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Effect of polyols addition on the shelf-life extensions and quality of Iranian Barbari bread

Pourfarzad A*¹, Hadad Khodaparast MH¹, Karimi M², Hematian Soorki A¹,
Razavizadegan SH¹, Ghiafeh Davoodi M²

¹Department of Food Science and Technology, Ferdowsi University of Mashhad,

²Khorasan Agricultural and Natural Resources center, Iran,

*Email: amir.pourfarzad@gmail.com

Objective: To evaluate selected polyols to increase shelf-life and improve quality of Iranian Barbari bread

Methodology: Two polyols, glycerol and propylene glycol in 3 levels (0, 1 and 5%, w/w, flour basis) were used. The breads were stored at room temperature (25°C) and analyzed after 14 days of storage for quality parameters.

Results and conclusion: Specific volume of fresh breads were not affected by either glycerol or addition of propylene glycol. Addition of propylene glycol significantly decreased the water activity of the Iranian Barbari breads while glycerol had little effect on the water activity. Moisture content was increased by addition of both polyols. The propylene glycol (5%) showed the lowest hardness increase and moisture loss compared to all treatments from day 0 to day 14. Sensory evaluation of polyol-applied Barbari breads by panelists showed that these kinds of breads were better with regard to firmness of texture than control bread.