

## Bamboo Manna (Vanshalochan): A Review of Silica-Rich Panacea for Health and Wellness

Deepak V. Fajage<sup>1\*</sup>, V. S. Adak<sup>1</sup>, S.R. Borate<sup>1</sup>, R.V. Shete<sup>1</sup>, Swapnali J. Bhagat<sup>1</sup>, Sangram D. Chikane<sup>1</sup>, P.B. Awate<sup>2</sup> and Shivkumar M. Sontakke<sup>3</sup>

<sup>1</sup>Department of Pharmacology, Rajgad Dnyanpeeth's College of Pharmacy, Bhore, Pune, Maharashtra, India.

<sup>2</sup>Department of Pharmaceutics, Rajgad Dnyanpeeth's College of Pharmacy, Bhore, Pune, Maharashtra, India.

<sup>3</sup>Department of Pharmaceutics, Government College of Pharmacy, Karad, Satara, Maharashtra, India.

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Bamboo manna, also known as vanshalochan, is a traditional herbal substance derived from bamboo plants, rich in silica and various minerals. This review explores its medicinal applications, focusing on its pharmacological properties and therapeutic effects. Historically, Bamboo manna has been utilized in Ayurveda and Traditional Chinese Medicine for treating a variety of ailments. The high silica content in Bamboo manna is particularly beneficial for supporting bone health, enhancing digestive functions, and improving skincare. Additionally, it has been employed to alleviate urinary disorders, respiratory conditions, and to promote balance within the nervous system. Despite its extensive historical use, modern scientific investigation into Bamboo manna's mechanisms of action and clinical efficacy remains in the early stages. Preliminary studies suggest that the silica in Bamboo manna may play a crucial role in promoting collagen synthesis, which is vital for maintaining the structural integrity of bones and skin. Furthermore, its potential anti-inflammatory and antioxidant properties could be beneficial in managing conditions like arthritis and respiratory disorders. This review aims to highlight the potential of Bamboo manna as a natural remedy with broad therapeutic applications. It underscores the need for rigorous scientific research to validate traditional claims and to fully understand the pharmacological mechanisms underlying its effects. Such research could pave the way for integrating Bamboo manna into modern medicinal practices, potentially offering a natural alternative for treating various health conditions. Future studies should focus on clinical trials and detailed pharmacokinetic analyses to establish safety profiles and therapeutic efficacy.

**Keywords:** Ayurveda; Bamboo Manna; Tabasheer; Vanshalochan

Bamboo manna, also recognized as tabasheer or vanshalochan, signifies a fascinating convergence of botanical exploration and medicinal heritage<sup>1</sup>. Silicon, a major component of Bamboo manna, plays a crucial role in both the natural

environment and living organisms. Although silicon is widely found in the Earth's crust, specific plants like bamboo concentrate significant quantities of this element, primarily in the form of amorphous silica gel<sup>2-11</sup>.

\*Corresponding author E-mail: [deepakfajage5@gmail.com](mailto:deepakfajage5@gmail.com)



The Equisetum genus, known for its high silica content, has historically been utilized for its abrasive properties in various practical applications<sup>12</sup>.

Tabasheer, distinguished by its silica-rich composition, showcases the botanical excellence of bamboo. This gelatinous substance, found within the hollow stems of certain bamboo species, is esteemed for its medicinal properties in traditional practices across India and China<sup>13-15</sup>.

Although scientific interest in tabasheer has fluctuated over the centuries, modern research has illuminated its fascinating structure and potential applications. Early investigations by pioneers such as Macie, Brewster, and Cohn established the foundation for later studies, ultimately leading to a 1942 patent for its catalytic properties<sup>1,16-18</sup>.

Subsequent research in the 1960s delved deeper into tabasheer's structure, revealing its resemblance to opal and silica gel<sup>19,20</sup>.

Physically, tabasheer exhibits a range of characteristics, from chalky to translucent, and possesses a fracture pattern suggestive of specific

minerals. Its high silica content, confirmed by compositional analysis, underscores its potential as a versatile material with applications ranging from medicine to catalysis<sup>21,22</sup>.

### Historical Context

The use of Bamboo manna traces back to ancient times, where it was highly esteemed in traditional healing practices. References to bamboo and its medicinal properties can be found in ancient Ayurvedic texts such as the Charaka Samhita and Sushruta Samhita, dating back thousands of years. Similarly, in Chinese medicine, bamboo has been revered for its healing properties for over two millennia, with mentions in classical texts like the "Shennong Ben Cao Jing." These historical accounts attest to the longstanding recognition of Bamboo manna as a valuable therapeutic substance.

