Colloquium on Applied Sciences 1 2025
20-24 January 2025, Faculty of Applied Sciences, UiTM Shah Alam, Malaysia

Sensory Evaluation of Bidara Leaves (Tea) Infusion *(Ziziphus mauritiana)*

Dahlia Mohd Nahar[a,], Nafisah Musa[abc*]

[a]Faculty of Applied Sciences, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia
[b]Non-Destructive Biomedical and Pharmaceutical Research Centre, Smart Manufacturing Research Institute, Universiti Teknologi MARA Selangor, 42300 Puncak Alam, Selangor, Malaysia
[c]Food Process Engineering Research Group, College of Chemical Engineering, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia

Structured Abstract
Herbal infusion is a caffeine-free drink with potential health benefits, made by steeping plant materials in hot water. Ziziphus mauritiana (bidara) is a medicinal plant valued for its antioxidant and therapeutic properties, with its leaves rich in compounds like flavonoids and polyphenols. With growing interest in natural beverages, scientific studies are needed to validate the health claims of bidara leaves infusion. This study aims to evaluate the sensory evaluation of bidara leaf tea infusion varying in their maturity stage (shoot and matured leaves) and the processing method of the leaves. The sensory evaluation conducted suggest that processed matured bidara leaves infusion is the most accepted compared to other samples as its score for most attributes such as colour (6.68), mouthfeel (5.18), earthy (5.68), and overall acceptability (5.29) is the highest compared to other samples.

Background: Herbal infusion is a non-caffeine infusion drink prepared by steeping plant material in hot water. It serves as an alternative for promoting better health. *Ziziphus mauritiana* functions as a therapeutic plant which demonstrates antioxidant abilities along with multiple healing properties. Numerous scientific investigations are required to confirm bidara leaves infusion health benefits as interest in natural beverages grows rapidly.

Methods: The sensory evaluation of bidara leaves tea infusion will be conducted to determine the acceptability of bidara leaves tea infusion and leaves of different maturity stages and processing method in terms of colour, bitterness, astringency, mouthfeel, earthy, aftertaste, and overall acceptability. As for proceed leaves, the leaves were dried in tray drier at 60°C and were ground. Both processed and fresh leaves were infused in hot water for 30 minnutes. The sensory evaluation bidara leaves infusion involves 34 panelists, in which the panelists are required to evaluate the bidara leaves infusion using 9-point hedonic scale.

Results: This study shows that processed matured bidara leaves infusion were the most accepted compared to other samples as it has higher mean score for colour mouthfeel, earthy flavour, and overall acceptability, indicating that the infusion was the most accepted sample in comparison with other samples as showed in Figure 1.

*Correspondence: nafisahmusa@uitm.edu.my

[a] School of Industrial Technology, Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Malaysia

[b] Food Science Research Group, Universiti Teknologi MARA, Shah Alam, Malaysia

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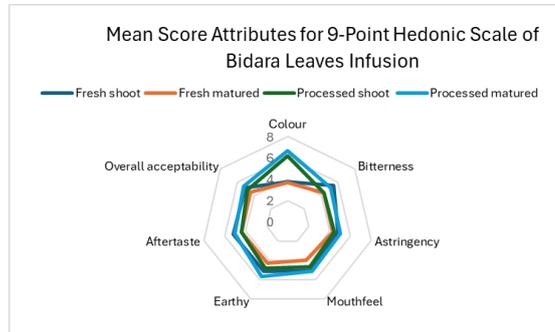20-24 January 2025, Faculty of Applied Sciences, UiTM Shah Alam, Malaysia

Figure 1: Mean scores attributes of 9-point hedonic scale of bidara leaves infusion.

Conclusion: In conclusion, the findings of this study indicated that the processed matured bidara leaves infusion was the most accepted bidara leaves infusion.

Keywords: *Ziziphus maurtitiana,* Bidara, infusion, 9-point hedonic scale

*Correspondence: nafisahmusa@uitm.edu.my

a School of Industrial Technology, Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Malaysia

b Food Science Research Group, Universiti Teknologi MARA, Shah Alam, Malaysia