

## **Determination of chemicals and microbial contaminants in “Thakoo Sarubathu”**

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Traditional medicine has been widely used for healing of diseases, as an alternative to modern medicine. Maldivians rely on traditional medicine (“Dhivehi beys”) such as “Thakoo sarubathu”, formulated as a cure for children having diarrhea and vomiting. The two main ingredients of Thakoo sarubath include liquorice (*Glycyrrhiza glabra linn*) and Saffron (*Crocus satvus*) that have many health benefits such as antifungal, antiviral and antibacterial properties. The aim of this study was to assess the adulterants, microbial and heavy metal contaminants in thakoo sarubathu. Thakoo sarubath was purchased from local traditional medicine shop in Maldives and analysis was carried out at SGS Lanka Laboratory Pvt Ltd, Sri Lanka. Modern medicine adulterants including aspirin and paracetamol was analyzed using near infrared spectroscopy. Heavy metals were analyzed using atomic absorption spectroscopy. Microbial analysis was carried out using accredited methods. The results revealed that none of the adulterants of modern medicine was detected. Also, heavy metals including Pb, As, Cd, Cr, Cu, Tl, Mn and Hg were not detected. The aerobic bacteria and coliforms were within the acceptable limit and Salmonella spp was not detected. Overall, results indicate that Thakoo sarubathu is safe for children to consume.

**Keywords:** Thakoo sarubathu, Traditional medicine, Dhivehi beys, heavy metals, adulterants, bacteria

### **Recent Publications**

1. Naila, A., Meerdink, G., Jayasena, V., Sulaiman, A. Z., Ajit, A. B., & Berta, G. (2019). A review on global metal accumulators—mechanism, enhancement, commercial application, and research trend. *Environmental Science and Pollution Research*, 1-23.
2. Naila, A., Sulaiman, A. Z., Ajit, A., & Mohamed, A. (2022). Maldivian traditional medicine: *Sarubath*. *TechConnect Briefs*, 119-123.
3. Shahma, F., Naila, A., Mohamed, A., & Sulaiman, A. Z. (2019). Heavy metal content in herbal medicine and plants. Paper presented at the Theveli 2019, Male', Maldives.
4. Rayya, A., Hassan, R., Naila, A., Mohamed, A., & Sulaiman, A. Z. (2019). Medicinal effect of Castor oil plant. Paper presented at the Theveli 2019, Male', Maldives.
5. Musthageema, A., Naila, A., Mohamed, A., & Sulaiman, A. Z. (2019). Microbial contamination of herbal medicine. Paper presented at the Theveli 2019, Male', Maldives.

35<sup>th</sup> World congress on **Pharmacology**

38<sup>th</sup> International Conference on

**Advanced Nanotechnology**

12<sup>th</sup> European Chemistry Congress

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6. Abugabr Elhag, H. E. E., Naila, A., Nour, A. H., Ajit, A., Sulaiman, A. Z., & Aziz, B. A. (2018). Optimization of protein yields by ultrasound assisted extraction from *Eurycoma longifolia* roots and effect of agitation speed. *Journal of King Saud University - Science*. doi:<https://doi.org/10.1016/j.jksus>.

### Biography

Aishath Naila a competent scientist very passionate about science research, enjoy working as part of a team and is a good communicator. Exhibits a dedicated work ethic and is adept in multi-tasking and excels as team leader. Exhibits a good interpersonal, motivational and presentation skills.

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