and $P = 0.023$ for goats). The initial stage of the milking period (first two months) was found to be associated with the isolation of streptococci from milking clusters in sheep farms only ($P = 0.005$).