Automated system to monitoring residues in milk

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Residues testing

a) According to IN-51 (normative from government), published in 2002, every dairy farm should be tested monthly to check the presence of residues in special inhibitors

b) Analysis performed by labs from official networking (Central Milking Testing – CMT) that are responsible to monitoring fat, protein, SCC and TBC

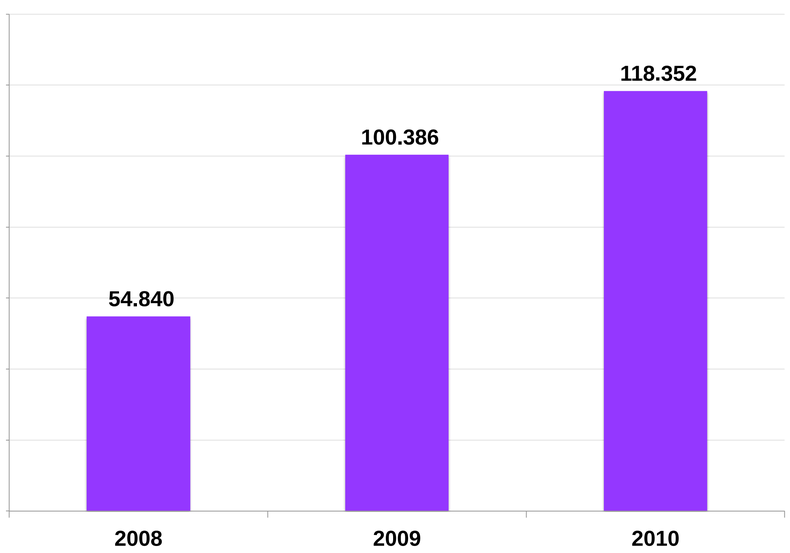


Figure 1. Number of samples tested in Clinica do Leite ESALQ/USP – Delvo Test NT

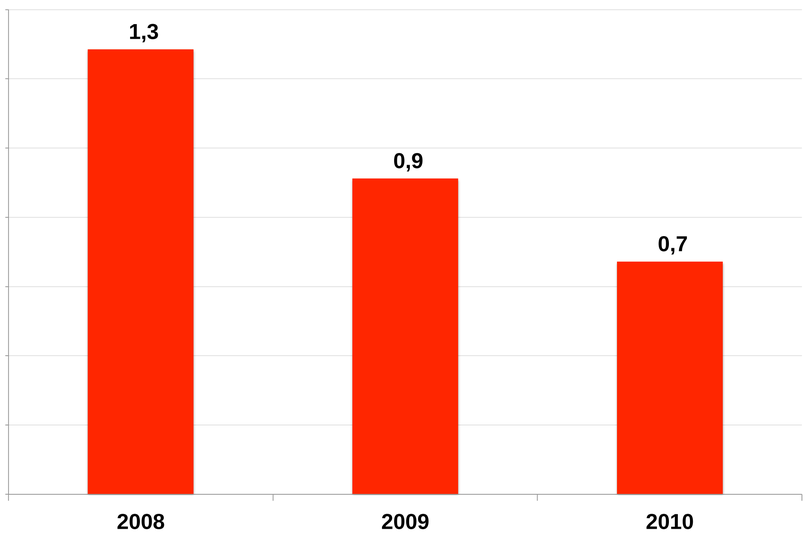


Figure 2. Percentage of positive samples (Delvo Test NT)

Objective

Validate an automated system to monitor residues in milk

Procedures

Samples

a) 870 samples selected

a) 176 positive and 694 negative – Using traditional DelvoTest NT

Testing

a) Tested by DelvoTest NT and Delvotest Accelerator

b) DelvoTest NT = water bath (64ºC) for 180 min

c) DelvoTest Accelerator = heater (64ºC) for 150 min

Results

Specificity and Sensitivity

DelvoTest NT	DelvoTest Accelerator: POS	NEG	Total
POS	176	0	176
NEG	2	692	694
Total	178	692	

Method to monitor residues in large scale: features

a) Reasonable cost

b) Inhibition test (more substances can be detected)

c) Automation (avoid variation during analysis and interpretation)

d) Traceability

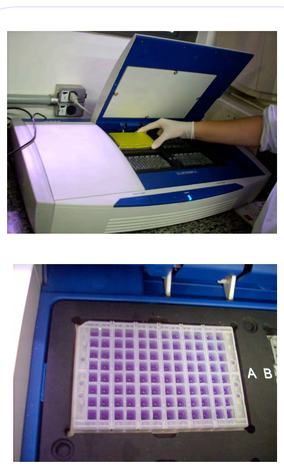
a) DelvoTest NT considered "reference" test

b) Sensitivity 100% (176/176)

c) Specificity 99,7% (692/694)

DelvoTest NT

Water bath + visual reading



DelvoTest Accelerator

Automated system

Conclusion

Through the results of this study, it can be concluded that the DelvoTest Accelerator provides similar results from DelvoTest NT. In addition to a greater speed, it will provide traceability and impartiality in the interpretation of results.