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Traditional knowledge of Vedic grasses - Their significance and medicinal uses

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Grasses have originated and evolved even before origin of human beings. The grass species are revealed in the Vedic texts with a specific purpose. From the Vedic age, grasses are upheld to be the most sacred as they have been used for different purposes in various rituals. These grasses are used in various sacraments and also used as medicinal herbs that are detailed in the Veda *Saṃhitas*, *Brāhmaṇās*, *Āraṇyakas*, *Upaniṣhads*, Epics, Purāṇas and also in later Sanskrit texts. The *darbha* grass or the sacrificial grass is used to spread the *Yajñavēdi* (*Yajña altar*), to make a seat, used as amulets or charms, for sacred ceremonies and so on. The grasses revealed in the Vedic texts can be classified into wild grasses, cereal and millet crops. Grasses play a major role in the life and development of mankind. The cereal and millet crops revealed in the Vedic texts are still being cultivated by our farmers for the utilization by mankind and cattle on day to day basis as food and fodder, respectively. The grass, *ikṣu*, sugarcane is used to produce sugar and ethanol. They occupy a significant position in many traditional medicines including Ayurveda. There are several potential grasses that produce grass oil which are used in Indian medical systems. The present article elucidates the descriptions of these grasses, their ritualistic and medicinal significances as revealed in the Vedic texts are discussed.

Keywords: Grasses, Medicinal, Ritual, Traditional knowledge, Vedas

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Grasses occupy wide tracts of land in the world. They grow in all types of soil and under all climatic conditions. The grass family exceeds all other plant classes in its economic value and usefulness to the mankind as well as animals. Recognition of various types of grasses and their uses has been handed-down from immemorial times of humanity. Grasses belong to Gramineae (Poaceae) family containing 11,000 species including important cereal crops such as paddy (*vrīhi*), wheat (*yava*), wild rice (*nīvāra*) and millets[1,2]. Poaceae is the largest angiosperm family in the flora of India, and is represented by over 1300 species under 270 genera. Human beings' staple food derives from the grass family. Grasses are known for their endurance, able to withstand being burnt, frozen, drowned, parched, grazed, or trampled upon, and has the ability to regenerate fast. The values of grasses have been revered by ancient civilizations all over the world. Grasses occupy a significant position in many traditional medicines including Ayurveda. There are several potential grasses that produce grass-oil which are used in medical systems like Ayurveda, Allopathy, Homeopathy, Naturopathy and other traditional medicines all over the world[3,4].

Abbreviations: AB - Aitereya Brāhmaṇa; ApSS - Āpastamba Śrauta Sūtra; AV - Atharvavēda; BU - *Bṛhadāraṇyakōpaniṣat*; CU- Chāṃdōgyōpaniṣat; KYV - Kṛṣṇa Yajurvēda; KS - Kāṭaka Saṃhitā; RV - Ṛgvēda; SB - Śatapatha Brāhmaṇa; SV - Sāmavēda; SYV - Śukla Yajurvēda; TA - Taittirīya Āraṇyaka; TB - Taittirīya Brāhmaṇa; API – Ayurvedic Pharmacopoeia India; TS - Taittirīya Saṃhitā; VS - Vājasanēya Saṃhitā

Grasses in the Vedas

The Vedic texts and their allied works are intimately related to Vedic sacrifices, *i.e.*, *Yajñas* and *Yagas*. There is no ritualistic activity without the usage of plant products[5]. Our *ṛṣis* (sages) have identified several types of grasses. There are about 20 grasses have been revealed in the Veda *Saṃhitas*, *Brāhmaṇās*, *Āraṇyakas* and *Upaniṣhads*. Since Vedic period, *kuśa* or *darbha* and other types of grasses have been upheld for their sacredness amongst all the grasses, during performance of Vedic rituals. Sacrificial grass *Kuśa*/*Darbha* (*Desmostachya bipinnata* (L.) Stapf) is spread on the *Yajña Vēdi* (altar). It is weaved into mats that are used for seating, and also shaped into articles such as amulets and charms which are used in religious ceremonies and so on[5-7].

Eighteen (18) grass species are revealed in the Yajurvedic texts for ritualistic and medicinal purposes for their curative effect in different diseases[5-8]. The medicinal values of these species are less known and have remained as traditional knowledge[9]. The grass species such as *Arundo donax* L., *Cynodon dactylon* Pers., *Desmostachya bipinnata*, *Saccharum spontaneum* L., and others are widely used as traditional medicinal care. There are grasses from which aromatic grass oils 'Vetiver oil' are extracted and used[5]. Grass species that are revealed in the Vedic texts, with *mantra*/liturgy references is tabulated in the Table 1.

Grass grains-derived products as food-oblations

In the Vedic texts many items of food-oblations are revealed that are used during the *Yajña/Yagas/Iṣṭi*. In addition, these food items are also meant for human

