

ABSTRACT

The Manufacture of a Canned Pumpkin Pie Fill

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Pumpkins (*Cucurbita moschata*), cultivar - "Smooth Skin" were used in the formulation of a pumpkin pie filling that could withstand heat processing in an attempt to increase its utilization.

The methodology used in the manufacture of a canned pumpkin filling was based on the canning of pumpkin puree. Two formulations were evaluated by physical, chemical, sensory and microbial analysis. Formulation I contained nutmeg 1 gm, cinnamon 1 gm, ginger 1 gm, sugar 15 gms and Col-flo 67 15 gms. Formulation II contained nutmeg 0.5 gm, cinnamon 0.75 gm, ginger 0.50 gm, sugar 5 gms and Col-flo 67 15 gms.

A processing temperature of 121°C for 45 minutes, revealed that such cans had attained commercial sterility by microbial analyses. Sensory evaluation of Formulation I and Formulation II of the canned pumpkin pie filling revealed that both samples were quite acceptable with respect to general appearance, colour, taste, aroma and consistency/texture. Statistical analysis using the Chi-square method showed that there was no significant difference between the two formulations at a 1 % level of significance. Hence, there was no preference for either formulations. Laboratory analysis showed that all samples retained their physico-chemical characteristics. There were no deterioration in the general appearance and quality with respect to microbial load over an eight (8) weeks period at a storage temperature of 27 - 29°C (room temperature).

In conclusion, the canning of pumpkin pie filling for both Formulations I and II was successful with respect to the canning operations and quality attributes, and hence show great potential as convenience food items.