

Chapter 10

Mythologically important grasses of the Indian subcontinent

Sumitra Jethy, Sugimani Marndi and Sanjeet Kumar*

Biodiversity and Conservation Lab., Ambika Prasad Research Foundation, Odisha, India

*Email-Id: sanjeetaprf@gmail.com



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Abstract: Across centuries, grasses have emerged as enduring symbols of socio-cultural, religious and ecological resilience. Often overlooked in ecological narratives, they nonetheless provide essential ecosystem services, including carbon sequestration, soil stabilization and water regulation. Closely associated with human civilization over long temporal scales, grasses have transitioned from peculiar ground-layer vegetation to important sources of traditional medicine and integral elements of ritual practice. In India, species such as *Desmostachya bipinnata* (Kūśa) are revered as sacrificial grasses, while *Saccharum spontaneum* (Kāśa) and *Arundo donax* (Nāīa) are prominently used in funerary rites. *Cynodon dactylon* (Dhūrvā) holds a significant place in traditional medicine and *Oryza sativa* remains central to livelihood sustenance and ritual offerings across cultures. The present study highlights grass not only as an ecologically significant taxon but also as a living repository of mythological, medicinal and cultural meaning.

Keywords: Indian mythology, Kusa, *Oryza sativa*, Poaceae

Introduction

Grasses have been an integral part of culture and religion since the day of civilization (Doust, 2007). They have existed, grew and evolved alongside human beings. Humans have utilized them for medicine, thatching, as fodder and food, in sacred rituals and even for entertainment, thus establishing a strong association with grasses (Sharma et al., 2025). Today, India homes a diverse range of grasses estimated to be more than 1500 species, which is about 10 % of the global grass species richness (Mande et al., 2025). In Vedic culture, grasses have an important place as symbols of abundance, continuity, wealth, grains and even death (Table 1). They were used in culinary practices as food grains, plates and sitting mats (Boddupalli, 2024). In religious practices, they were seen as sacred and used as offerings, amulets or charms, sacrificial elements and for worshipping (Sheshadri, 2013). They've also been recorded and reviewed to be used in cloth making,

crystal making, for thatching roofs, weaving baskets and even for preparing acid to be used in electric instruments (Sheshadri, 2013). When it comes to traditional medicine, grasses can be seen from a pharmacological point of view (Roy and Devi, 2025), serving as key ingredients for the preparation of herbal remedies with healing properties.

Table 1: Some Vedic grasses of India (Sheshadri, 2013; Boddupalli, 2024)

Vedic Name	Botanical Identification
Balvaja	<i>Eleusine indica</i>
Darbha	<i>Imperata cylindrica</i> (general)
Durva (Dūrvā)	<i>Cynodon dactylon</i>
Gavedhuka	<i>Coix barbata</i> / <i>Coix lacryma-jobi</i>
Kasha (Kāśa)/ Ashvavala	<i>Saccharum spontaneum</i>
Kusha / Kushara/ Khara darbha	<i>Desmostachya bipinnata</i>
Mridudarbha	<i>Eragrostis ciliaris</i>
Muñja, Munjanaka, Munjata	<i>Saccharum benghalense</i>
Naḷa	<i>Arundo donax</i>
Sara	<i>Saccharum sara</i>
Shashpa	Young sprouting grass (non-specific)
Shumbala	Straw (generic grass residue)
Sugandhitejana	Fragrant grass (unidentified)
Veerana	<i>Andropogon muricatus</i> syn. <i>Chrysopogon zizanioides</i>
Vēṇu	<i>Bambusa arundinacea</i>
Vṛīhi; Shāli	<i>Oryza sativa</i>

Their widespread distribution across diverse habitats, from arid plains and sandy deserts to riverbanks and cultivated hedges, shows both ecological adaptability and human sustainability across centuries. In that context, five grass species (*Desmostachya bipinnata*, *Cynodon dactylon*, *Saccharum spontaneum*, *Oryza sativa* and *Arundo donax*) with mythological importance have been reviewed in the study through a literature survey to illustrate how grasses are not merely structural components of landscapes but active participants in spiritual, traditional medicine and ecological strata of life.

Methodology

A systematic literature survey was conducted to compile information on the grasses with mythological importance. Relevant literature was collected from scientific databases such as Google Scholar, PubMed, Science Direct,

Scopus and Springer Link using keywords including "Vedic grasses", "medicinal uses", "*Arundo donax*", "*Cynodon dactylon*", "Kusha grass", "*Saccharum spontaneum*", "Vrihi" and "religious significance". Data were extracted, categorized and critically analyzed under thematic headings such as botany, medicinal and pharmacological values and ritualistic significance. The collected information was synthesized in a narrative format to provide a comprehensive overview of grasses having mythological significance (Kumar, 2025).

