**TITLE:** DIVERSITY OF YEASTS FROM DAIRY GOAT MASTITIS IN ZONA DA MATA OF MINAS GERAIS.

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**ABSTRACT:**

The Zona da Mata of Minas Gerais has a specialized goat milk production chain. Goat milk is superior in quality compared with milk of other domestic species, and the demand for milk and milk products for the public has increased. The mastitis is multifactor disease in dairy small ruminants is mainly of bacterial origin. However, other agentes also cause mastitis and the mammary infection. Fungi are importante causative agents of mastitis in ruminants and several yeasts and moulds have been isolated from the cases of mycotic mastitis in goats. The mastitis studies have been focused on bovine infection and to a lesser extent on caprine and ovine mastitis. The objective of this work was to characterize the yeasts and yeast-like fungi associated with milk of goats mastitis in the Zona da Mata of Minas Gerais. A total of 539 lactating goats were examined and 268 individual samples (one for teat) were collected from animals positive for strip cup test and/or the California Mastitis Test (CMT). Aliquots of 0.1 ml of milk were inoculated on inoculated on two series of Sabouraud dextrose agar. Petri dishes were incubated aerobically both at 25°C and 37°C for 5 weeks. The isolates were examined macroscopically and microscopically after staining with lactophenol cotton blue. Identification of fungi based on gross (colony colour, textures, reverse colour) and microscopic morphology (colour, shape and arrangement of spores along the sporophore, number of septa in the spores etc.), for identification yeasts the reproductive germ tube formation and lamina cultivation (corn agar) for observation for filamentation and chlamydiospores In addition, carbohydrate assimilation and fermentation tests, urease activity on urea agar , pigment production on corn meal agar growth at 37°C and other biochemical tests were assessed. The yeast-like strains that produced arthroconidia were classified in the genera *Geotrichum* or *Trichosporon.* The prevalence of subclinical mastitis was 28.0% and the clinical prevalence was 2.8%. Yeasts were isolated from 38% (102/268) of the samples. Sixteen gêneros of yeast or yeast-like fungi were isolated and identified in the genera: *Candida, Rhodotorula Penicillium, Aspergillus, Microsporum, Trichophyton*, *Nigrospora, Gliocladium, Mucor, and Cryptococcus, Yarrowia.* The most frequent genera were *Candida* (64%), *Rhodotorula* (10%) and *Cryptococcus* (2 %). Among the yeasts of the genus *Candida*, 49% were identified as *Candida albicans*, 25.34% *C. rugosa* and 25.66% *C. krusei.* The results stress the necessity to perform mycological test, for the correct diagnosis and monitoring of mastitis cases in goats. The yeasts found in goat milk may be part of the microbiota or might cause damage to the mammary gland. The consumption of goat's milk and its products that have been contaminated with potentially pathogenic microorganisms constitute a direct risk to public health since many of these organisms are medically important yeasts and capable of causing infections, primarily in individuals with compromised immunity.

**Keywords:** Intramamary infection, Fungus, yeast identification, *Candida*

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