

DEVELOPMENT AND ORGANOLEPTIC EVALUATION OF *MORINGA* - *ALOE VERA* BLENDED NUTRACEUTICAL DRINK

Aftab Ahmed^{1,2}, Shinawar Waseem Ali^{1*}, Khalil-Ur-Rehman¹, Shakir Manzoor¹ and Syed Rajab Ayub¹

¹Institute of Agricultural Sciences, University of the Punjab, Quaid -e- Azam Campus, 54590 Lahore, Punjab, Pakistan

²Institute of Food and Home Sciences, Govt. College University, Allama Iqbal Road, 38000 Faisalabad, Punjab, Pakistan

*email: Shinawar.iags@pu.edu.pk

Abstract

The core purpose of the current research was to develop nutraceutical drink having acceptable sensory attributes by blending *Aloe vera* and *Moringa* leaf extracts at different levels.

The leaves of *Moringa oleifera* and *Aloe barbadensis* used for this study were collected from mature plant present in the experimental fields of Institute of Agricultural Sciences, University of the Punjab Lahore, Pakistan. The *Moringa* powder infusion and *Aloe vera* juice was blended, filtered and mixed with sugar syrup of 70 °Brix, and after this water was added up to volume of 250 mL. Then citric acid and preservative (sodium benzoate) were added and stored at refrigerating temperature. Physicochemical properties like: pH, acidity, total soluble solids (TSS), ash%, moisture% and vitamin C of *Moringa* - *Aloe vera* blended beverage were determined through the methods described by AOAC, while organoleptic analysis was performed at Institute of Agricultural Sciences in Pakistan by 20 trained panelists for sensory attributes like: appearance, color, flavor, taste and overall acceptability.

Results showed that moisture and ash content were in range from 99.18 to 98.89% and 0.015 to 0.069%, respectively, while pH ranged from 4.35 - 4.46 and total acidity 0.160 - 0.128. Additionally, total soluble solids (14 - 11 °Brix) and high ascorbic acid content (135.06 - 138.84 mg/mL) was also observed. Moreover, sensory properties of treatment T₂ (50 : 70 v/v *Moringa* - *Aloe vera* blend) scored highest points at hedonic scale i.e. 6.5, 6.4, 6.5, 7.5, 8.5 and 8.3 for color, aroma, flavor, mouth feel, taste and overall acceptability respectively.

Overall, the current investigation has provided a succinct resume of information regarding the physicochemical composition and organoleptic characteristics of *Moringa*-*Aloe vera* blended nutraceutical beverage.

Key words: *Moringa oleifera*, *Aloe barbadensis*, organoleptic evaluation, physicochemical analysis, functional drink.