Determination of Optimum Citric Acid Concentration and Pressing Weight for Marinated Ready to Cook Paneer with Maximum Organoleptic Properties

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Optimum acid concentration and pressing weight is critical to get the desired quality of paneer. Aims of this study was to determine the correct citric acid concentration and pressing weight to enhance yield, organoleptic qualities and add value to paneer. Paneer was made using three levels of citric acid concentrations [10%, 20%, 30% (vlv)] and each paneer sample was subjected to three levels of pressing weights (14, 24, 34 g/cm^2) resulted nine treatments. Optimum citric acid concentration and pressing weight were selected by measuring yield and organoleptic properties. Fresh weight of treatments was measured to calculate yield. Organoleptic properties were analyzed by a sensory evaluation using 30 untrained panelists. Three sauce samples were developed using different tomato *(Lycopersicon esculentum)* pulp% and chilli *(Capsicum annum)* powder% (wlw). Three treatments are; 90% tomato pulp, 10% chilli powder and 80% tomato pulp, 20% chilli powder and 70% tomato pulp, 30% chilli powder. Paneer prepared using selected citric acid concentration and pressing weight was marinated using three sauce samples. Sensory evaluation was done to identify best marinated paneer sample and analyzed for shelf-life during 19 days determining yeast and mould count and pH at 4 $^{\circ}C$. Yield was analyzed using two-factor factorial design. Sensory data were analyzed by Friedman non parametric test. Paneer manufactured using 20% (v/v) citric acid concentration, 24 gcm^{-2} pressing weight showed highest ($P<0.05$) yield and organoleptic properties. Paneer marinated with 90% (w/w) tomato and 10% (w/w) chilli sauce showed higher preference ($P<0.05$) for sensory attributes. Optimum citric acid concentration and optimum pressing weight were selected as 20% (v/v) and 24 g/cm^2 to develop paneer with highest yield and organoleptic qualities. Paneer marinated using a sauce of 90% tomato pulp, 10% chili powder was selected as the sample with best sensory attributes, where the shelf-life is 17 days at 4 $^{\circ}C$.

Key words- Paneer, Cheese, Marinate