Results and discussion

Among the diverse population of grasses with mythological and folkloric significance, five resilient species were selected for review, symbolizing prosperity and spiritual growth. The present study explores the cultural and spiritual importance of *Arundo donax*, *Cynodon dactylon*, *Desmostachya bipinnata*, *Oryza sativa* and *Saccharum spontaneum*, exploring their symbolic meanings, ritualistic uses in Vedic traditions, geographical distribution and medicinal properties (Table 2).

Arundo donax

Otherwise known as the giant reed, presents a more specialized ritual narrative, restricted primarily to funerary rites such as Pitṛmēdha (Boddupalli, 2024). Native to the Mediterranean but naturalized in parts of India, this species is invoked symbolically as a vessel for crossing from the mortal world to that of the ancestors. Medicinally, its rhizome is said to contain alkaloids with uterine stimulant, hypotensive and neuroactive properties. The grass thus occupies a paradoxical position, a conduit for spiritual passage and a source of powerful physiological action.

Cynodon dactylon

Locally and traditionally known as Dhūrvā grass is a species that blankets much of India up to high altitudes and persists resiliently in both rural and urban environments. In Vedic rituals such as Mahāgnicayana, Dhūrvā is placed between altar bricks, symbolizing regeneration and continuity, which shows in its botanical form, where each of its joints gives rise to new shoots and roots. This regenerative symbolism aligns closely with its medicinal reputation as a powerful stytic, diuretic and wound-healing agent (Boddupalli, 2024). Rich in phenolic compounds and flavonoids, *C. dactylon* bridges ritual metaphor and biochemical efficacy (Tripathi et al., 2025).



Figure 1: Leaves and inflorescence of *Arundo donax*



Figure 2: Flowers of *Cynodon dactylon*



Figure 3: Inflorescence of *Desmostachya bipinnata*

Desmostachya bipinnata

It is commonly known as Kusha or sacrificial grass, thrives in dry, hot regions and desert margins, yet holds one of the most respectable positions in Vedic ritual practices (Sheshadri, 2013). It is integral to the physical construction of sacred spaces, as seating mats, altar-cleaning bundles and has ritualistic implementations in yajñas (Boddupalli, 2024). Meticulous care is given during its harvesting and use, which is accompanied by mantra chanting at every stage, showing how Indian rituals treat ecological elements as sacred. Medicinally, Kusha roots are valued for their cooling, diuretic and astringent properties, addressing disorders of the urinary and reproductive systems, thereby reinforcing the continuity between ritual purity and bodily healing.

Table 2: Ecological distribution, ritual significance and medicinal uses of selected grasses (Boddupalli, 2024; POWO, 2025)

Species	Other names	Distribution/habitat	Ritualistic significance	Medicinal properties
<i>Arundo donax</i> L. (Figure 1)	Giant reed; Nala	Native to west and central Asia to Temperate East Asia; thrives in subtropical biomes	Symbolically used as a vessel to cross into the world of ancestors.	Rhizome: diuretic, emollient, uterine stimulant, hypotensive; contains alkaloids (bufotenidine) with neuroactive and smooth-muscle effects.
<i>Cynodon dactylon</i> (L.) Pers. (Figure 2)	Bermuda grass; Dhūrvā	Native to the temperate and subtropical Old World to Australia; grows in subtropical biomes	Used in Mahāgnicayana as Dūrveṣṭakā, placed between altar bricks symbolizing regeneration and continuity.	Astringent, diuretic, styptic, antiseptic; used for wounds, bleeding piles, cystitis, nephritis, skin diseases; roots recommended for menorrhagia and burning micturition; rich in phenolics and flavonoids.
<i>Desmostachya bipinnata</i> (L.) Stapf	Sacrificial grass; Darbha; Kuśa	Native to the Sahara to Tanzania	Used in yajñas, altar cleaning	Roots: cooling, diuretic, galactagogue,

(Figure 3)		and Indo-China; grows in seasonally dry tropical biomes.	(kūrca), seating mats for priests and deities, integral to Mahāgnicayana rituals with strict procedural sanctity.	astrigent; used for urinary calculi, bladder disorders, dysuria, vaginal discharge, erysipelas; Culms used in menorrhagia, dysentery, diarrhoea.
<i>Oryza sativa</i> L. (Figure 4)	Rice; Vṛhi; Shāli	Native to Asia; Habitat: temperate biome; Cultivated as a food crop	Central to Vedic rituals as Caru, Purōḍāśa and Anna; offerings made to Agni, Indra, Savitr, Āditya in major yajñas (Rājasūya, Pavamānēṣṭi, Kāmyēṣṭi).	Rice water demulcent, refrigerant, diuretic; used in febrile, inflammatory, gynaecological disorders; straw ash for wounds; coloured rice rich in anthocyanins.
<i>Saccharum spontaneum</i> L. (Figure 5)	Kans grass; Kāśa	Native to Sicilia, Africa, Asia, to North and North-east Australia; Habitat: dry tropical biome	Used in funerary rites (Pitṛmēdha); offered to the deceased as spiritual protection during the transition to the ancestral realm.	Whole plant used for dysuria, kidney and bladder stones, dysentery, haemorrhagic conditions; Roots included in Ayurvedic Tripanchmūla formulation.

