Food Technology-2013

OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference and Exhibition on
Food Processing & Technology

October 28-30, 2013 Kansas City, USA

New product development of canned kidney beans added with fruit dates and evaluate the product in terms of nutrient and sensory evaluation

Fahad Mohammed Bin Jasass
King Abdulaziz City for Science and Technolog, Saudi Arabia

Abstract

Our objectives were to develop a new canned date-light red kidney beans product and evaluate its antioxidant, physical, and sensory quality. Light red kidney beans (LRKB) were canned using a standard thermal process with 0 (control), 10, 20, and 30% added dates. The date addition resulted in significantly higher contents of both total phenolics and antioxidants of canned product. Phenolic profile indicated that light red kidney beans with 30% added dates had the highest total phenolics (95 mg GAE/100 g). Antioxidant activity in light red kidney beans (LRKB) with 0, 10, 20, and 30% of dates as measured by ATBS was 62.9, 126, 201, and 241 µM TE/g respectively. There were highly positive linear correlations between total phenolics and the levels of added dates and also for the antioxidant activities measured by ATBS, DPPH, FRAP and ORAC assays. Significant differences in hunter color L, a, and b values were observed between control and dates added samples. The sensory attribute scores canned date-light red kidney beans did not differ from control, indicating that adding dates to canned light red kidney beans did not affect the quality negatively.

Keywords:

Date fruits, Antioxidant, Phenol, FRAP, ABTS, DPPH, Light red kidney bean, Color, Sensory evaluation

aljasass@kacst.edu.sa