رقم البحث: (السابع)

عنوانه الانجليزى: Utilization of Prickly Pear Peels as antioxidants, dietary fiber and functional ingredients for production of a healthy yoghurt drink.

المؤلفون: **Abdelmonam M.A. Abu El-Hassan** , Hani S.M Abd EL-Montaleb , Laila A. Rabee

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ملخص البحث (السابع) باللغة الانجليزية

This study aims to evaluate the bioactive compounds content, anti-oxidant activity of prickly pear peels (PPP), which showed high levels of these components and studied the effect of adding Prickly Pear Peels (PPP) as a functional ingredient on physicochemical, total phenols, total flavonoids and sensory properties of skimmed-yoghurt drink during 14 days of refrigerated storage. Skim milk without PPP as a control was inoculated with yoghurt cultures, while PPP was used at 0.5, 1 and 1.5 % for the preparation of three trials of skimmed yoghurt drink inoculated with yoghurt culture as well. The application of PPP apparently reduced the fermentation time of inoculated skimmed milk in comparison to control. Viscosity was enhanced in yoghurt drink with PPP and developed during storage. In addition, the color and flavor intensity were improved in sense of measured sensory parameters, acetaldehyde and diacetyl contents, respectively as well as the acceptability by panelists of yoghurt drinks with added PPP when compared to control yoghurt drinks. Moreover, PPP increased the level of total phenols and flavonoids of yoghurt samples. The chemical attributes were also affected by the addition of PPP into yoghurt drinks in terms of moisture, proteins and lipids and ash contents. PPP decreased pH of yoghurt drinks in comparison to control samples. The microbial population and activity in yoghurt drinks with PPP was higher and depended on PPP level. Panelists favored yoghurt drinks with PPP and considered 1 % PPP as the best level added to yoghurt drinks.