Table 1 — Grass species revealed in the Vedic texts

S. No.	Vedic Sanskrit name	Common name	Botanical name	Veda references
1.	Balbaja	Indian Goosegrass/ Crowfoot grass	*Eleusine indica*	RV 8-55-3; TS 2-2-8(2); KS 10-10; MS 2-2-5; AV 14-2-23
2.	Darbha/ Kuśa	Sacrificial grass	*Desmostachya bipinnata*	RV 1-191-3, AV 6-43-2, 8-7-20, 10-4-13, 11-6-15, 19-28-1, 19-28-30, 19-28-32, 19-32-1, 19-32-2; TS 1-5-1(4), TS 5-4-5, TS 5-6-4, TS 6-1-1(7); TS 6-2, TS 7-5-8(5); TB 1-3-7(40), TB 3-8-2(5), TB 1-7-6(4), TB 2-7-9 (5), TB 3-2-5(35), Kalpa on TB 3-10-1; TA 2-11, TA 3-8(11); KS 23-1;MS 4-8-7; SB 11-5-3, SB 13-4-3(1); TB 1-7-6(4), 2-7-9(5); KS 23-1; AB 1-3; KB 18-8
3.	Dūrvā/ Pākadūrva	Bermuda grass	*Cynodon dactylon*	RV 10-16-13, 10-134-5, 10-142-8; TS 4-2-9(2), TS 4-2-9(37), TS 5-2-8(3); VS 13-20; SB 7-4-2(11), SB 7-4-2(12); AV 18-3-6
4.	Iṣīkā	Reed grass	*Chionachne gigantea*	AV 12-2-54
5.	Kāśa/ Kaśa	Kansgrass	*Saccharum spontaneum*	RV 10-100-10; TA 6-9(21)
6.	Muñja	Baruwa grass	*Saccharum benghalense*	RV 1-191-3; TS 5-1-9(5), TS 5-1-9(49), TS 5-1-10(5); TB 3-8-1(1); TA 4-5; Kalpa on TB 3-8-1; KB 18-7; SB 4-3-3(16), SB 6-6-1(23), SB 6-6-2(15), SB 6-6-2(16), SB 12-8-3(6)
7.	Sugandhitējana	Vetiver	*Vetiveria zizanioides*	TS 6-2-8(4); KS 25-6; AB 1-28-28; SB 3-5-2 (17); PB 24-13-5
8.	Naḻa	Bamboo reed	*Arundo donax*	TA 6-7(18); Kalpa on TA 6-7
9.	Vēṇu	Thorny bamboo	*Bambusa arundinacea*	RV 1-10-1; TS 5-1-1(4), TS 5-2-5(2), TS 6-1-1(1); TB 1-3-8(22); TE 2-9, TA 5-2(11), TA 5-3(22); MS 3-1-2; SB 6-3-1(31)
10.	Aṇu	Proso millet	*Panicum miliaceum*	TS 5-4-8(37), TS 4-7-4(8), Sāyaṇa on TS 4-7-4; TB 1-3-8(48); VS 18-12; Mahīdhara on VS 18-12; BU (Kāṇva) 6-2-13
11.	Gavīdhuka	Job's tears	*Coix lacryma-jobi*	TS 1-8-9(16), TS 1-8-10(18), TS 4-5-11, TS 5-4-3(10), TS 5-5-9(40); Kalpa on TS 4-5-1; Sāyaṇa on TS 4-5-11; TB 1-3-8(48), TB 1-7-4(24); SB 9-1-1(8), SB 14-1-2(19)
12.	Nīvāra	Wild red rice	*Oryza rufipogan*	TS 1-8-10(18), TS 4-7-4(3); TB 1-3-6(7), TB 1-3-4(26), TB 1-3-8(48), TB 3-3-4(32); TA 10-11(26); KS 12-4; MS 2-6-6, MS 4-4-3, MS 3-4-10; VS 18-12; SB 5-1-4 (14); SB 3-3-5, SB 5-3-3(5)
13.	Priyaṅgu	Foxtail millet	*Setaria italica*	TS 2-2-11(4), TS 2-2-11(61), TS 4-7-4; KS 10-2, KS 10-11; MS 2-1-8; VS 18-12; TB 1-3-4, TB 3-8-14(55); Kalpa on TB 3-8-14; TA 1-3-4; BU 6-3-22
14.	Śyāmāka	Barnyard grass millet	*Echinochloa frumentacea*	TS 1-8-1(2), TS 2-3-2(6), TS 4-7-4(2); MS 2-2-4; VS 18-12; KS 10-2; AV 20-135-12; SB 10-6-3(2), 12-7-1(9); KB 4-12
15.	Gōdhūma	Wheat	*Triticum aestivum*	TS 4-6-4; MS 1-2-8; VS 18-12, VS 19-22, VS 19-89, VS 21-29; TB 1-3-7(41), TB 1-3-8(48), TB 2-6-11(39); SB 2-7-1(1), SB 2-7-1(2), SB 12-7-1(2), SB 12-2-9, SB 12-9-1(5); BU 4-3-22
16.	Vrīhi	Paddy/ Rice	*Oryza sativa*	TS 1-8-10, TS 2-3-1(1), TS 3-4-11, TS 4-7-4, TS 7-2-10(2), TS 7-3-14(35); Sāyaṇa on TS 1-8-10; TB 1-3-8(48), TB 2-4-6(52), TB 3-1-6; KS 10-6, KS 11-5; MS 3-10-2, MS 4-3-2; VS 18-12; SB 12-7-1(9)
17.	Yava	Barley	*Hordeum vulgare*	RV 1-23-15, RV 1-66-3, RV 1-117-21, RV 1-135-8, RV 1-176-2, RV 2-5-6, RV 2-14-11, RV 5-86, RV 7-3-4, RV 8-2-3, RV 8-22-6; TS 4-7-4, TS 6-2-10(3), TS 6-4-10(5), TS 7-2-10(2); KS 25-10, KS 26-5; MS 4-3-2; VS 5-26, VS 18-12, VS 23-30; TB 1-8-4(1); SB 1-1-4(20), SB 2-5-2(1), SB 3-6-1(9), SB 3-6-1(10), SB 4-2-1(2), SB 12-7-2(9); KB 4-12AV 6-30-1, AV 6-50-1
18.	Ikṣu	Sugarcane	*Saccharum officinarum*	TS 6-2-1(1), TS 7-3-16(1); TB 2-5-7(32); MS 3-7-9; VS 25-1; ApSS 2-9-12, ApSS 9-7-7.

consumption after the ritual. Almost all the food-oblations (*havis/havir*) mentioned in the Vedic texts is prepared out of grass-seed derivatives (Fig. 1). These food-oblations are described in Yajurveda *Saṃhitās* and *Brāhmaṇas*. Rice and wheat are the principal food-oblation offered during *Yajña*. Various products of grass grain-derived food-oblations are being used in various sacrificial rituals[7-12]. They are:

1. *Brahmaudana* - Rice cooked and offered to the deity Brahman. The residue is eaten by the priests.
2. *Caru* - A food-oblation cooked of the grains of rice, barley etc.
3. *Purōḍāśa* - A cake made of rice, barley etc. It is baked on potsherds of variable number, on the *Gārhapatya Agni*.
4. *Dhāna* - Grains of barley parched and pounded.
5. *Karambha* - De-husked barley grains, slightly parched and pounded.
6. *Lāja* - De-husked fried rice grains, not pounded previously.
7. *Yavāgu* - It is type of congenial preparation of cereals, like rice, wheat, barley etc.
8. *Māsara* - Beverage obtained from a mixture of the hot watery scum of boiled rice, powdered barley and the extract of some vegetables like ginger.
9. *Nagnahu* - Coarse portion of the parched barley grains.
10. *Odana* - Grains (generally rice) cooked with milk or other items like curd.
11. *Taṇḍula* - The unhusked grains, usually rice.
12. *Parched grain* - Grains / seeds that are cooked by dry roasting.
13. *Saktu* - Powder of parched grains.
14. *Parivāpa*- It is made from parched rice fried in butter.
15. *Pina*or *Śrāddhapiṃḍa*- Cooked-rice made into a ball offered to departed souls. It is a Sanskrit word in the Indian literature.