### Temperament

Cold and dry<sup>23,24</sup>

### Parts Used

Root, grains, young sprouts, Bamboo manna, leaves<sup>27,28</sup>

### Actions (As per Unani Literature)

Bamboo manna, as per Unani literature, is renowned for its diverse therapeutic actions. It serves as a cardiac tonic, promoting heart health<sup>23-26, 29</sup>, and acts as an exhilarant, uplifting mood and vitality<sup>26, 29-31</sup>. Its desiccative properties aid in drying up excess moisture<sup>24-26, 31</sup>, while its astringent qualities help to constrict tissues and reduce bleeding<sup>23, 24, 26, 30, 31</sup>. Additionally, Bamboo manna functions as a refrigerant, cooling the body<sup>31, 24-26</sup>, and as a stomachic, enhancing digestive health<sup>29, 30, 32</sup>. It is also recognized for its anti-inflammatory effects, reducing inflammation<sup>32</sup>, and as an antidote, counteracting toxins<sup>30</sup>. Furthermore, it exhibits styptic properties, arresting bleeding<sup>25</sup>, and acts as an aphrodisiac, enhancing sexual health<sup>33</sup>. Lastly, it is considered a compound of strength, boosting overall physical robustness<sup>23, 32</sup>.



Fig. 1. Bamboo manna

Table 1. Chemical Constituents

|  |   |
|--|---|
| Elemental composition                      | SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , CaO, MgO, TiO <sub>2</sub> , K <sub>2</sub> O, P <sub>2</sub> O <sub>5</sub> , Si / Al <sup>35</sup> |
| Mainly composed of                         | Silicic acid (SiO <sub>2</sub> ) up to 96.9%  |
| Traces                                     | Iron, alum, alkalis, and 1% organic matter.   |
| Tabasheer from <i>Bambusa arundinaceae</i> | Silica 90.5%, potash 1.1%, alumina 0.4%, iron peroxide 0.9  |
| Indian Tabasheer composition               | 97% silicic acid, 2.9% water with traces of potash and lime <sup>37</sup>   |
| Specific gravity of Tabasheer              | 2.169 at 11.4°C   |

**Uses (As per Unani Literature)**

Bamboo manna, according to Unani literature, is utilized for various medicinal purposes. It is used to treat leucorrhoea<sup>31</sup>, and is effective in alleviating palpitations<sup>23,26,29-32</sup>. It is also beneficial for managing syncope<sup>29-32</sup> and treating stomatitis<sup>29,31,32</sup>. Bamboo manna helps in addressing gastric erosion<sup>29,30</sup> and burning micturition<sup>30</sup>. It is commonly used to treat loose motion<sup>25,26,29,32</sup> and acts as a bile purgative<sup>24,30</sup>. Additionally, it is useful in treating spermatorrhoea<sup>29-31</sup> and is considered beneficial in fever management<sup>23,26</sup>.

**Actions (As per Other Literature)**

Bamboo manna, as documented in various other literatures, exhibits a wide range of actions. It functions as an expectorant<sup>33</sup>, helping to clear mucus from the respiratory tract, and acts as an astringent<sup>27</sup>, causing the contraction of body tissues. Its thermogenic properties promote heat production in the body<sup>33</sup>, while its anti-inflammatory effects help reduce inflammation<sup>33</sup>. As a cardiogenic, Bamboo manna supports heart health<sup>33</sup>, and its depurative qualities aid in detoxifying the body<sup>27</sup>. It also serves as a laxative<sup>27,33</sup>, facilitating bowel movements.

Additionally, Bamboo manna has antidiarrheal, antiparalytic, acrid, and antileprotic properties<sup>33,34</sup>, and it supports digestion and acts as a diuretic<sup>33</sup>. Its carminative properties help to expel gas from the intestines<sup>33,34</sup>, and it is also noted for its alexeteric (protective against infection) effects<sup>27</sup>. The cooling action of Bamboo manna helps to lower body temperature<sup>33</sup>, and it is recognized as an aphrodisiac<sup>33-35</sup>. Furthermore, Bamboo manna functions as a tonic<sup>27</sup>, enhancing overall vitality, and as a vulnerary, it aids in healing wounds<sup>27</sup>.

