Development and shelf life study of amaranth cookies

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Amaranth is a high value, underutilized pseudo cereal. It is a potential source of dietary nutrients. Studies reveal that amaranth is nutritional food for celiac disease patients as it is deficient in gluten. In the present study attempt was made to develop amaranth rich cookies. Amaranth grain flour was blended with wheat flour at different ratios 100, 80:20, 60:40, 50:50, 40:60 and 20:80, respectively. Cookies were optimized on the basis of sensory scores with the aim of maximum utilization of amaranth. Cookies made with 100, 80:20 and 40:60 amaranth to wheat flour ratio was found acceptable on sensory basis. Concluding that cookies with 100% amaranth is acceptable on sensory basis. The protein content of 100% amaranth cookies was 11.2g per 100g which was quite higher than other treatments and ash content was 1.83g per 100g. The antioxidant activity of 100% amaranth cookie and 80% amaranth cookies was 55.04% and 55.65% respectively. Shelf-life study was performed on the three best treatments obtained, which were packed in LDPE (Low Density Polyethylene)/pouches and stored at two different temperatures viz. 25°C and 10°C for 30 days. The storage study states that the level of moisture, HMF (Hydroxymethylfurfural), TBA (Thiobarbituric acid) and FFA (Free fatty acid) increased periodically.

Biography

Renu had pursued her master research in the area of pseudocereals and product development. She had earned her M.Sc. degree from Lovely Professional University, Punjab, India. Her research interest includes utilization of amaranth for the development of nutraceutical products.

Anirban Dey is pursuing his master research in the area of Food Engineering from the department of Food Technology and Nutrition at Lovely Professional University, Punjab, India. His research interest includes optimization of freezing conditions of perishable foods.

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