

## Raw sheep milk storage: Freezing or long-term refrigerating, which strategy to take?

Recent research from Center for Food Studies, Campinas University, Brazil, evaluated the freezing or refrigeration storage strategies and effects on milk microbiological quality and microbial growth over long periods. Regarding to freezing storage, they used 1-L plastic bags and 5-L milk buckets. After 1 month, these samples were thawed in two groups at 7°C or 25°C. All samples were evaluated immediately after thawing (day 0) and after 1 day of storage at 7°C. For the evaluation of long-term refrigerating, fresh raw milk samples were stored at 7°C for 10 days in the same package classifications with frozen samples, and also in a bulk milk cooler at 4°C beside adding 10% of fresh raw milk daily. Bacterial counts and total psychrotolerant counts were evaluated before and after thawing for frozen groups and every day for refrigerated samples.

In summary, no significant increase was shown in bacterial counts immediately after thawing for all mentioned samples, although after 1 day of storage, only 1-L bagged samples which thawed at 7°C remained in an acceptable microbiological range. In refrigerated samples, maximum growth rate of total psychrotolerant counts and total bacteria per day were lower in 5-L bucket samples than in others.

**Our conclusion:** Regarding to raw milk storage methods, tested strategies in this study may both be suitable alternatives, but bacterial count is only one of all important factors in milk quality, that could also be affected e.g. by rapid temperature reduction. Best results were achieved for 1-L plastic packs and in the freezing group. More studies with a wider range of factors and longer period of storage than in studies may show more differences and give us a better idea of best ways and methods for storing raw milk. (mg)

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