

## EFFICACY INVESTIGATION OF TEST FOR THE DIAGNOSIS OF COW SUBCLINICAL MASTITIS

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**Summary.** Having tested different substances of superficial activity, we determined that their capacity to destroy the membranes of somatic cells and their nuclei and to stimulate their agglutination into clots depend up on the length of detergent radical and on the degree of its superficial activity. The capacity of sodium lauryl sulphate to destroy the somatic cells of milk depends on the concentration of detergent and pH of the solution. The interaction between detergent and milk cells is the best in an alkaline medium (pH 7.2–7.4); the changes of mixture consistence preserve for more than 15 min. On the ground of these data, a new efficacious test (Mastest) was produced for early diagnosis of subclinical mastitis. By its properties Mastest corresponds to the world-wide known California mastitis test ( $r=+0.997$ ). The Mastest readings correlate well with the readings of other tests (Mastirapid, Bernburg reagent, Profilac reagent) and with the number of somatic cells in milk ( $r=+0.895$ ).

**Keywords:** diagnosis of subclinical mastitis, mastitis tests, mastest.