

REVIEW OF *MASOORA (ERVUM LENS LINN.)* IN CLASSICAL TEXTS

[Priyanka Sanagala¹](#), [Anuradha K N²](#), [Sahana T³](#), [Anoosha Adiga⁴](#), [Shrikanth Acharya⁵](#)

PG scholar^{1,3,4,5}, Assistant Professor², Department of Dravya Guna, SDM College of Ayurveda and Hospital, Hassan, Karnataka, India

Corresponding Author: priyasanagala@gmail.com

<https://doi.org/10.46607/iamj1810082022>

(Published Online: August 2022)

Open Access

© International Ayurvedic Medical Journal, India 2022

Article Received: 04/07/2022 - Peer Reviewed: 25/07/2022 - Accepted for Publication: 27/07/2022

**ABSTRACT**

The drug *Masoora* botanically identified as *Ervum lens* Linn. is an annual leguminous herb belonging to Fabaceae family. It was mentioned under *Shimbidhanya* of *Annadravya varga*. It has *Madhura*, *Kashaya rasa*, *laghu*, *Ruksha guna*, *Sheeta veerya* and *Madhura vipaka*. Due to its *Sheeta virya*, *Madhura rasa* and *Madhura vipaka*, it acts as *pitta shamaka*. The *Beeja* possesses *Balya*, *Medohara* and *Varnya* properties. Though the drug is not in practice therapeutically, it is indicated in many skin disorders like *vyanga*, *vrana* as it has ferulic acid and luteolin as active compounds which inhibit melanin synthesis, it is also proven to have anti-fungal properties. Apart from skin disorders, it is found to be effective in *chardi* and *atisara* as it does *stambhana karma*.

Keywords: *Masoora*, *Ervum lens* Linn., *Annadravya*, Ayurveda

INTRODUCTION

The drug *Masoora* is botanically identified as *Ervum lens* Linn. an annual herb belonging to Fabaceae family. It was mentioned under *Simbidhanya* of *Annadravya varga*. The seeds of *Masoora* are lens-shaped, smooth, 4mm thick with greyish brown color cotyledons. *Masoora* is used since ancient times as it has

drug properties indicated in many disorders like *Vyanga* (melasma) and *Vrana* (ulcers).

Historical background of *Masoora*

The literature of *Masoora* obtained from various authentic texts of Ayurveda can be compiled under the following headings:

Vedic period

Garuda purana: *Masoora* is mentioned under *Dhanya varga*¹

Agni purana: *Masoora* is identified as *Ervum lens* Linn. belonging to Leguminosae²

Sambhitha Kala

Charaka Samhita: In *Sutrasthana*, *Masoora* was mentioned in *Shamidhanya varga*³.

Susrutha samhitha: *Masoora* is mentioned in *Mudgadi varga*⁴.

Astanga Sangraha: *Masoora* is mentioned in *Simbi dhanya varga*. When taken internally it is *Sangrahi*, and when used as *lepa* it is good *varnya*⁵.

Astanga Hridaya: In *Sutrasthana*, *Masoora* is mentioned under *Shimbi dhanya varga*. In *Uttara sthana* the use of *Masoora* along with *ksheera* and *ghrita* for *Vyanga* is mentioned⁶.

Nighantu Kala

Dhanwantari Nighantu: Acharya has included *Masoora* in *Suvarnadi varga* and is said to have two varieties *Krsna* and *pandu*⁷.

Madanapala Nighantu: In this text, the drug *Masoora* is described under *Simbidhanya varga* of *aa-hara dravya*. He had mentioned two varieties of *Masoora* i.e *pita* and *pandu (mangalya)*⁸.

Kaiyadeva Nighantu: The drug is mentioned under *dhanya varga*⁹.

Bhavaprakasha Nighantu: He had included *Masoora* in *Simbidhanya* of *dhanya varga*¹⁰.

Raja Nighantu: The drug *Masoora* is incorporated under *Simbidhanya* of *shaalyadi varga*¹¹.

Plant profile of *Masoora*

Local name: *Masoora*

Botanical name: *Ervum lens* Linn.