Various products of rice are used as food oblation, such as *purōḍāśa*, *dhāna*, *karambha*, *parivāpa* and *payasyā*. The TB (1-8-6, 3-2-6, 3-2-7 and 3-2-8) mentioned rice-cake food oblation and is termed as *purōḍāśa*. *Payasyā* is curd and milk blended together. The SB (12-7-2) refers to malted rice as *saṣpāni* and the malted barley is called *tokmāni*. *Yavāgū* or rice-gruel or barley gruel is mentioned in the TB and SB. TB (TB 3-8-14, 3-2-15) mentions *pṛthukā*, *saktu*, *lāja*, *dhānā*, *masūsya* and *karambha* as different products of cereals and legume grains. According to Sayanacharya[13], *pṛthukā* or '*chipitaka*' means flattened rice; *saktu* is the powder of fried rice; *lāja* is puffed rice and looks like white flower. Hence, Sayanacharya poetically states[14] that ।*Lājāvrihiprabhavāḥpuṣpavadvikaśitāḥ*॥- "*Lāja* is the product of paddy de-husked grains and look like white blooming flowers". *Dhāna* means both fried rice and fried barley. Sayanacharya states[13] that *masūsya* is a type of famous paddy that grew in northern India -।*uttaradeśeprasiddhādhānyaviśeṣāḥ*॥. *Karambha* is explained as fried rice and barley mixed with butter. The *Śyāmāka* (*Echinochloa frumentacea* Link) seeds are referred to as very small grains in the CU (8-14-3). In the TS (2-3-3(18), ।*sōmāyavājinēśyāmākaṃcaruṃnirvapēdyaḥklaibyādbibhīyāt*॥, it is revealed that the offering of *Śyāmāka* grains, cures impotency and causes commendable virility. In the *Nakṣatra Iṣṭi*, *Priyaṅgu* (*Setaria italica* (L.) P. Beauvois) is offered as *Caru* (food-oblation) to deity Rudra to obtain plenty of cattle (TB 1-3-4). The AB praises *Priyaṅgu*, ।*bhōjyaṃvāētadōṣadhīnāṃyatpriyaṅgavaḥ*॥ as the best kind of food. During the *Vasōrdhārā Homa*, the sacrificer prays *Agni* and *Viṣṇu* to grant him heaps of *Priyaṅgu* grains, ।*priyaṅgavaścamē* - TS 4-7-4॥. The same request appears in the VS (18-12) too. Preparation of most important grass-grain food-oblations (*havis*) offered to *Agni* in various *Yajña* rituals and the Veda *mantra*/liturgy references are described in the Fig. 1. The food preparations and concepts of the Indian Vedic history are being used by the Ayurvedic medical system[15].

Botanical descriptions of Vedic grasses

The grasses described in the Ṛgveda, Yajurveda, Samaveda and Atharvaveda can be classified into three categories according to the modern botanical classification. They are: (1) Wild grasses, (2) Millet crops and (3) Cereal crops. The botanical names of the grass species, common and Ayurvedic names, their ritualistic utility and medicinal properties are described for each grass species. The scientific names of these grass species are documented as per International Code of Nomenclature (ICBN), from the latest Indian floristic studies (http://flora-peninsula-indica.ces.iisc.ac.in/welcome.php) and the Royal Botanical Gardens, Kew, London. Descriptions and information related to these

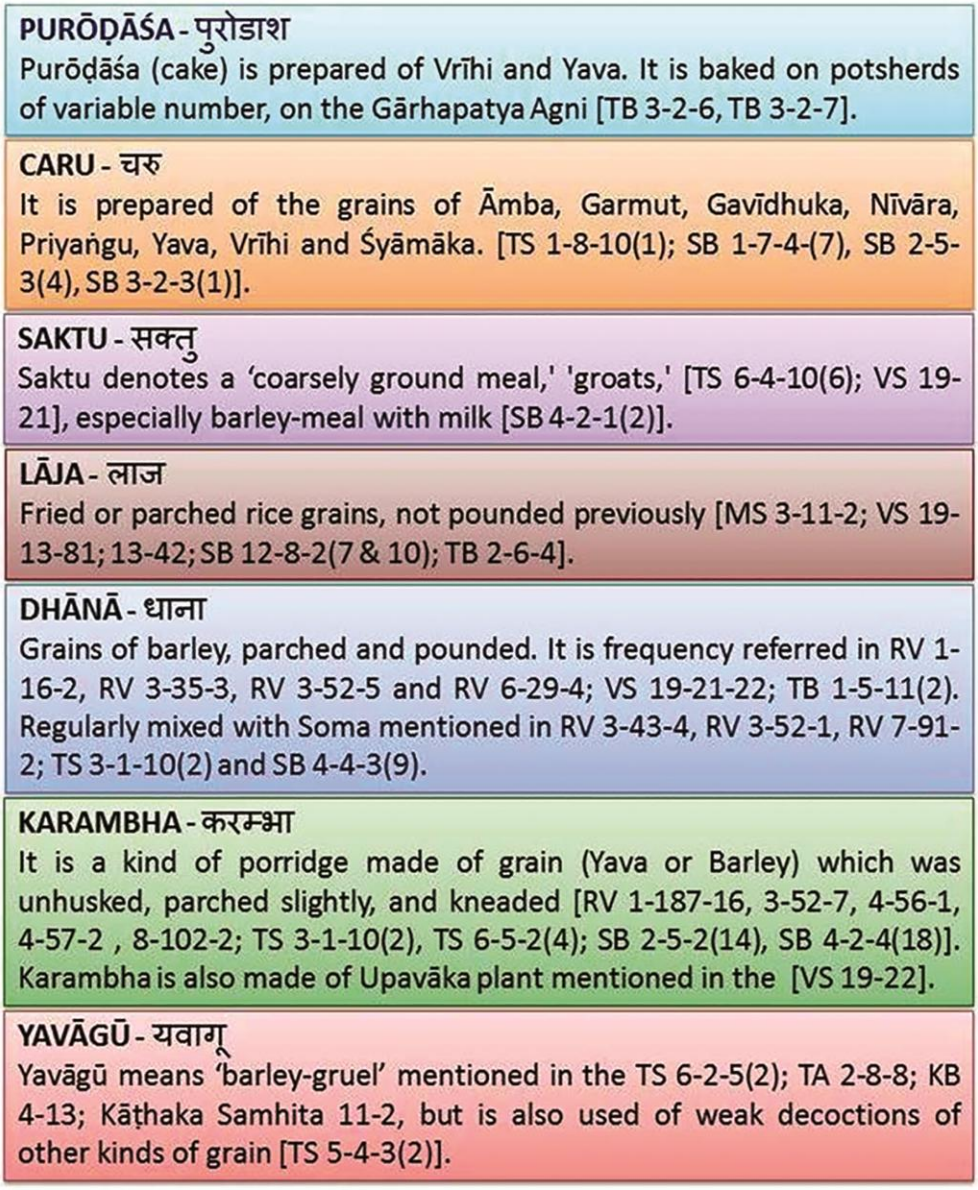

Fig. 1 — Types of Food-oblations (*havis*) offered to *Agni* in *Yajña* Rituals

grasses present in the four Vedic texts and their similarity with the modern botany are highlighted here.

Wild grasses

Desmostachya bipinnata (L.) Stapf in Dyer, Fl. Cap. 7: 632.1900 (Fig. 2a-c).

Distribution

The sacrificial grass grows throughout the plains of India in dry and hot areas and in sandy deserts.

