

## COMPARISON OF *DELVO-X-PRESS* AND OTHER METHODS FOR DETERMINING INHIBITORS IN RAW MILK

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**Summary.** Comparison of four methods for determining inhibitors in raw milk – *Delvotest-SP-NT* (microbiological method with spores of *Geobacillus stearothermophilus*) and rapid methods *Delvo-X-PRESS*, *Penzym* and *Penzym S* – was made. It has been determined that sensitivity of *Delvo-X-PRESS* and *Delvotest-SP-NT* to four  $\beta$ -lactams (penicillin, ampicillin, amoxicillin, oxacillin) corresponded with sensitivities declared by manufacturers. Comparison of rapid methods with a reference microbiological method for determining inhibitors in „positive“ milk samples resulted in 94.3 % coinciding of *Delvo-X-PRESS* and *Delvotest-SP-NT*, 73.7 % of *Penzym* and *Delvotest-SP-NT* and 68.0 % of *Penzym S* and *Delvotest-SP-NT*, respectively. Comparison of two rapid methods widely used in Lithuania for determining inhibitors in milk – *Delvo-X-PRESS* and *Penzym* – showed that 68.4 % results of investigated samples tallied. Examination of milk samples in which antibacterial substances were found only using *Penzym* and *Penzym S* method and also the samples, in which antibacterial substances have been found using *Delvotest-SP-NT*, *Penzym* and *Penzym S* method after treating them with penicillinase and p-aminobenzoic acid showed that the results received using *Penzym* and *Penzym S* methods could be false positive.

Based on the results of investigation, proposition was made to validate *Delvo-X-PRESS* method which results during investigation of „positive“ milk samples tallied with a microbiological method in 94.3 % cases.

**Key words:** inhibitors, penicillin, raw milk, *Delvo-X-PRESS* method, *Delvotest-SP-NT*, *Penzym* and *Penzym S* methods.