

Effect of modified atmospheric packaging on shelf-life of *Cham-cham*

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SUMMARY :

The present study was carried out to evaluate the shelf-life of *Cham-Cham* using modified atmospheric packaging (MAP). *Cham-Cham* stored under refrigeration temperature ($7\pm 2^{\circ}\text{C}$) in modified atmospheric condition showed significantly higher shelf-life than the *Cham-Cham* stored at same temperature in normal packaging condition. The compositional attributes such as fat, protein, total carbohydrate and ash of *Cham-Cham* increased significantly where as moisture was significantly decreased up on storage at $7\pm 2^{\circ}\text{C}$. The acidity and soluble nitrogen content where non-significantly increased. However, pH of *Cham-Cham* decreased significantly on storage at $7\pm 2^{\circ}\text{C}$. FFA and HMF content of *Cham-Cham* increased significantly when *Cham-Cham* stored at $7\pm 2^{\circ}\text{C}$. The packages were found to have a significant increased in the hardness, chewiness and cohesiveness. However, significant decreased in the adhesiveness and springiness values of *Cham-Cham* were found at $7\pm 2^{\circ}\text{C}$ storage temperature. However stiffness of *Cham-Cham* increased non-significantly at $7\pm 2^{\circ}\text{C}$. The flavour, body and texture, colour and appearance and overall acceptability scores of *Cham-Cham* declined significantly as storage period progressed. Hence, the shelf-life of *Cham-Cham* extended up to 28 days in MAP as compare to normal packaging shows up to 14 days. It also shows that the use of CO_2 was superior to N_2 in MAP.

KEY WORDS : Modified atmospheric packaging, *Cham-Cham*, Shelf-life, FFA, HMF

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