Common names

Sacrificial grass (English); Tharbai (Siddha/Tamil)

Ayurvedic names

Kuśa, Sūchyagra, Yagyabhūṣaṇa, Kshurapatra

Ritualistic utility

Darbha grass is also known as *Piṃjūla* in the Vedic texts. It is used in sacred ceremonies and also as a bundle of grass, *kūrca*, used for cleaning the *Yajña Vēdi*. It is also used as seating mats for priests and gods. It is the most sacred article used in a ritual. Special care is taken in its utilization right from sharpening the knife used to cut it and *Mantras* are chanted at every step. In Mahāgnicayana, it is dipped into the mixture of curd and honey and the Agni is consecrated by sprinkling[8].

Medicinal properties

The darbha plant root is cooling, diuretic, galactagogue, astringent. Used for urinary calculi, and other diseases of the bladder. The culms are used in menorrhagia, dysentery, diarrhoea and in skin diseases. The API recommended the use of the rootstock (50-100 g for decoction) in dysuria, vaginal discharges and erysipelas[16].

Cynodon dactylon (L.) Pers., Syn. Pl. 1: 85. 1805 (Fig. 2d-e).

Distribution

The grass species is present throughout India up to 3,000 m.

Common names

Bermuda grass, Bahama grass, Couch grass (English); Dūb (Unani); Arugampallu (Siddha/Tamil)

Ayurvedic names

Dūrvā, Bhārgavi, Shatvalli, Shatparvā, Tiktaparvā, Shatviryā, Sahastravirya, Shitā, Anantā, Golomi.

Ritualistic utility

In Mahāgnicayana, an altar is constructed to place the *Agni* and perform Hōmas. Mainly bricks are used in the construction. It is ordained that Dūrvā should be arranged between the bricks *i.e., Iṣṭakas* and it is called *Dūrveṣṭakā*. The *Mantra* recited during the arrangement of *Dūrveṣṭakā* exposes the qualities of *Dūrvā*. It has hundreds of joints (Parvans). Fresh shoots emerge out of each joint and have their own roots[8].

Medicinal properties

The grass is reputed as a remedy in epitaxis, haematuria, inflammed tumours, whitlows fleshy excrescences, cuts, wounds, bleeding piles, cystitis, nephritis and in scabies and other skin diseases. It is credited with astringent, diuretic, anti-diarrhoeal, anticatarrhal, styptic and antiseptic properties. The API recommended the dried fibrous root in menorrhagia, metrorrhagia and burning micturation. The phenolic phytotoxins present in this grass are ferulic, syringic, *p*-coumaric, vanillic, *p*-hydroxybenzoic and O-hydroxyphenyl acetic acids, are reported from the plant. The leaves contain tricin, flavone C-glycosides and a flavonoid sulphate[16].

Coixlacryma-jobi L., Sp. Pl. 972, 1753 (Fig. 2f-h).

Distribution

Warm and damp areas up to about 2,000 m, both wild and also cultivated as an annual grass.

Common names

Gavedhukah (Sanskrit); Job's Tears (English); Gurlu, Samkru (Hindi); Gurgur (Bengali); AdaviGuriginja (Telugu); Ashrubija, Manjutti (Kannada); Ran jamdhlo (Konkani); Kattukundumani (Tamil); Kattugotampu (Malayalam); Ran jondhala, Ran maka, Kasai (Marathi); Chaning (Manipuri); Kasi, Kasai (Gujarati); Kaatu Kunthumani (Siddha/Tamil); Garaheduaa, Gargari (Folk).

Ayurvedic names

Gavedhukā

Ritualistic utility

The *Caru* and *Anna* of Gavīdhukā are used in the rituals. In Rājasūya, a coherent rite called "*Dēvasuvām Havīmṣi*" is performed to please the deity Rudra. In this rite, the Caru of Gavīdhuka is offered to Rudra who is the presiding deity of Paśus. Pleased by the oblation of Gavīdhukā Caru, Rudra grants cattle (Paśus) to the sacrifice. In Mahāgnicayana, an altar is built with bricks for the worship of *Agni*. After the sub-ritual Śatarudrīya is completed, the Caru of Gavīdhukā is placed on the last brick of the altar. The Hōma would be incomplete if the Gavīdhukā Caru is not offered. In Vājapēya Yajña, fourteen kinds of Annas are offered to the Agni and that of Gavīdhukā is one of them[8].

Medicinal properties

The decoction of the fruits is used for catarrhal affections of the air passage and inflammation of the urinary tract. Seeds are diuretic. The grass root is used in menstrual disorders. Leaves are used as a drink for inducing fertility in women. The seeds contain *trans*-ferulylstigmastanol and *trans*-ferulylcampestanol, which form part of an ovulation inducing drug. The extract of the seed is used as an immuno-enhancer, used for the prevention of cancer and infections. Seeds exhibit anti-tumour and anti- complimentary activities. Seeds contain coixenolides, a mixed ester of palmitoleic and vaccenic acids, which is an anticancer agent[16].

Arundo donax L., Sp. Pl. 81.1753 (Fig. 2i).

Distribution

Native to Mediterranean region; found in Kashmir, Assam and the Nilgiris, also grown in hedges.

Common names

Great Reed, Spanish-Bamboo-Reed, Giant-Bamboo-Reed (English); Korukkai (Siddha/Tamil)

Ayurvedic names

Naḻa, Potgala, Shūnyamadhya, Dhamana

Ritualistic utility

It is used in obsequies. In *Pitṛmēdha*, the ritual in favour of the manes, a Hōma is performed. According to Kalpa, a bunch of *Naḻa* is kept between the two Palāśa *Paridhis* and a *Mantra* is changed in which the deceased is addressed to make a *Naḻa* a bot, to cross the ocean on his way to the world of *Pitṛs*. The use of *Naḻa* in rituals is seen only in this context[8].

Medicinal properties

The rhizome of the grass is sudorific, emollient, diuretic, anti-lactant, anti-dropsical; uterine stimulant (stimulates menstrual discharge) and hypotensive. The rhizome yields indole-3-alkylamine bases, including bufotenidine and dehydro-bufontenine. The leaves yield sterols and triterpenoids. Bufotenidine possesses antiacetylcholine properties, histamine release activity and is a uterine stimulant. Alkaloids from the flowers produced curarimetic effect of the non-polarizing type[16].

Saccharum spontaneum L., Mant.Alt. 2: 183, 1771 (Fig. 2 j).

Distribution

Throughout the sub-continent and India at the river and stream beds.

Common names

Kāśa (Sanskrit); Wild sugarcane, Kans grass (English); Kaas, Kush (Hindi); Kansh (Bengali); Kahuwa, Khagori (Assamese); Kaki ceruku (Telugu); Hucchukabbu, Kadukabbu (Kannada); Pekkarimpu (Tamil); Nannana (Malayalam); Kamis (Marati); Kāśataṇḍi (Orya); Kansado (Gujarati); Ee (Manipuri); Nānal, Pai Karumbu (Siddha/Tamil)

Ayurvedic names

Kāśa, Kandekṣu, Śvetachāmara.

