

## Hygienic quality of mare milk

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Mare milk is associated with positive health effects and is therefore usually marketed as raw milk. For shipment the milk is deep frozen or lyophilized. In this case the demands for certified raw milk have to be applied in Germany. The evaluation of the hygienic quality of milk is based on the detection of specific pathogenic micro-organisms and total bacterial count in whole milk. Somatic cell count in composite milk samples is used as criterion for udder health. Milking of mares requires that the foals are not weaned but only separated from their mothers for a few hours before milking. Milking is performed between once per day and to three times per day by hand or machine milking.

The aim of the own investigations was to determine, whether results of routine and reference methods for determination of somatic cell count and total bacterial count comply each other. Investigations were performed on seven farms during one lactation period. Different breeds of mares were included to determine influence factors. In addition samples from udder halves of all lactating mares were investigated.

A good correlation between reference and routine method was determined for somatic cell count. For measuring total bacterial count the routine method is not applicable, because the low bacterial counts present in mare milk could not be differentiated by flow cytometry. In addition it became clear that SCC is not sufficient to determine udder health in mares, but bacteriological investigations are necessary to prevent contamination of mare milk by pathogenic microorganisms. Purulent infections of foals were determined as a cause for post secretory contamination of bulk milk with *Streptococcus equi ssp. zooepidemicus*.