Family: Fabaceae

Taxonomical position of *Masoora*¹²

Kingdom	: Plantae
Division	: Angiosperms
Order	: Fabales
Class	: Dicotyledonae
Family	: Fabaceae
Genus	: <i>Ervum</i>
Species	: <i>lens</i>

Vernacular Names¹³

Sanskrit: *Masoora*, **Arabic:** Adas, **Assamese:** Masur-Moha, **Bengali:** Masuri, **English:** Lentil, **Gujarathi:** Masoor, **Hindi:** Masur, **Kannada:** Masura Bele, **Malayalam:** Chanampayar, **Marathi:** Masura, **Punjabi:** Musri, **Persian:** Mirjumak, **Tamil:** Masoor, **Telugu:** Masura Pappu, **Urdu:** Masur

Etymology of *Masoora*

“*Masyathi parinaamathi paake madhuro laghuscha iti*”

Masura is *madhura vipaka* and is easily digestible¹⁴.

Table no 1: Paryaya¹⁵

Synonyms	B. Ni	R. Ni	Dh. Ni	K. Ni	M. Ni	Meaning
<i>Mangalya</i>	+	+	+	+	+	It brings all good fortune
<i>Masurika</i>	+	-	-	+	+	It is madhura vipaka and easily digestible
<i>Prthu</i>	-	-	+	-	-	Seeds are abundant
<i>Pitta bhashajam</i>	-	-	+	-	-	It alleviates pitta on consumption
<i>Madhura</i>	-	-	+	-	-	It is having madhura rasa
<i>Pandura</i>	-	-	-	+	+	Seeds are pale in color
<i>Sura</i>	-	+	-	-	-	seeds
<i>Supya</i>	-	-	+	-	-	Seeds are used to make soup
<i>Guru vija</i>	-	+	-	-	-	Seeds are big
<i>Raaga daali</i>	-	+	-	-	-	Seeds are colored
<i>Prthu vijaka</i>	-	+	-	-	-	Seeds are abundant
<i>Kalyana vija</i>	-	+	-	-	-	Seeds are considered auspicious

Table no 2: Gana vargeekarana

Text	Gana
Charaka Samhita	Shamidhanya varga
Susrutha Samhita	Mudgadi varga
Astanga hridaya	Simbidhanya varga
Astanga sangraha	Simbidhanya varga
Dhanwantari Nighantu	Suvarnadi varga
Madanapala Nighantu	Simbidhanya varga
Raja Nighantu	Shaalyadi varga
Kaiyadeva Nighantu	Dhanya varga
Bhavaprakasha Nighantu	Dhanya varga

Varieties:

According to Dhanvantari Nighantu¹⁶:

1. *Krsna (Masoora)*
2. *Pandu (Mangalya)*

According to Madanapaala Nighantu¹⁷:

1. *Pita*
2. *Pandu (Mangalya)*

Morphology¹⁸

A small, erect, softly pubescent herb, branching from the base.

Leaves: Compound, leaflets are 4-6 pairs, sessile, lanceolate, often mucronate, rachis ending in a short bristle. **Inflorescence:** Raceme, **Flower:** 2-4 flowered, peduncles are as long as the leaves, white, rose, red, or violet flowers are borne solitary or in racemes. **Calyx:** Linear, twice as long as the tube, silky, **Corolla:** Little longer than the calyx teeth, pale purple, **Fruit:** Pod, rhomboid, oblong, about 1.3 cm long, smooth. **Seed:** Usually 2, compressed, grey with minute spots.

Pharmacognosy: (seed)¹⁹

Macroscopic features:

Seeds are lens-shaped, smooth, about 4mm thick, greyish- brown and faintly mottled.

Microscopic features:

Seed testa consists of a single layer of epidermis composed of palisade-like columnar and sclerenchyma cells with a tiny projection and a light, transparent line, followed by a single layer of hypodermis consisting of the beaker or dumbbell-shaped cells. Cotyledons consist of a thin layer of upper and lower epidermis covered with a thin cuticle, epidermis composed of rectangular cells oriented along their long axis, mesophyll consisting of rounded or oval parenchymatous cells, generally filled with simple starch grains showing striations, and a fissured hilum. The starch grains are mostly 30-40 microns in diameter.

Powder microscopy:

Cream colored shows black particles due to pieces of testa, fragments of thick-walled, elongated, oval to polygonal cells of testa and a few sclerenchymatous cells in surface view, wavy palisade like cells and simple, round to oval, starch grains upto 40 microns diameter with striations and a fissured hilum.

