



Review On: Guide to Grow Piper Betel Plant and its Pharmacological, Nutritional Value in Health Management

Akanksha. D. Kanhere^{1*}, Shital Gaikwad¹, Supriya. S. Panchal², Siddhesh K. Kanpile³, Ajay C. Ahire⁴.

Students, Samarth Institute of Pharmacy, Belhe, Maharashtra., India^{1*234}

Department of Pharmaceutics, Samarth Institute of Pharmacy, Belhe, Maharashtra, India¹
akankshakanhere@gmail.com

Abstract: The betel, *Piper betel*, is a species of flowering plant in the pepper family *Piperaceae*. It is mainly grown in Sri Lanka, India, Thailand, Taiwan & other Southeast Asian countries. The leaves are nutritive and contain anticarcinogens showing promise for manufacturing a blood cancer drug. Betel leaves are the most valued part of the plant, in the past were routinely used as a chewing agent to restrict offensive breath and they contain tannins, chavicol, phenyl, propane, sesquiterpene, cineole, alkaloid, sugar, and some essential oil and found various medicinal value, digestive, appetizer, aromatic, expectorant, stimulant, anti-bacterial, antiprotozoal, carminative, anti-fungal and aphrodisiac, etc. This review for the first time provides information on therapeutic effects and also addresses the various mechanisms which might be involved.

Keywords: Piper betel, Chemical constituents, Collection & cultivation, Pharmacological activity.

REFERENCES

- [1]. Datta Arani “Antimicrobial Property of Piper betel Leaf against Clinical Isolates of Bacteria” Vol.2(3), 2011, 104-109
- [2]. Shah SK, Garg G, Jhade D, Patel N. Piper betel: phytochemical, pharmacological and nutritional value in health management. Int J Pharm Sci Rev Res. 2016;38(2):181-189
- [3]. Ratna BR, Kasaudhan R. A Review on Tambula (*Piper Betel Linn.*) from Ayurvedic and modern perspective. World J Pharm Res. 2021;10(5):1652-1663
- [4]. Satyavati GV, Raina MK, Sharma M. Medicinal Plants of India. New Delhi: Indian Council of Medical Research, New Delhi, India. Vol 1, 1987
- [5]. Kirtikar KR, Basu BD. Indian Medicinal Plants Vol' III, 2nd ed. Lalit Mohan Basu Prakashan, Allahabad. 1993:2131
- [6]. Medicinal plants by Shankar Gopal Joshi, Oxford \$ IBH publishing Co. Pvt. Ltd. New Delhi, 307
- [7]. Chopra, R.N., Nayar, S.L. and Chopra, I.C.: Glossary of Indian Medicinal Plants. CSIR, New Delhi 1956: 194.
- [8]. Rupa Sengupta, Jayanta K. Banik. A Review on Betel Leaf, International Journal of Pharmaceutical Sciences And research. 2013;4(12); 4521-4523.
- [9]. <https://agriculturistmusa.com/how-to-grow-betel-leaf> Referred on :- 28/8/2023.
- [10]. <https://bedroomloop.com/hi52st2crr?key=22d0d3d617897f9f41e83bf74cff853d&psid=IN> android-google-chrome_mob. Referred on:- 29/8/2023.
- [11]. <https://www.google.com/imgres?imgurl=https%3A%2F%2Fagriculturistmusa.com%2Fwp-content%2Fuploads%2F2022%2F02%2FBetel-Leaf-Plant.webp&tbnid=sc89fmZg6R8CzM&vet=1&imgrefurl=https%3A%2F%2Fagriculturistmusa.com%2Fhow-to-grow-betel-leaf%2F&docid=EfcXYlgdM2xs5M&w=1000&h=800&hl=en-US&source=sh%2Fx%2Fim%2Fm5%2F4> Referred on :- 30/8/2023



- [12]. Betel leaf farming, planting, care, harvesting guide by Jagdish 2015 <http://www.agrifarming.in/betel-leaf-farming-information>
- [13]. Pradhan D, Suri KA, Pradhan DK and Biswasroy P: Golden heart of the nature: Piper betel L. Journal of Pharmacognosy and Phytochemistry 2013; 1(6)
- [14]. Ghosh R, Darin K, Nath P and Deb P: An overview of various Piper species for their biological activities. Int Journal of Pharma Research & Review 2014; 3(1): 67-75
- [15]. Patel NM, Jain DD, Suryawanshi HP, Pawar SP. Phytopharmacological Study of Piper betel Leaf. Saudi Journal of Medical and Pharmaceutical Sciences. 2019;5(11):964-971
- [16]. Vikash C, Shalini T, Verma NK, Singh DP, Chaudhary SK, Asha R. Piperbetel Phytochemistry, traditionaluse & pharmacologicalactivitya review. International Journalof Pharmaceutical Researchand Development (IJPRD). 2012;4(4):216-223.
- [17]. Prasanna SV, Ramya D, Haritha C, Pandya V, Nadendla RR. A Comprehensive reviewontherapeuticpotentialof Piperbetelleafforthetreatmentof neurological diseases. 2021;6(4): 611-619.
- [18]. Afridi M, Muhammad IshaqueM.R., Ahmad T, Hussain A, Akram M, Ghotekar S, Oza R, Marasini BP. Ethno-Medicinal Uses of Piper Betel— A Review. Advanced Journalof Chemistry, Section B, 2021;3(3), 199-208.
- [19]. Azahar NI, Mokhtar NM, Arifin MA. Piper betel: a reviewonitsbioactive compounds, pharmacologicalproperties, and extraction process. InIOP Conference Series: Materials Science and Engineering 2020(Vol. 991, No.1, p. 012044). IOP Publishing.
- [20]. Umar RA, Zahary MN, Rohin MA, Ismail S. Chemical composition and the potential biologicalactivitiesof Piperbetel—a Review. Malaysian Journalof Applied Sciences. 2018;3(1):1-8.
- [21]. Aishwarya J, Chauhan ES, Singh A, Tiwari AA. Review: Nutraceuticals Properties of Piper Betel (Paan). American Journalof Phytomedicineand Clinical Therapeutics. 2016;4(2):28-41.
- [22]. Chan EW, Wong SK. Phytochemistry and pharmacologyof three Piper species: An update. International Journalof Pharmacognosy. 2014;1(9):534-44.
- [23]. Rekha VP, Kollipara M, Gupta BR, Bharath Y, Pulicherla KK. A reviewon PiperBetleL.: nature'spromising medicinalreservoir. American Journalof Ethnomedicine. 2014;1(5):276-89.
- [24]. Sengupta R, Banik JK. A review on betel leaf (pan). International Journalof Pharmaceutical Sciences and Research. 2013;4(12):4519