Ritualistic utility

It is used in obsequies. In Pitṛmēdha, the performer throws away a bunch of Kāśa in western direction of the corpse reciting a *Mantra* thus, "O deceased, please take this bunch of Kāśa. It will protect you from your enemies and Rākṣasas coming from the west[8].

Medicinal properties

Entire plant is cooling, astringent, diuretic, galactagogue. It is used in the treatment of burning sensation, dysuria, dyscrasia, kidney and bladder stones, dysentery, bleeding piles. The root of the grass is diuretic, galactagogue. The API recommends the root in calculus, dysuria and haemorrhagic diseases[16].

Notes

The five-grass roots (*Tripanchmūla*) of Ayurvedic medicine contain extracts of *Saccharum spontaneum*, *Saccharum muñja* Roxb. and *Saccharum officinarum* L. The compound is prescribed as a diuretic[8].

Eleusine indica (L.) Gaertner, Fruct. Sem. Pl. 1: 8, 1788 (Fig. 2 k-l).

Distribution

Throughout the warmer parts of the world. In India, in wet plains and low hills and pasture grounds.

Common names

Crowfoot Grass, Crab Grass (English);

Folk names

Nandiā (Orissa), Mahār Nāchni (Maharashtra), Thippa Ragi (Tamil Nadu).

Ayurvedic names

Nandimukha

Ritualistic utility

It is used as sacrificial fuel (Idhma) in a Kāmyayāga. In order to restore the war like ability and loyalty of his own army, a king should perform this Yāga in favour of the deity Indrāṇi. In this ritual, the Idhma of Balbaja is offered to the *Agni*[8].

Medicinal properties

The plant is used for biliary disorders. In Vietnamese traditional medicine, a decoction of the whole plant is used as stomachic, diuretic, febrifuge, and in sprains. Aerial parts of the plant contain vitexin, 3-Obeta-D-glucopyranosyl-beta-sitosterol and its 6'-O-palmitoyl derivatives[16].

Vetiveria zizanioides (L.) Nash in Small, Fl. Southeast U.S. 67.1903 (Fig. 2 m-n).

Distribution

A perennial grass, cultivated chiefly in Rajasthan, Uttar Pradesh, Punjab and the West Coast.

Common names

Sugandhimula, Reshira, Usheera, (Sanskrit); Vetiver, Khas (English); Khas, Khaskhas (Hindi); Khaskhas, Venaghas (Bengali); Vattiveru, Vattivellu (Telugu); Lavanchaberu, Mudivalaberu (Kannada); Vettiver, Vetivera (Tamil); Ramacham (Malayalam); Vala

(Marathi); Valo (Gujarati); Panni (Panjabi); Vettiver, Vilamichaver (Siddha); Cuscus, Khas (Unani).

Ayurvedic names

Ushira, Bahu-muulaka, Sugandhimuula, Jatāmedā, Indragupta, Nalada, Lāmajjaka, Sevya, Samagandhaka, Jalavāsa, Virana, Aadhya.

Medicinal properties

The root of the grass is infusion used as refrigerant, febrifuge, diaphoretic; stimulant, stomachic, antispasmodic, emmenagogue, astringent, blood purifier. Used in fevers, colic, flatulence, vomiting, spermatorrhoea and strangury. Root oil is used in obstinate vomiting, colic and flatulence. The API recommends the root in dysuria. Major constituents of North Indian laevorotatory oil, (obtained from wild roots) are antipodal terpenoids, while those of South Indian dextrorotatory oils (obtained from cultivated roots) are sesquiterpene ketones and alcohols. The North India Khas oil contains large amounts of khusilal, other sesquiterpenes include khusol, khusimol, khusitone, cadinene and laevojuneol. The South Indian Khas oil constituents are largely nootkatone, vestipiranes and substances of tricyclic zizaane structure. Khusilal is absent in typical dextrorotatory Khas oils (Khare, 2007). The oils from other producing countries are found to be dextrorotatory similar to that from Southern India[16].

Notes

The grass species grows on moist places. Also, it is cultivated for its aromatic roots for scent-making and woven into mats, fans etc[8].

Bambusa arundinacea (Retz.) Roxb., Pl. Cor. t. 79, 1796 (Fig. 2 o-p).

Distribution

Wild throughout India, especially in the hill forests of Western and Southern India.

Common names

Spiny or Thorny Bamboo (English); Qasab, Tabaashir (Unani); Moongil, Moongiluppu (Siddha/Tamil);

Ayurvedic names

Vansha, Venu, Kichaka, Trinadhwaj, Shatparvā, Yavphala, Vanshalochana, Vansharochanā, Shubhā, tugā, Tugaakshiri, Tvakkshiri (Bamboo-manna).

Ritualistic utility

Vēṇu or bamboo is used in building Yajñaśāla. Prācīnavamśa, the long hut under which rituals like Sōmayāga are performed is built with the bamboos heading towards east. In Mahāgnicayana, the Yajña implement, '*Abhri*' made out of Vēṇu is used to dig the earth to prepare Mahāvīra pot in which the *Agni* is kindled. This *Abhri* must be hollow. In Vājapēya, Anna of Vēṇu grains is offered to the *Agni* in favour of Prajāpati[8].

Medicinal properties

Leaf bud and young shoots is used in dysmenorrhoea; externally in ulcerations. The leaf is used in emmenagogue, antileprotic, febrifuge, bechic; used in haemoptysis. Stem and leaf are used as blood purifier (used in leucoderma and inflammatory conditions). Root is poisonous. Burnt root is applied to ringworm, bleeding gums, painful joints. Bark is used for eruptions. Leaf and Bamboo-manna is used in emmenagogue. Bamboo-manna is pectoral, expectorant, carminative, cooling, aphrodisiac, tonic (used in debilitating diseases, urinary infections, chest diseases, cough, and asthma). The plant gave cyanogenic glucoside, taxiphyllin. Bamboo-manna contains silicious crystalline substances[16].

Saccharum benghalense Retz. Observ. Bot. 5: 16 1789 (Fig. 2 q-s).

Distribution

Throughout the plains and low hills of India.

Common names

Muñja, Munjanaka, Munjata (Sanskrit); Munja, Sarpat, Muunj, Kanda (Hindi); Shar (Bengali); Munjagaddi (Telugu); Ramasapu (Kanada); Munjipul, Munjappullu (Siddha/Tamil); Kana (Punjabi); Tirkande (Marathi).

Ayurvedic names

Munja, Bhadramuja, Vāna, Shara, Sara, Rāmshara.

Folk names

Sarpata.

Ritualistic utility

In Mahāgnicayana, *Agni* is produced in a pot called Ukhā or Mahāvīra and Muñja is used to kindle the *Agni*. Burning Muñjas are dropped on the Rukma. A rope woven of Muñja is used to tie the horse in Aśvamēdha ritual. The rope should be as long as 123 to 288 inches. The Brāhmaṇa says that by using the rope of Muñja, the horse gets strength (Ūrk) and activity[8].

