

QUALITY CHARACTERISTICS OF MOZZARELLA CHEESE MANUFACTURED WITH RECYCLED STRETCHWATER

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ABSTRACT

Stretchwater from mozzarella manufacturing represents a waste that cannot be disposed into the public sewer due to high organic load. An experimentation was performed to evaluate the possibility of reusing it as a new stretching liquid for mozzarella instead of pot water, after membrane filtration treatment. One control and three experimental high moisture mozzarella samples were prepared at three different dairies by stretching the curd with water or stretchwater nanofiltration permeate recycled one, two or three times. The results demonstrated that the experimental cheeses were safe and had the same chemical and sensory characteristics than the control cheese. When the hygienic conditions of the dairy were optimal and pasteurized milk was used, the quality was good even after the third filtration treatment. Further work is needed to obtain more detailed information on the characteristics of the product and to develop a suitable HACCP procedure to validate this innovative production method under the legal point of view.

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