IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, June 2025
Impact Factor: 7.67

Formulation and Evaluation of Moringa Oleifera Tablet

Rahul Narayana Aghav, Prof. Zulekha Yasmeen, Dr. K. P. Surwase
Kishori College of Pharmacy, Pimpalner Road, Beed

Abstract: *Moringa oleifera is a medicinal plant with a rich phytochemical profile and diverse therapeutic properties, including antioxidant, anti-inflammatory, and antidiabetic effects. Reviewed literature highlights its potential in managing complications associated with heart disease, cancer, fatty liver, and diabetes mellitus. The leaves are particularly abundant in vitamins (A, C, E), essential minerals (calcium, potassium, iron), amino acids, and bioactive compounds such as flavonoids and phenolics. Despite these benefits, conventional consumption forms like powders and teas often face limitations including poor dose uniformity, low patient compliance, and short shelf life. To address these issues, Moringa oleifera tablets were formulated using the wet granulation method to improve dosage precision, stability, and patient adherence.*

The preparation process involved weighing, sieving, blending with pharmaceutical excipients, wet granulation using a starch binder, drying, lubrication, and compression into tablets. The tablets demonstrated avoidable physicochemical properties, including uniform weight, appropriate hardness, disintegration time, and consistent drug release. Pharmacological evaluation supported their antidiabetic efficacy, as evidenced by their significant potential to lower blood glucose levels, consistent with prior experimental findings. Furthermore, emerging studies suggest that Moringa may exert its effects through modulation of pro-inflammatory responses and oxidative stress pathways, potentially offering protective effects in metabolic disorders.

Overall, the study highlights Moringa oleifera-based tablets as a promising and affordable phytopharmaceutical for diabetes management. However, further clinical trials are essential to validate their long-term safety, therapeutic efficacy, and mechanistic pathways in human subjects.

Keywords: Moringa oleifera

DOI: 10.48175/IJARSCT-27492