An Investigation into the Keeping Quality of "Agidi".

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Abstract:

The effect of storage time and temperature, souring period, surfactant and packaging materials on the keeping quality of Agidi was investigated. Changes in quality were evaluated by determining the moisture content, syneresis, iodine blue value, acidity and pH. The gel strength, microbial load and the sensory qualities were also determined.

The results showed that moisture content of Agidi decreased while syneresis increased with storage time. With increase in storage period, the gel strength of Agidi also increased up to a maximum value and later decreased for samples stored at 28^{o}C and 50°C. There was an increase in acidity value and a corresponding decrease in pH for agidi samples stored at 28°C. Agidi prepared from 4 day soured ogi had a higher syneresis value and a faster staling rate than that prepared from a 2 day soured ogi. The use of surfactant resulted in an increase in initial gel strength of Agidi wrapped in Leaves but with relatively no effect on canned Agidi.

The total microbial load also increased with increase in storage temperature, the counts obtained being 750,000/g at 28°C and 2,484,000/g at 50°C after 9 days storage for Agidi wrapped in Leaves. Corresponding counts for canned samples were 2000/g and 6000/g respectively after 8 weeks of storage. Sensory observation showed that Agidi wrapped in Leaves, PVC and Aluminium foil had shelf life of 6, 9 and 16 days respectively while canned Agidi maintained its quality throughout the 8 weeks of storage period.

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