

MILK MICROBIOLOGICAL PROFILE PRODUCED IN A DAIRY FARM FROM SÃO PAULO STATE¹

PERFIL MICROBIOLÓGICO DO LEITE PRODUZIDO EM UMA FAZENDA DO ESTADO DE SÃO PAULO

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Milk is considered one of the finest food because its composition presents several important elements for human nutrition, but problems with animal health, such as mastitis, leads to the decrease in its production and quality. Mastitis is a bovine udder disease that has been the cause of low productivity and offers potential risk to the animal's health. Therefore, attention to the sanitary control of animals is very important. This study aimed to evaluate the milk microbiological quality of cows from a herd which is-composed of breed mixed /Jersey. Milk samples were collected fortnight in February and March of 2011, in 15 lactating cows that exhibited a herd's profile. Each collection totaled 60 samples and a total of 240 samples were obtained in the period. The samples were collected individually in sterile test tubes, previously identified with animal's name and number and mammary quarter. The teats were individually washed with water, dried with disposable paper and then dipped within antiseptic solution of iodine alcohol. The material was packed in insulated box material provided with ice cubes and taken to the laboratory for bacterial isolation and identification. The isolation and identification of strains were performed at Laboratory of the Milk Quality, in Instituto de Zootecnia. From 240 milk samples, 101 (42.08%) were infected and the microorganisms found and its prevalence are on table 1. The most prevalent organism was *S. aureus*, which one is quite worrying, because of its pathogenicity causing large variations in milk composition and somatics cells counts (SCC), reducing the functionality of the infected udder and being very contagious, leading to early disposal or death of the animal. Besides, toxins produced by *S. aureus* in milk foods may be responsible for causing food intoxication in humans. The second most frequent was *Streptococcus* spp., that is an important pathogen of contagious mastitis. The results showed presence of large population of bacteria such as *S. aureus*, *Streptococcus*, *Corynebacterium* spp. and indicated inadequate sanitary conditions of dairy cows; thus reinforcing the need for microbiological examination of milk samples, targeting specific measures that enable mastitis control in the herd.

Table 1 - Isolation number and prevalence of the microorganisms *Staphylococcus aureus* (*S. aureus*), *Streptococcus* spp. (*Strep*), *Staphylococcus* coagulase positive (SCP), *Staphylococcus* coagulase negative (SCN), *Corynebacterium* spp. (*Coryne*), and cocci Gram negative (CGN), isolated from milk samples of lactating dairy cows on a farm at Sao Paulo State (Brazil).

<i>S. aureus</i>	<i>Strep</i>	SCP	<i>Coryne</i>	SCN	CGN	Total
51 (50.49%)	25 (24.75%)	9 (8.91%)	8 (7.92%)	5 (4.95%)	3 (2.97%)	101 (100%)

Key words: milk quality, milking cows, *S. aureus*, *Streptococcus*.