Table no 3: Physical constants:

Foreign matter	Not more than 1%
Total ash	Not more than 3%
Acid-insoluble ash	Not more than 0.5%
Alcohol soluble extractive	Not less than 6%
Water soluble extractive	Not less than 10%

T.L.C:

T.L.C of the alcoholic extract on silica gel G plate using n-Butanol: Acetic acid: Water (4:1:5) shows exposure to iodine vapor in six spots at Rf. 0.11, 0.40, 0.44,

0.50, 0.65 and 0.80 (all yellow). On spraying with Ninhydrin reagent and heating the plate for about 10 minutes at 110⁰ centigrade, seven spots appear at Rf. 0.11, 0.18, 0.24, 0.33, 0.44, 0.50 and 0.65 (all pink).

Table no 4: Rasa Panchaka

Text	Rasa	Guna	Virya	Vipaka	Doshagnata
C. S	Madhura, kashaya	Laghu	sheeta	-	Kapha-pitta hara
S. S	Madhura	-	-	Madhura	-
DH. N	Madhura, kashaya	Laghu	Sheeta	-	Kapha-pitta hara, Vata kara
R. N	Madhura	Laghu	Sheeta	-	Kapha-pitta hara, Vata kara
K. N	Madhura, kashaya	Laghu, Ruksha	Sheeta	Madhura	Rakta-pitta hara, Kapha hara
B. N	Madhura	Laghu	Sheeta	Madhura	Kapha-pitta hara
M. N	Madhura	Laghu	Sheeta	Madhura	Kapha-pitta-rakta hara

Karma:²⁰

Adhmaanakaraka, Sangrahi, vatacara, jwaraghna, balya

Rogagnata:²¹

Raktavikara, vibandha, jwara, jeerna vrana, chardi, atisara, raktaarshas, vyanga, urdhwavata

Chemical composition²²

Tricetin, luteolin, a diglycosyldelphinidin, two proanthocyanidins (seed coat), phenolic acid, p-coumarin

and ferulic acid, four kaempferol triglycosides, 4 (R)-4-hydroxyargenine, triterpene alcohols, 3-oxosteroids, vitamin B and proteins (seeds), pinitol digalactoside-ciceritol, kaempferol glycoside, 3,4,7 – trihydroxyflavone (cotyledons), indolyl acrylic acid, lenticin, tricetin, luteolin, trans-p-coumaric acid, syringic acid, aflatoxin and variabilin (plant)

Pharmacological activities: Hypocholesterolemia, antifungal, antifeedant²³

Table no 5: Formulations and preparations:²⁴

Formulation	Indications
Rohinyadya ghrta	Trishna, aruchi
Prapaundarikadi lepa	Vatarakta
Sarvaatisaranashaka yavagu	Atisara
Masoora ghrta	Vyanga, nilika
Mukhadooshikari lepa	Yavana pidaka, varnya
Trayantadi kashayam	Jwara, daha, raktapitta, yakrit vikara

Distribution: It is grown throughout North India, particularly in Uttar Pradesh, Madhya Pradesh, Bihar, west Bengal, and to a small extent in Punjab, Rajasthan, Maharashtra, and Gujarat.²⁵

Propagation and cultivation: It is grown in situations up to a height of 3450m and on a variety of soils, such as light loam and alluvial soils of north India, black cotton soils of peninsular India, and low-lying lands in Punjab. It tolerates moderate alkalinity. In the case of black cotton soils, the land is ploughed soon after the monsoon and brought into a rough tilth. Sowing is usually done in October-November along with other rabi crops. Seeds are sown broadcast or in rows 22-30 cm apart. The seed rate varies from 10-40 kg per acre

depending upon whether it is sown pure or in admixture with other crops. The crop is ready to harvest in about 3.5 months. The yield of seeds ranges from 140-280 kg per acre when grown mixed or under dry cultivation and from 360-460 kg when sown pure on irrigated land. The crop is not subjected to any serious disease or pest²⁶.

Trade and commerce: Major areas of production of lentils in India are located in Madhya Pradesh, Bihar, Uttar Pradesh, and west Bengal. Based on the size of seeds, lentil is classified in the trade as bold, medium, and small. The bold type fetches more price²⁷.

