

Investigating the use of date kernel fiber in flat-breads and bulk-breads

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ABSTRACT:

In this research, the usage of date kernel fiber in industrial bread dough and its effect on the quality of bread was studied. For this purpose, the extracted fiber from Rabbi Date was used for baking bread at two levels of %10 and %20, in three replications. After applying the extracted fiber in dough as weigh percentage and baking the breads, organoleptic and shelf life evaluations related to bread was done. The results of penetration test showed that the highest amount of hardness was observed in the treatment of 20% fiber on the first day (1.920 N), and in 10% fiber treatment on the third day (1.744 N). High-fiber breads were more acceptable to the consumer in terms of texture and taste. But the evaluators preferred the control breads in terms of color. There was no significant difference in the odour of the breads. Based on TPA test results, the highest cohesiveness was observed on the first day of baking of breads treated with 20% fiber (0.66 ± 0.071 N.s), 10% fiber (0.235 ± 0.03 N.s) and the control sample (0.21 ± 0.01 N.s) . The lowest cohesiveness was observed in 10% fiber treatment on the fourth day after baking (0.05 ± 0.001 N.s). Finally, the results showed that in addition to adding the nutritional value of bread, the use of date kernel fiber would delay the staling process of industrial breads. It is suggested that the date kernel fiber is used at the industrial scale.

Keywords:

TPA test, Hardness, Fiber, Date kernel, Bulk breads.