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Quality evaluation of date seed powder and its utilization in cookies

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The present project was undertaken to explore the functional and <u>nutraceutical properties</u> of date pits. Date seed powder is supplemented at different levels (5%, 10%, 15% and 20%) with wheat flour for the manufacturing of cookies. Date seed powder enriched cookies was subjected to physio-chemical analysis for moisture, crude protein, crude fiber, mineral (Ca, Mg, Fe) and antioxidants. The date seed powder supplemented cookies were analyzed at 15 days' storage interval at 0,15,30,45 and 60 days of storage. Sensory evaluation was performed to analyze the sensory attributes of cookies during subsequent incorporation of date seed powder. The results manifested that the mean value of different parameters among the treatment ranges from 3.38% to 3.47% for moisture content, 8.85-10.27% for protein, 2.06-3.07% for fiber, 327.00-469.26 % Calcium, magnesium (400.42-427.31%), Total Phenolic Content (TPC) (3.29-3.68 µg GAE/100 g) and Radical scavenging activity (DPPH) (10.95-11.02). The significant higher moisture content (3.47%), protein (10.27%), fiber (3.07%), calcium (469.26%), magnesium 427.31% TPC (3.68 µg GAE/100 g) and DPPH (11.02) was found in T4 (20% date seed powder) while significantly lower content of these components was found in T1 (5% date seed powder). Results showed that the mean value for different parameters of supplemented cookies were significantly decreased from moisture content (3.74% to 3.28%), Protein (9.79-9.30%), fiber (2.96-2.55%), Calcium (469.00-468.58%), magnesium (421.02-417.11%), total phenolic content (TPC) (3.66-3.20 µg GAE/100 g) and Radical scavenging activity (DPPH) (11.08-10.76) during 60 days of storage interval. The best sensory results were obtained for T2 (10% date seed powder) in terms of color, flavor, texture, taste and appearance.

Keywords: Functional foods, Nutritional value, Date pits, Date seed powder.

Biography

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