Quality Evaluation of Bread Enriched with Red Sweet Pepper Powder (*Capsicum annuum*)

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ABSTRACT

Bread is an ideal vehicle to impart bioactive compounds to the consumers in a convenient manner. This study evaluated bread enriched with red sweet pepper powder (RSP) at 2, 4, 6, 8, 10% and compared to control bread (without RSP). The bread crumbs were assayed for bioactive, physical, nutritional, textural, color and sensory properties. Bread supplemented with RSP improved its color, nutritional and bioactive properties. The low moisture content and increased hardness were observed at higher levels of RSP. Color intensity (expressed as L*, a*, b* values) of bread with 2 and 4 % RSP were lower than those of high levels and the same trend was observed for protein, fibre and ash content of bread. Significant ($p<0.05$) increases were recorded for bioactive compounds such as total phenols (0.145 to 235 mg GAE/g), antioxidant activity (56% to 78%) and flavonoids (0.112 to 0.379 mg/g) as the level of powder increased. Bread enriched with 8% RSP showed improved sensory profile as compared to control, whereas a further increase in RSP decreased the sensory and textural properties. Thus, RSP act as a natural colorant and functional food that enhanced the functional and nutritional properties of bread and can be used to customize bread for specific health needs.

Keywords: Breads, Bioactive compounds, Red sweet pepper powder, Sensory scores