

**TITLE:** OCCURRENCE OF CAUSERS PATHOGENS OF MASTITIS IN EWES DURING LACTATION

**AUTHORS:** SANTANA, R.C.M.<sup>1,3</sup>; BARRETO, A.N.<sup>2</sup>; CARACUSCHANSKI, F.D.<sup>1</sup>; BRASSOLATTI, L.C.<sup>4</sup>; ESTEVES, S.N.<sup>3</sup>; ALENCAR, M.M.<sup>3</sup>; GARCIA, A.R.<sup>3</sup>; ZAFALON, L.F.<sup>3</sup>.

**INSTITUTION:** <sup>1</sup>UNESP – UNIVERSIDADE ESTADUAL PAULISTA, FCAV, PROGRAMA DE PÓS-GRADUAÇÃO EM CIÊNCIAS VETERINÁRIAS, JABOTICABAL, SP (VIA DE ACESSO PROF. PAULO D. CASTELLANE, S/N, CEP 14884-900, BRAZIL); <sup>2</sup>UFPA, CASTANHAL, PA (AV. DOS UNIVERSITÁRIOS, S/N, CEP 68746-360, BRAZIL); <sup>3</sup>EMBRAPA PECUÁRIA SUDESTE, SÃO CARLOS, SP (ROD. WASHINGTON LUIZ, KM 234, S/N, CEP 13560-970, BRAZIL); <sup>4</sup>UNICEP, SÃO CARLOS, SP (RUA MIGUEL PETRONI, 5111, CEP 13563-470, BRAZIL).

**ABSTRACT:**

Several microorganisms are capable of causing infections in the sheep mammary gland, many of them with high zoonotic potential. The inflammation of the gland for infectious causes results in serious damage to animal health and welfare. Susceptibility to infections can alternate due to existing metabolic and immunological changes, depending on the physiological state associated with the time of pregnancy and lactation. This study aimed to identify the occurrence of pathogens in the milk of ewes in three different physiological states associated with pregnancy and lactation: prepartum, postpartum and at the end of lactation. Milk samples were collected aseptically from 31 purebred Santa Ines ewes crossed with Dorper or Ile-de-France. Sixty mammary glands were submitted to microbiological diagnosis in the prepartum phase (average of 13 days before parturition) and 56 mammary glands in the postpartum phase (average of 35 days after parturition) and at the end of lactation, close to weaning (average 88 days postpartum). Microbiological isolation rates according to physiological states were 28.3% (prepartum), 19.6% (postpartum) and 8.9% (end of lactation). Coagulase-negative staphylococci (CNS) was the most isolated microorganism in all physiological states. The distribution of the infectious etiology in the mammary glands was as follows: prepartum (CNS 82.3%; *Streptococcus* spp. 11.8%; *Enterobacteriaceae* 5.9%); postpartum (CNS 63.6%; *Streptococcus* spp. 18.2%; *Staphylococcus aureus* 9.1%; Coagulase-positive staphylococci 9.1%); and end of lactation (CNS 100%). Among the 17 mammary glands with positive microbiological isolation before parturition, 41.2% did not present isolation in subsequent samplings; 23.5% showed isolation in the two subsequent samplings; 17.6% had isolation in one of the subsequent samplings and 5.9% progressed to clinical mastitis. Two ewes showed fibrosing of the mammary gland due to mastitis before being submitted to postpartum evaluation. Coagulase-negative staphylococci (CNS) are the main pathogens associated with intramammary infections in sheep, regardless of their physiological state. The presence of microorganisms in the mammary gland of ewes before parturition is a good indication of infections that can persist during lactation and even progress to clinical mastitis, despite the possibility of the immune system eliminating the microorganism.

**Keywords:** Coagulase-negative staphylococci, ewe, intramammary infection

**Development Agency:** Conselho Nacional de Desenvolvimento Científico e Tecnológico e Fundação de Amparo à Pesquisa do Estado de São Paulo.