Retail market price- Rs. 90/- per kg

Ekamoolika prayoga:

1. **Atisaara:** *Masoora ghruta*²⁸
2. **Grahani roga:** Paste of *sunthi* and *bilwa* fruit should be taken with *Masoora* soup²⁹
3. **Chardi:** The parched flour of *Masoora* mixed with honey and churned with the juice of *dadima* checks vomiting caused by *tridosha*³⁰.
4. **Vyanga:**
 - a) *Masoora* grains fried and dehusked, pounded with milk, and mixed with *ghrita* and honey applied locally cure *vyanga*³¹
 - b) *Masoora* pounded with milk and mixed with *ghrita* when applied on the face by a week becomes lustrous^{32,33}

DISCUSSION

Masoora was included in *Simbidhanya* of *Annadravya* *varga* by different acharyas which have *Madhura*, *Kashaya rasa*, *Laghu*, *Ruksha guna*, *Sheeta veerya*, and *Madhura vipaka*. Due to its *Sheeta veerya*, *Madhura rasa*, *Madhura vipaka* it acts as *Pitta shamaka*. It is indicated in many skin disorders like *Vyanga* and *Vrana*. It possesses ferulic acid and luteolin as active compounds which inhibit the synthesis of melanin through the inhibition of tyrosinase catalytic activity³⁴ and tricetin in *Masoora* has anti-fungal properties. It is also indicated in *Atisaara* and *Chardi*, as it has *Kashaya rasa*, which does *Stambhana karma*. Due to the presence of proteins and vitamins, it can also be given in *Dourbalya*.

CONCLUSION

The present review infers that the drug *Masoora* is in use since the ancient period. It is indicated in various disorders like *Atisara*, *Grahani*, *Chardi*, *Vyanga*, and *vrana*. The drug is not in practice therapeutically, but one can use it in the above-mentioned indications as it has medicinal properties.

REFERENCES

1. Pandey R, Hindi translation on Garuda Purana, dhanya varga, ch. 169, Varanasi, Chowkhamba Vidyabhawan, 2005, P 193
2. Acharya B U, Hindi translation on Agnipurana, ch 5, verse 11, Varanasi, Chaukhambha Sanskrit sansthan, 1998, P 186
3. Sharma P V, English translation on charaka samhitha, sutrasthana, Annapana vidhi, ch 27, verse 28, Varanasi, Chaukhambha Orientalia, 2008, P 498
4. Murthy K R, English translation on susrutha samhitha, sutrasthana, Annapana vidhi, ch 46, Verse 30, Varanasi, chaukhambha Orientalia, 2004, P 375
5. Murthy K R, English translation on Astanga Sangraha, Sutrasthana, Annasvarupa vijnaniya, ch 7, Verse 24, Varanasi, Chaukhambha Orientalia, 2000, P 119
6. Murthy K R, English translation on Astanga Hridayam, Sutrasthana, Annasvarupa vijnaniya, ch 6, verse 17, Varanasi, Krishnadas academy, 1999, P 77
7. Kamat D S, English translation on Dhanvantari Nighantu, suvarnadi varga, ch. 6, verse 85, Delhi, Chaukhamba Sanskrit Pratishthan, 2002, p 550
8. Sastry J L N, English translation on Madanapala Nighantu, dhanyaguna varga, ch 10, verse 44, Varanasi, Chaukhambha Orientalia, 2010, P 791
9. Sharma P V, Sharma G P, Hindi translation on Kaiyadeva Nighantu, dhanya varga, ch. 3, verse 71-2, Varanasi, Chaukhambha Orientalia, 2009, p 314
10. Murthy K R, English translation on Bhavaprakasha Nighantu of Bhavamisra, dhanya varga, ch 6, verse 50, Varanasi, Krishnadas academy, p 370
11. Satish Chandra S, Deepika S, English translation on Raja Nighantu of pandit Narahari, shalyadi varga, ch.16, verse 94-5, Varanasi, chaukhambha Orientalia, 2012, p 873
12. India biodiversity portal: 2020, accessed on 20 Oct 2020, Available from <https://indiabiodiversity.org/species/show/264648>
13. Sharma P C, Yelne M B, Dennis T J, Database on Medicinal plants used in Ayurveda, volume -5, New Delhi, central council for Research in Ayurveda and Siddha, 2002, p 235
14. Sastry J L N, Ayurveda oushadha niruktamala, Masoora, ch 347, Varanasi, chaukhambha Orientalia, 2001, p 84
15. . Sastry J L N, Ayurveda oushadha niruktamala, Masoora, ch 347, Varanasi, chaukhambha Orientalia, 2001, p 84
16. Kamat D S, English translation on Dhanvantari Nighantu, suvarnadi varga, ch. 6, verse 85, Delhi, Chaukhamba Sanskrit Pratishthan, 2002, p 550