Oryza sativa

Among the grasses associated with Indian landscapes, *Oryza sativa* occupies a uniquely intimate position, bridging sustenance, ritual and healing. Cultivated across the subcontinent, rice is both a food crop and a ritual substance of profound symbolic weight. In Vedic traditions, Vṛhi is

offered in multiple forms like Caru, Purōḍāśa and Anna across major yajñas, where different varieties of rice are dedicated to deities such as Agni, Indra, Savitr and Āditya to invoke prosperity, spiritual merit and cosmic order (Boddupalli, 2024). This ritual centrality mirrors its medicinal significance; rice water is valued as a cooling, demulcent remedy for inflammatory and urinary disorders, while rice straw and ash are employed in wound healing and digestive ailments.



Figure 4: Panicles of *Oryza sativa*

Saccharum spontaneum

This riverine grass, called as Kāśa or Kans grass, occupies a small space between life and death in the context of rituals. It is found along streams and floodplains across the subcontinent, plays a significant role in funerary rites, where it is offered to the deceased as symbolic protection during their journey to the ancestral realm (Boddupalli, 2024). This association with transition is mirrored in its medicinal applications, as the entire plant is used to alleviate burning sensations, dysuria, haemorrhagic conditions and kidney stones. It is also included in the Ayurvedic formulation Tripanchmūla because of its potential as a purifier and regulator of body fluids, emphasizing its ecological and symbolic alignment with water (Das et al., 2024).



Figure 5: *Saccharum spontaneum* near wetlands

Conclusion

Mythological narratives foster social cohesion by bringing people together through shared stories and rituals and continue to inspire contemporary Indian art, literature and culture. The dynamic presence of mythology in

Indian society showcases its existing relevance and importance. Especially, in Vedic traditions, many grasses are associated with deities, highlighting their divine connection, but the lesser-known facts lie in their uses in purifying rituals and traditional medicine. The selected grasses *Arundo donax*, *Cynodon dactylon*, *Desmostachya bipinnata*, *Oryza sativa* and *Saccharum spontaneum* in the present study highlighted that botanical presence in landscapes is inseparable from cultural memory and embodied knowledge. Their persistence in contemporary urban and semi-urban environments is not merely ecological survival but cultural continuity. Recognizing such species within modern green spaces invites a rethinking of urban biodiversity, not as neutral greenery, but as living archives of ritual practice, traditional medicine and human-nature relationships.

References

- Boddupalli RS. (2024). Traditional knowledge of vedic grasses-their significance and medicinal uses. *Indian Journal of Traditional Knowledge*. 23(3): 224-238.
- Das A, Das K, Mishra S and Kumar S. (2024). *Medicinal Poaceae of India, Volume 1*. Ambika Prasad Research Foundation, Odisha, India.
- Doust A. (2007). Architectural evolution and its implications for domestication in grasses. *Annals of Botany*. 100(5): 941-950.
- Kumar S. (2025). Data collection from literature for biological sciences, medicinal plants research, ethnobotany and pharmacology: a methodological overview. *Journal of Biodiversity and Conservation*. 9(2): 167-169.
- Mande M, Joshi AA, Paramjyothi H, Ratnam J and Sankaran M. (2025). Patterns of grass (Poaceae) species distribution and richness across India. *Global Ecology and Conservation*. 62: e03741. DOI: 10.1016/j.gecco.2025.e03741
- POWO (Plants of the World Online). (2025). Royal Botanic Gardens Kew, United Kingdom. Accessed on 23.12.2025.
- Roy BC and Devi RS. (2025). *Grasses and Sedges of India: Food, Medicinal and Ecological Aspects*. Ambika Prasad Research Foundation, Odisha, India.
- Sharma BP, Behera M, Agrahari D and Kumar S. (2025). *Medicinally and Pharmacologically Important Grass Species of India*. Ambika Prasad Research Foundation, Odisha, India.
- Sheshadri KG. (2013). Grasses and their varieties in Indian literature. *Asian Agri-History*. 17(4): 325-334.
- Tripathi G, Pradhan I, Singh S and Dimri R. (2025). *Cynodon dactylon* (L.) Pers.: an ethnomedicinally important sacred grass in India. *Journal of Biodiversity and Conservation*. 9(3): 102-107.