Development of low fat chicken nuggets using carrageenan

N K Nayak, V Pathak, S K Singh, S K Bharti and M Goswami
Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishvavidyalaya Evam Go Anusandhan Sansthan, India

The objective of this work was to evaluate the incorporation of carrageenan to improve the functional properties of the chicken nuggets. The prepared chicken meat nuggets underwent various tests (physical-chemical analysis, proximate analysis and sensory evaluation). Results indicated that the pH, cooking yield, emulsion stability and moisture content was significantly (P<0.05) higher in carrageenan added chicken nuggets. The fat content was significantly (P<0.05) reduced in treated chicken nuggets. However, protein and ash content was differed non significantly (P>0.05) in between treatments and control. The overall acceptability score was significantly (P<0.05) and score for appearance as well as flavor was non significantly (P>0.05) higher in 0.6 % carrageenan added chicken nuggets. However, the juiciness score was highest at 0.9 % addition of carrageenan. On the basis of sensory attributes and physicochemical properties, the 0.6 % carrageenan incorporated chicken nuggets may improve the functionality of chicken nuggets without affecting the sensory attributes.

Keywords: Carrageenan, low fat, chicken nuggets, functional property.