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# **ACCEPTED MANUSCRIPT**

## Contributions to ultrasound monitoring of the process of milk curdling

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#### **ABSTRACT**

Ultrasound evaluation permits the state of milk being curdled to be determined quickly and cheaply, thus satisfying the demands faced by today's dairy product producers. This paper describes the non-invasive ultrasonic method of *in situ* monitoring the changing physical properties of milk during the renneting process. The basic objectives of the study were, on the one hand, to confirm the usefulness of conventional non-destructive ultrasonic testing (time-of-flight and attenuation of the ultrasound waves) in monitoring the process in the case of ewe's milk, and, on the other, to include other ultrasound parameters which have not previously been considered in studies on this topic, in particular, parameters provided by the Fast Fourier Transform technique. The experimental study was carried out in a dairy industry environment on four 52-litre samples of raw milk in which were immersed 500

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