

Optimasi Proses Pemuluran (*Stretching*) Pada Pembuatan Keju Mozzarella Dengan Metode Taguchi. (*Optimization of the Stretching Process in Making Mozzarella Cheese Using the Taguchi Method*)

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ABSTRACT

Mozzarella cheese is a group of fresh cheeses that will melt and stretch when processed at high temperatures. This research aims to determine the optimum conditions for the stretching process in making mozzarella cheese. The methods used are the Taguchi method and the TOPSIS method to determine the best results and are validated using the paired two sample T-test. Based on the Taguchi method, it shows that stretching temperature has a significant effect on the hedonic texture quality test. Meanwhile, stretching time has a significant effect on water content, elongation level and hedonic color quality test of mozzarella cheese. The comparison results of the Taguchi method and the TOPSIS method show that the results are not significantly different. The optimal conditions for the stretching process in making mozzarella cheese are a stretching temperature of 80°C and a stretching time of 15 minutes. The results of the analysis using the Taguchi method are as follows: water content of 41.21%, elongation level of 24.00 inches, color of 3.63 (quite yellowish white), aroma of 2.75 (less milky aroma), texture of 4.00 (smooth and soft) and taste 3.75 (quite savory milk). The results of the TOPSIS (confirmation) method are as follows: water content of 40.28%, elongation level of 24.50 inches, color of 3.50 (quite yellowish white); aroma 2.88 (less milk aroma); texture 4.00 (smooth and soft) and taste 3.88 (quite milky savory).

Keyword: Mozzarella cheese, Stretching, Taguchi