

Effect of packaging materials on quality of Quinoa enriched cereal bars

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Quinoa based bar was developed using quinoa, brown rice, flaxseed and nuts and honey (50%) was added as a sweetener and binding agent. The shelf life of bar was assessed in Aluminum Laminates (AL) and High Density Polyethylene (HDPE) bags stored under ambient temperature conditions for 4 months. The stored bar samples were analyzed for moisture content, peroxide value, free fatty acid and sensory quality. Significant variation was noticed in the free fatty acid and peroxide value of cereal bar stored in HDPE packaging material as compared to aluminum laminate bags. However the increase in Peroxide Value (PV; 1.69%) and Free Fatty Acid (FFA; 0.96%) was lesser even in HDPE bags than the prescribed limit. The data related to PV, FFA, moisture content and organoleptic quality of bar using different packaging materials during storage revealed that, the bar remained stable and acceptable for 4 months at ambient conditions irrespective of the packaging materials used. However AL was found to be better packaging material as compared to HDPE because of the better retention of chemical and sensory quality. Product was acceptable after the storage period of 120 days.

Biography

Preeti Ahluwalia working as associate professor in the department of food science and technology, Punjab Agricultural University, Ludhiana. I was born and brought up in Ludhiana, Punjab, India. I did my schooling from a local convent school. After school, I did my bachelor's degree in home science and my master's and doctorate in food science and technology. As a teacher I have taught many courses in the field of food technology and to name them a few; processing of cereals, pulses and oilseeds, processing of fruits and vegetables, sensory evaluation of foods, food packaging. My area of interest of work is developing foods for diabetics and celiac patients as there has been a tremendous rise in population suffering from these two diseases over a period of last decade. I have developed gluten free pasta from little millet and an energy bar with quinoa as a major ingredient for celiac patients. Flour with low GI for making chapati was developed which has been commercialised. I plan to continue working on these type of products.