Fig. 2 — Wild grasses and products revealed in the Vedic texts - (a) *Desmostachya bipinnata* (*Darbha*/Sacrificial grass) plant, (b) Darbha mat; (c) Sacrificial loops made from Darbha leaves; (d) *Cynodon dactylon* (*Durva*/Bermuda grass) creeping on ground, (e) Bunches of leaves; (f) *Coix lacryma-jobi* (*Gavīdhuka*/Job's tears) plant in flowering; (g) Beads close-up, (h) Necklace from beads (i) *Arundo donax* (*Naḷa*/Bamboo reed) cultivation; (j) *Saccharum spontaneum* (*Kaśa*/Kansgrass) along water beds in flowering; (k) *Eleusine indica* (*Balbaja*/Goosegrass) plant, (l) Panicle close-up; (m) *Vetiveria zizanioides* (*Sugandhitējana*/Vetiver) plants in groups; (n) Vetiver roots in bundles; (o) *Bambusa arundinacea* (*Vēṇu*/Thorny bamboo) plants, (p) Bamboo seeds (q) *Saccharum benghalense Muñja*/Baruwa grass plant population, (r) Muñja tray, (s) Rope rolls

Medicinal properties

The grass is used as a refrigerant. It is useful in burning sensation, thirst, dyscrasia, erysipelas and urinary complaints. The API recommends the use of the root in dysuria, giddiness and vertigo. The stem is a good source of furfural. It reduces sugars when digested with sulphuric acid; glucose, xylose, galactose and rhamnose have been identified in the hydrolysate[16]. (It can be used as a potential source of alcohol).

In Kerala, *Saccharum arundinaceum* is used as Shara for dysuria, diseases due to vitiated blood, erysipelas, leucorrhoea and piles. The grass is known as Rāmshara in Northern India. It can also be used for the production of furfural and yields reducing sugars when digested with sulphuric acid. The hydrolysate contains fermentable sugars, *viz.*, glucose, xylose, galactose and rhamnose[16].

Economic importance

Saccharum benghalense is used as a raw material for thatching roofs. It is used for making baskets. Plant has medicinal value too. Its fiber is used for making ropes. This perennial wild grass, is one of the ecologically successful native colonizer of the various abandoned mines. It forms pure patches on rocky habitats with skeletal soils. It forms extensive root network that binds the soil/pebbles and forms tall thick clumps with high biomass tufts. It is used by low income locals for making ropes, hand fans, baskets, brooms, mat, hut and shields for crop protection. *Saccharum benghalense* is a choice species for vegetation and stabilization of erosion prone rugged slopes and their conversion into biologically productive sites of high socio-economic values[8].

Millet crops

Panicum miliaceum L., Sp. Pl. 1: 58. 1753 (Fig. 3 a-c).

Distribution

The crop is cultivated mainly in Uttar Pradesh, Madhya Pradesh, Andhra Pradesh, Karnataka and Tamil Nadu.

Common names

Aṇu (Sanskrit); White millet, Common Millet, Proso Millet, Hog Millet (English); Vari (Hindi); Chiruvadlu (Telugu); Vari (Marathi); Vari (Gujarati); White French millet, Red French millet (Australia); Panivaragu (Siddha/Tamil); ChināGhās, Fāluudā (Unani)

Ayurvedic names

Chināka, Chēnā

Folk names

Chenaa, Chi-Tibet

Ritualistic utility

The utility of Aṇu is seen in '*Annahōmas of Vājapeya yajña*' ritual. The BU (6-2-13) states the same. By performing this *Annahōma*, the sacrificer obtains plenty of food. Aṇu is an *oṣadhi* yielding small grains. Sāyaṇacharya (TS 4-7-4) says that Aṇu is the small rice (*aṇavaḥsukṣmavrīhayaḥ*). Mahidhara (VS 18-12) gives the synonym as cīnaka (*aṇavaḥcīnakāḥ*). The famous lexicographer, Amarasimha (p. 543) holds the same opinion as that of Sāyaṇacharya[8].

Medicinal properties

Seeds (grains) are used as demulcent; it is also used in diarrhoea. Plant itself is anti-gonorrhoeal. The seedlings contain an alkaloid hordenine (beta-*p*-hydroxyphenethyldimethylamine). Saponins afforded diosgenin and yamogenin isolated from the leaves. The grains contain 10-18% of proteins which include prolamin, glutelin and smaller amounts of albumin and globulin[16].

Notes

It is a highly nutritious cereal grain used for human consumption, bird seed, and/or ethanol production. Unique characteristics, such as drought and heat tolerance, make Proso millet a promising alternative cash crop[5,8].

Setaria italica (L.) P. Beauvois, Ess. Agrost. 51. 170. 178. 1812 (Fig. 3 d-h).

Distribution

The crop is cultivated in Andhra Pradesh, Tamil Nadu, Gujarat, Maharashtra and Karnataka.

Common names

Priyaṅgu (Sanskrit); Italian Millet, Fox-tail Millet (English); Tenai (Siddha/Tamil).

Ayurvedic names

Kangu, Kanguni, Kangunikā, Priyangu Dhānya.

Ritualistic utility

In a *Kāmyēṣṭi* performed in favour of *Maruts* by Grāmakāma, one who wishes to rule the villages. Both *Priyaṅgu* and *Maruts* were born from *pṛśni*, the white cow. As there is brotherhood between *Priyaṅgu* and Maruts, the Caru of *Priyaṅgu* is dear to them. That the

Priyaṅgu is dear to Maruts is also supported by the KS. In *Nakṣatrēṣṭi* too Priyaṅgu is used as Caru. In *Aśvamēdha*, Annahōma is performed as a subordinate sacrifice throughout the night as read in Kalpa. One of the materials used in the Annahōma is *Priyaṅgu*[8].

Medicinal properties

Plant is used as a sedative to the gravid uterus. Grains are used for alleviating pain after parturition. It is applied externally in rheumatism. Analysis of a de-husked sample (79% of whole grain) contains protein 12.3, fat 4.3, minerals 3.3, crude fibre 8.0, and other carbohydrate 60.9%. The principal protein of the millet is prolamin (48%), albumin and globulin together form 13-14% of the total protein, and glutelin 37%. The oxidation of unsaturated fatty acids, present in the grain, during the cold winter months is reported to yield toxic substances[16].

Notes

The grain is reported injurious to horses. Overfeeding affects kidneys and causes swelling and inflammation of joints.

Echinochloa frumentacea Link, Hort. Berol. 1: 204, 1827 (Fig. 3 i-j).

Distribution

The crop is cultivated mainly in Karnataka, Tamil Nadu, Uttar Pradesh and Madhya Pradesh.

Common names

Śyāmāka (Sanskrit); Japanese Barnyard Millet (English); Kudrraivalipillu (Siddha/Tamil).