Its febrifuge properties help to reduce fever<sup>33</sup>, and it acts as an emmenagogue, stimulating menstrual flow<sup>27,33</sup>. Bamboo manna is also an anthelmintic, expelling parasitic worms<sup>33,36</sup>, and serves as a blood purifier<sup>34</sup>.

Bamboo manna, as highlighted in various literatures, is employed for an array of medicinal uses. It is effective in treating leukoderma<sup>34</sup>, and is used to alleviate vomiting<sup>27,33</sup>. It provides relief from diarrhoea<sup>33</sup> and jaundice<sup>33</sup>. Additionally, it is beneficial for conditions like haemoptysis<sup>33,34</sup> and haematemeses<sup>33</sup>. Bamboo manna is also used to treat leprosy<sup>27,36</sup> and manage fever<sup>36</sup>.

It addresses hyperdipsia<sup>27</sup> and various

inflammatory conditions<sup>34</sup>. Bamboo manna helps in the treatment of dyspepsia<sup>27,33</sup> and is effective against ringworm<sup>33,34</sup>. It is used in managing syphilis<sup>27,33</sup> and expelling threadworms<sup>33</sup>. It provides relief from bleeding gums<sup>34</sup> and painful joints<sup>34</sup>, and is beneficial for bronchitis<sup>33</sup>.

Furthermore, Bamboo manna treats strangury<sup>27,33</sup> and gonorrhoea<sup>33</sup>. It is effective in managing amenorrhoea<sup>33</sup> and aids in wound healing<sup>33</sup>. It is used for skin eruptions<sup>34</sup> and is beneficial for tuberculosis<sup>30,33</sup>. It provides relief from asthma and cough<sup>34,36</sup>, and treats urinary infections<sup>34</sup>.

Bamboo manna is also used to manage arthralgia<sup>33</sup> and ulcers<sup>27,33</sup>, and it helps in cases of general debility<sup>27,33</sup>. It alleviates burning sensations<sup>33</sup> and skin discolouration<sup>33</sup>, and is effective for lumbago<sup>33</sup>. Additionally, it is beneficial for ophthalmopathy<sup>33</sup> and various skin diseases<sup>33</sup>. Bamboo manna is also used to manage dysmenorrhoea<sup>33,34</sup> and general debility<sup>27</sup>.

**Corrective**

Pure honey, Mastagi, *Zizyphus sativa*, *Aloe barbadensis*, *Rosa damascene*, *Crocus sativus*<sup>30,31</sup>

**Substitute**

Sandalwood (*Santalum album*), Purslane seeds (*Portulaca oleracea*), Borax<sup>25</sup>

**Dose**

- 1-3 grams<sup>24,25,31</sup>
- 3.5-7 grams<sup>30</sup>

**Taste**

Tasteless<sup>29</sup>

**CONCLUSION**

Bamboo manna, or tabasheer, encapsulates a rich history of medicinal use across traditional practices such as Ayurveda and Traditional Chinese Medicine. This review underscores its diverse pharmacological properties and therapeutic potential, which are largely attributed to its high silica content and unique chemical composition.

Historically esteemed for its health benefits, Bamboo manna has been employed to address a variety of ailments. Its applications range from promoting bone health and enhancing skin care to supporting digestive functions and treating respiratory and urinary disorders. Unani literature particularly highlights its roles as a cardiac

tonic, desiccative, refrigerant, and stomachic, with additional benefits for conditions such as leucorrhoea, palpitations, syncope, stomatitis, and more.

Modern research has validated some of these traditional uses, revealing the structural and compositional aspects of Bamboo manna that contribute to its efficacy. The presence of silicon, essential for various physiological processes, underscores its potential in promoting skeletal health, enhancing immune function, and supporting overall vitality.

Despite the promising therapeutic effects documented in historical and modern contexts, the scientific exploration of Bamboo manna's mechanisms and clinical efficacy is still ongoing. Further research is warranted to substantiate its traditional uses and to explore its potential applications in contemporary medicine. This would involve detailed studies on its bioavailability, pharmacodynamics, and long-term safety profiles.

In summary, Bamboo manna holds significant promise as a natural remedy with broad therapeutic applications. As the understanding of its properties deepens through ongoing scientific inquiry, Bamboo manna could play a vital role in integrative medicine, offering natural solutions for various health conditions. This review highlights the need for continued research to fully harness its medicinal potential and validate its use in modern therapeutic practices.

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This research did not involve human participants, animal subjects, or any material that requires ethical approval.

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This study did not involve human participants, and therefore, informed consent was not required.

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