# **Titre d’article**: Symbiotic effect on some microbiological species and physicochemical properties in milk in subclinical mastitis of dairy cows

**Abstract :**

. Subclinical mastitis (SCM) is the most common form of mastitis and the greatest cause for concern in dairy cows. The overuse of antibiotics for the treatment of mastitis leads to the development of resistance, resulting in the use of symbiotics. The study was carried out between February and May 2017 at a pilot dairy cattle farm in the Tipaza region (north-central Algeria) aiming to investigate the effect of a symbiotic on SCM. California Mastitis test (CMT) was used to diagnose SCM in a total of 240 dairy cows. A number of 58/240 (24.16%) cows were found to have SCM. These mastitis cows were then divided into two lots; an experimental lot of 37 cows and a control lot of 21 cows. A symbiotic was administered to the experimental lot once a month for three months. Cell count, microbiological analysis and analysis of certain physicochemical parameters of the milk were applied before and after each administration of the symbiotic. The results revealed that the average somatic cells count (SCC) in cows from the control lot was higher than that of cows from the experimental lot throughout the study period (pStaphylococci were isolated from 51/58 (87.93%) of the mastitis cows, of which 21 (36.20%) were infected with Staphylococcus aureus and 30 (51.72%) with coagulase-negative Staphylococcus. Enterobacteriaceae were isolated from 36/58 (62.07%) of the mastitis cows, of which 21 (36.20%) were due to Escherichia coli strain and 15 (25.86%) to other strains of Enterobacteriaceae. After administration of the symbiotic, the prevalence of S. aureus and E. coli decreased significantly in the experimental lot compared to the control lot (p