Ayurvedic names

Śyāmāka

Folk names

Shamā, Sānvā

Ritualistic utility

In Rājasūya, a rite called *Dēvasuvām Havīmṣi* is performed. In this rite, the Caru of *Śyāmāka* is offered to the deity of Soma. The offer of *Śyāmāka* Caru to Soma is also ordained by the SB. ManyKāmyēṣṭis are recommended for various ends like attaining Svarga, Rājya, Brahmavarcas and relief from impotency. In the above stated Iṣṭis, *Caru*or *Purō Dāśā* prepared of *Śyāmāka* are offered to Soma and other deities. The Anna of *Śyāmāka* is one of the fourteen kinds of Annas offered to *Agni* during the rite of *Anna Homas* in *Vājapēyayajña*. Śyāmāka is the best of all *Oṣadhis*. May be that is the reason, the sacrificer asks Agni and Viṣṇu during the Vasōrdhāra Hōma to grant him heaps of *Śyāmākas*[8].

The lightness of the seed is alluded to in the AV (19-50-4), where it is spoken of as blown away by the wind. There it is also mentioned as the food of pigeons (AV 20-135-12). The *Śyāmāka* and its seed (*Taṇḍula*) are referred to as very small in the CU (8-14-3).

Medicinal properties

Plant is cooling and digestible, considered useful in biliousness and constipation. The millet has a well-balanced amino acid composition, but is deficient in lysine. Glutelin is the major constituent of protein[16].

Eleusine indica (L.) Gaertner, Fruct. Sem. Pl. 1: 8, 1788.

Distribution

Native to Africa to tropical and subtropical regions of the world.

Common names

Balbaja (Sanskrit); Indian Crowfoot grass, Goosegrass, Yard-grass, Wiregrass (English); Mandla (Hindi); Crab grass (South Africa), Indian goose grass (Fiji).

Ayurvedic names

Balbaja

Ritualistic utility

Balbaja or *Balbuja* is the millet revealed in the *Ṛgveda* (RV 8-99, Valakhilya - 7 and RV 8-55-3) as ‘a hundred tufts of Balbaja, four hundred red hued-mares are mine’. It is also mentioned in the Atharvaveda (14-2-23) as ‘over the ruddy-coloured skin strew thou the grass, the Balbuja’. Balbaja is mentioned in the YV *Saṃhitas* (TS 2-2-8) and is produced from the excrements of cattle. In the KS (10-10) it is stated to be used for the sacrificial litter (*Barhis*) and for fuel. The baskets and other products made of balbaja are recommended as worthy gifts[8].

Balbaja is a grass, which grows where cows and oxen discharge their urine and dung regularly. It is used as *Idhma* / sacrificial fuel (*Idhma* means faggots / fuel used for kindling the *Agni*) in a *Kāmyayāga*. In order to restore the war-like ability and loyalty of his own army, a king should perform this Yāga in favour of the deity, Indrāṇī. In this ritual, the *Idhm* a of Balbaja is offered to *Agni*[8].

Medicinal properties

The whole plant, especially the root, is depurative, diuretic, febrifuge and laxative, and hence is used for

Fig. 3 — Millet crops described in the Vedic texts - (a) *Panicum miliaceum* (*Aṇu*/Proso millet) crop, (b) Panicles; (c) Grains; (d) *Setaria italica* (*Priyaṅgu*/Foxtail millet) crop in flowering, (e) Panicle close up, (f) Immature seed heads, (g) Ears and grains, (h) Grains; (i) *Echinochloa frumentacea* (*Śyāmāka*/Barnyard grass millet) crop; (j) Grains

the treatment of influenza, hypertension, oliguria and urine retention[16].

Notes

The grass species is a common weed in plains, usually in open country and on bunds of paddy fields and other damp places. It is used as a good fodder grass. The seeds of *Eleusine indica* are eaten by human during drought conditions[8].

Cereal crops

Triticum aestivum L., Sp. Pl. 1: 85. 1753 (Fig. 4 a-b).

Habitat

Cultivated as a food crop mainly in Punjab, Haryana, Uttar Pradesh, Madhya Pradesh, Maharashtra, Bihar and Rajasthan.

Common names

Godhuma (Sanskrit); Wheat (English).

Ayurvedic names

Godhuma

Folk names

Gehun

Ritualistic utility

In Vājapēya ritual, the Caṣāla is ordained to be made of the wheat flour superseding the usual wooden one. In the same ritual, a Hōma of Annas of fourteen kinds of grains is ordained and Gōdhūma is one of them. In the Vasōrdhārā Hōma, the sacrificer prays Agni and Viṣṇu to grant him heaps of wheat. In Sautrāmaṇi parched grains of wheat are mixed with Surā and offered to Indra, Sarasvatī and Aśvins[8].

Medicinal properties

Wheat germ oil is rich in tocopherol (vitamin E) content. The presence of ergosterol (provitamin D) has also been reported. Wheat germ is also used for its minerals, proteins and lipid contents. Germ proteins are rich in lysine and possess high biological value. Wheat germ contains haemag-glutinating and ante-pyretic factors, but these are destroyed by toasting. It also contains haemoproteins, possessing peroxidase activity. Bran oil contains tocopherols, but major part of them (68%) is in epsilon form; alpha-tocopherol forms only 11% of the total. Gluten lipids, associated with gluten, contain a high percentage of linoleic acid; lowering of serum cholesterol level has been observed in experiments (lipid-free gluten is devoid of cholesterol-lowering effect)[16].

Oryza sativa L., Sp. Pl. 333.1753 (Fig. 4 c-d).

Habitat

Cultivated all over India as a food crop.

Common names

Vrīhi (Sanskrit); Rice (English); Nell (Siddha/Tamil); Biranj Sāthi (Unani);

Ayurvedic names

Shāli, Vrihidhānya, Tandula, Vrīhi.

Ritualistic utility

Vrīhi (rice) is used in rituals in the form of Caru, Purōḍāśa and Anna. In Rājasūya, an Aṅga called Dēvasuvām Havīmṣi is performed in which the Purōḍāśa of black rice is offered to Agni. In the same Aṅga ritual, a Purōḍāśa of Āśuvrīhi to Savitṛ and another of Mahā Vrīhi to Indra are offered. In Pavamānēṣṭi, a Purōḍāśa of rice is offered to *Agni* reciting a *Mantra*. The offering of this Purōḍāśa cause Brahmavarcas and other results to the sacrificer. In a Kāmyēṣṭi performed in favour of Āditya to obtain immense wealth, the Caru of rice is offered to the deity Āditya[8].

Medicinal properties

Rice water (a water decoction of rice) is used as a demulcent and refrigerant in febrile and inflammatory diseases and in dysuria. Also used as a vehicle for compound preparations used for gynaecological disorders. It is regarded as cooling in haematemesis and epistaxis, and as diuretic. The green culm or stalks are recommended in biliousness. Ash of the straw is used in the treatment of wounds and discharges. Lixiviated ash of straw is used as anthelmintic and in nausea. The API recommends the dried root in dysuria and lactic disorders. The pigments occurring in coloured types of rice are a mixture of monoglycosides of cyanidin and delphinidin. The dark Puttu Rice of India contains a diglycosidic anthocyanin[16].

