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THE POTENTIAL IMMUNOMODULAR ACTIVITY OF
ESSENTIAL OILS IN LIVESTOCK

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Summary

The goal of this study was to examine the possibility of using herbal preparations in the therapy of local inflammatory processes of the livestock endometrium, as alternative or supportive therapy with conventional medicines. Quantitative determination of the phagocytic capacity of leukocytes from cows blood samples was performed using the commercial test PHAGOTEST®. Fluorescein labeled *E. coli* bacteria were used as phagocytic particles. The test can determine the percentage of monocytes and granulocytes that performed phagocytosis, the phagocytic ability of individual cells and their activity. The Rtanj tea extract has been found to have a high effect in activating the respiratory burst in most of polymorphonuclear leukocytes. At the same time, the intensity of the reaction and combustion power of ingested bacteria, had similar values between the experimental groups and the positive control. Based on the results of these tests, the herb tea (*Satureja montana L.*) was selected as a species for pharmaceutical use and further testing to determine the dose and route of administration for the prophylaxis and therapy of endometritis in animals.

Key words: essential oils, endometritis, phagocytic capacity