PARTIAL REPLACEMENT OF MEAT BY PEA FIBER AND WHEAT FIBER: EFFECT ON THE CHEMICAL COMPOSITION, COOKING CHARACTERISTICS AND SENSORY PROPERTIES OF BEEF BURGERS

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ABSTRACT

Pea fiber concentrate (PFC) and wheat fiber concentrate (WFC) were used as dietary fibers in beef burger formulation. These fibers were characterized in terms of chemical composition and techno-functional properties. WFC and PFC presented similar water-binding capacity (3.12 g/g and 3.07 g/g, respectively), whereas a higher oil-binding capacity was observed for WFC (2.89 g/g versus 1.74 g/g). In this study, the level of PFC was fixed at 0.5%, whereas different levels of WFC (0.5%, 1% and 1.5%) were tested. The water-holding capacity of raw beef burger was significantly higher with the addition of fibers. The use of these dietary fibers in beef burger formulation improves their cooking properties, i.e., increases the cooking yield and decreases the shrinkage, and minimizes production cost without degradation of sensory properties.

PRACTICAL APPLICATIONS

The use of dietary fiber and water for meat replacement in beef burger formulation was investigated in order to reduce production costs and to

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