Hordeum vulgare L., Sp. Pl. 1: 84. 1753 (Fig. 4 e-f).

Habitat

Cultivated as food crop in Uttar Pradesh, West Bengal, Bihar, Madhya Pradesh, Rajasthan, Haryana, Punjab, Himachal Pradesh and Jammu and Kashmir.

Common names

Yava (Sanskrit); Barley (English); Yavam, Saambaluppu (Siddha/Tamil); Barley, Jao Shaeer

Ritualistic utility

The barley and its products have a wide spread range of use rituals. In *Rājasūya*, an Aṅga ritual called *Daśapēya* in which the juice Sōma is offered to the *Agni* is performed. At the end of this ritual, as directed by the Brāhmaṇa, a big cart, filled with Yavas is given to the priest, *Acchāvāka*. This Dāna pleases the deity Varuṇa. In another Aṅga of Rājasūya called '*Dēvasuvām Havīmṣi*' is performed, wherein the Caru of Yava is offered to Varuṇa. In a Kāmyēṣṭi called *Traidhātavīyēṣṭi* which grants several material wishes to the sacrificer. In this Iṣṭi, three Purodāśas are offered to the *Agni* and the second one is of Yava[8].

Medicinal properties

Barley is nutritive and demulcent during convalescence and in cases of bowel inflammation and diarrhoea. It protects and immune system. The API recommends barley in urinary disorders, muscular rigidity, chronic sinusitis, cough, asthma, lipid disorder and obesity. Juice of young barley leaves is seven times richer in vitamin C than oranges, five times richer in iron than spinach, 25 times richer in potassium than wheat; high in SOD (superoxide dismutase), an enzyme that slows ageing of cells. The nutritional quality of the barley depends on beta-glucan fraction of the grain. Beta-glucan-enriched fraction produced cholesterol-lowering effect in hamsters[16].

Oryza rufipogon Griff. Notul. Pl. Asiat.3: 5.1851 (Fig. 4 g-h).

Habitat

Wild rice is a native species of Asia and is widely distributed in the tropics and subtropics except Africa. It occurs at altitudes from 0 to 1000 m. In India it is distributed in Assam, Punjab, Eastern India and Southern India.

Common names

Nīvāra (Sanskrit); Common wild rice, Brown beard rice, Perennial wild red rice, Red rice, Red-bearded rice, Wild red rice (English); Birhni, Karga, Reesa (Hindi); Arroz Colorado, Arrozrojo (Spanish); Riz rouge sauvage (French); Arrozrana, Jingirra, Wild rice (Australia); Arroz-preto, Arroz-vermelho (Brazil); Reis, Wilder roter (German); Padiburung, Padihantu (Indonesia); Khaonok, Khao pa (Laos); Padihantu, Padi yang (Malaysia); Khaophee (Thailand).

Ayurvedic names

Nīvāra

Medicinal properties

Anti-microbial activity is observed in a research study[16].

Notes

Oryza rufipogon is perennial, tufted wild rice. It grows in shallow water, irrigated fields, pools, ditches and sites with stagnant or slow, running water. This species serves as a valuable gene pool that can be used to broaden the genetic background of cultivated rice in breeding programmes[5].

Saccharum officinarum L., Sp. Pl. 1: 54. 1753 (Fig. 4 i-j).

Habitat

Uttar Pradesh, Bihar, Punjab, Maharashtra, Andhra Pradesh, Karnataka, Tamil Nadu and all other states of India.

Common names

Ikṣu, Pundakah (Sanskrit); Sugarcane, Noble cane (English); Eekh, Pundiya, Ganna (Hindi); Kunhiar, Kushyar, Akh (Assamese); Cheruku, Cherukugada (Telugu); Kabbu, Iksu, Pettapattikabbu (Kannada); Karumbu, Pundaram (Tamil); Karibpu (Malayalam); Sherdi (Marathi); Chu (Manipuri); Karumbu, Nanal (Siddha/Tamil); Gannā, Naishakar (Unani).

Ayurvedic names

Ikṣu, Dirgha-chhada, Bhuurirasa, Morata, Asipatra, Madhutrna, Gudamuula, Trnarasa.

Ritualistic utility

The leaves of sugar cane (Ikṣu) are used in the *Ātithyēṣṭi*, connected with the Soma ritual. This *Iṣṭi* is performed in the honour of Soma, the king of *Oṣadhis*[8].

Medicinal properties

Cane Juice is used for restorative, cooling, laxative, demulcent, diuretic, ananti-septic. It is also used in general debility, haemophilic conditions, jaundice and urinary diseases. The API recommends the juice of the stem in haemorrhagic diseases and anuria; and the root in dysuria. Sugarcane juice contains sucrose, glucose and fructose. Non-sugar constituents present in the cane juice are carbohydrates other than sugars. Asparagine and glutamine are prominent amino acids in the juice[16].

Economic importance

Ethanol is generally available as a by-product of sugar production. It can be used as a biofuel alternative to gasoline, and is widely used in cars in Brazil. It is an alternative to gasoline, and may

Fig. 4 — Cereal crops revealed in the Vedic texts - (a) *Triticum aestivum* (*Gōdhūma*/Wheat), (b) Wheat grains; (c) *Oryza sativa* (*Vrīhi*/Rice) crop in panicle stage; (d) Rice grains; (e) *Hordeum vulgare* (*Yava*/Barley) crop, (f) Barley grains; (g) *Oryza rufipogon* (*Nīvāra*/Wild rice) crop in immature panicle stage, (h) Wild rice dehusked grains; (i) *Saccharum officinarum* (*Ikṣu*/Sugarcane) crop in flowering; (j) Sugarcane crop

become the primary product of sugarcane processing, rather than sugar[8].

Conclusions

Science in general and plant science in particular is an integral part of the *Vedas* and the *Upavedas*. Although various terminologies are available now in modern botany, they, in fact, originated from the vast *Vedic* literature. The authenticity of various botanical descriptions is in the *Veda mantras* and in the name of standardization. The fact is that we still continue to research and understand the traditional knowledge as revealed in the *Vedic* texts.

It is evident that the identification and study of grasses is known from Vedic times. Grasses are the major food source all over the world. Although a grass may seem to be insignificant compared to the large trees, it remains a wonderful biological study involving the process of identification, its medicinal uses and its significance in religious customs.

To conclude, there is an urgent need in protecting the traditional knowledge such as the Vedic grasses for future generations. The Vedic botany can be adopted as part of the syllabi at higher levels of education in order to preserve and educate the present and future generations in our traditional knowledge.

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Conflict of Interest

The author has no conflict of interest to declare.

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