17. Sastry J L N, English translation on Madanapala Nighantu, dhanyaguna varga, ch. 10, verse 44, Varanasi, Chaukhambha Orientalia, 2010, P 791
18. Kirtikar K.R, Basu B.D, Indian medicinal plants, volume-1, 2nd edition, Papilionaceae, Dehradun, international book distributors, 1987, P 741-2
19. Sharma P C, Yelne M B, Dennis T J, Database on Medicinal plants used in Ayurveda, volume -5, New Delhi, central council for Research in Ayurveda and Siddha, 2002, p 236
20. Sharma P C, Yelne M B, Dennis T J, Database on Medicinal plants used in Ayurveda, volume -5, New Delhi, central council for Research in Ayurveda and Siddha, 2002, p 236
21. Sharma P C, Yelne M B, Dennis T J, Database on Medicinal plants used in Ayurveda, volume -5, New Delhi, central council for Research in Ayurveda and Siddha, 2002, p 236
22. Sharma P C, Yelne M B, Dennis T J, Database on Medicinal plants used in Ayurveda, volume -5, New Delhi, central council for Research in Ayurveda and Siddha, 2002, p 236
23. Sharma P C, Yelne M B, Dennis T J, Database on Medicinal plants used in Ayurveda, volume -5, New Delhi, central council for Research in Ayurveda and Siddha, 2002, p 237
24. Sharma P C, Yelne M B, Dennis T J, Database on Medicinal plants used in Ayurveda, volume -5, New Delhi, central council for Research in Ayurveda and Siddha, 2002, p 237
25. Sharma P C, Yelne M B, Dennis T J, Database on Medicinal plants used in Ayurveda, volume -5, New Delhi, central council for Research in Ayurveda and Siddha, 2002, p 237
26. Sharma P C, Yelne M B, Dennis T J, Database on Medicinal plants used in Ayurveda, volume -5, New Delhi, central council for Research in Ayurveda and Siddha, 2002, p 237
27. Sharma P C, Yelne M B, Dennis T J, Database on Medicinal plants used in Ayurveda, volume -5, New Delhi, central council for Research in Ayurveda and Siddha, 2002, p 237
28. Murthy KR, English translation on Sarangadhara samhitha, madhyama khanda, Sneha Kalpana, chapter 9, verse 25-6, Varanasi, Chaukhambha Orientalia, 1997, p 118.
29. Murthy KR, English translation on Sarangadhara samhitha, madhyama khanda, Sneha Kalpana, chapter 9, verse 25-6, Varanasi, Chaukhambha Orientalia, 1997, p 118.
30. Murthy KR, English translation on Sarangadhara samhitha, madhyama khanda, phanta Kalpana, chapter 3, verse 11-2, Varanasi, Chaukhambha Orientalia, 1997, p 79
31. K. Murthy, Astanga Hrdayam of vagbhata, 6th edition, volume-3, uthara sthana, kshudra roga vijnaniya, chapter 31, verse-28, Varanasi, chowkhamba Krishnadas academy, 2012, P 296
32. Tewari PV and Kumari A, English translation on Vrindamadhava, part 2, Treatment on minor ailments, chapter 57, verse 49, Varanasi, chaukhambha Visvabharati, 2006, p 692
33. Tewari PV and Kumari A, English translation on yoga Ratnakara, 1st edition, part 2, kshudra roga Adhikara, chapter 62, verse- 133, Varanasi, chaukhamba Visvabharati, 2010, P 994
34. Seok Won Lee, Department of Molecular Medicine, Cell and Matri7-Sulfate Attenuates Melanin Synthesis through Inhibition of CREB- and MITF-Mediated Tyrosinase Expression, 2019, 8(4): 87, PMID: [30987288](https://pubmed.ncbi.nlm.nih.gov/30987288/)

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Priyanka Sanagala et al: Review of Masoora (*Ervum Lens Linn.*) In Classical Texts. International Ayurvedic Medical Journal {online} 2022 {cited August 2022} Available from: http://www.iamj.in/posts/images/upload/2149_2154.pdf