

عنوان مقاله:

Effects of Damask Rose (*Rosa damascena* Mill.) Extract on Chemical, Microbial, and Sensory Properties of Sohan (an Iranian Confection) During Storage

محل انتشار:

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خلاصه مقاله:

Background: Sohan is an Iranian traditional brittle confection which its ingredients are susceptible to oxidation and microbial contamination during storage. This experimental study was designed to determine the effect of damask rose (*Rosa damascena* Mill.) extract on some chemical, microbial, and sensory properties of Sohan during storage at 25 °C. Methods: The Sohan ingredients were mixed, baked, and shaped in flatted types. Different Sohan formulation groups were separately prepared, including 0.1, 0.3, and 0.5% rose extracts groups; 0.02% Butylated Hydroxyanisole (BHA) group; and control group (with no foreign additive). The Sohan samples were packaged and stored at 25 °C for 1, 30, 60, 90, 120, 150, and 180 interval days. The samples were analyzed for Free Fatty Acids (FFAs), Peroxide Value (PV), p-Anisidine Value (AnV), Total Phenolic Content (TPC), 2,2-diphenyl-1-picrylhydrazyl (DPPH), surface color, microbial, and sensory properties. Data were compared using Duncan's multiple range tests by SPSS, Inc., Chicago (v. 16.0). Results: Overall, Sohan groups contained 0.5% rose extract and also 0.02% BHA had significantly ($p < 0.05$) better antioxidant and antimicrobial effects, and sensory properties in comparison with the other groups. The color indices (L^* , a^* , and b^*) were significantly decreased during storage time. Based on panelist suggestion, the overall acceptance of samples were unacceptable at the end of storage period (day 180). Conclusion: It is concluded that at 25 °C storage, 0.5% rose extract and 0.02% BHA were effective to retard Sohan rancidity until 90 and 120 days, respectively.

کلمات کلیدی:

Anti-Infective Agents, Lipid Peroxides, Food Storage, Antioxidants

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