



# Yajurveda In The Perspective Of Ancient Plant Invasion In India

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## Abstract:

Ancient literary scriptures help gain an insight into the biodiversity and human sustenance. The Vedas are thus rich sources of information useful for mankind. This inventory limelighted a total number of 28 alien plant species from the Yajurveda belonging to 28 genera of 16 families of angiosperms. On these, 16 species are cultigens and other 12 species have been adapted and naturalized on Indian landmass as wild ones. The former ones help sustain people of Vedic period. The latter ones are presently form an integral part of Indian biodiversity. This inventory will help manage Indian biodiversity and also for its conservation.

**Key Words:** Yajurveda, Alien Plants, Plant Invasion, India.

## Introduction:

Vedas have been proud heritage for India as well as for the entire world being the pioneering Sanskrit literary scriptures. They mirror the wisdom, experiences, observations, economy and social status as well. Yajurveda is one of the four Vedas. Cultural literacy is also important for social reforms and environmental education. It is, therefore, essential, extracting such knowledge from ancient texts systematically on more scientific ground. The present author paved way on this line of thinking unlocking treasure-trove of plant world earlier (cf.Patil, 2017; 2018a,b; 2019a,b,c,d; 2020; 2021a,b,c,d,e; 2023). This communication is an attempt to reveal plant diversity with particular emphasis on bioinvasion in India in ancient past. This aspect of research on Vedas have remained hitherto unstudied. This may help understand in better way management and conservation of Indian biodiversity in present time.

## Methodology:

The data on plant-wealth is obtained from literary sources viz., (i) Plants in Yajurveda (Sarma, 1989). (ii) Shukla Yajurveda Samhita (Shastri, 2007). The names of plants species coined in these sources are in Sanskrit. They have been equated with the recent botanical (Latin) names and also assigned accordingly to their respective

families. Their alien nature is ascertained on the basis of relevant taxonomic sources as mentioned against their names in the Table-I. They are discussed in the light of bioinvasion (plant invasion) on Indian subcontinent in ancient Vedic period of India.

### Results and Discussion:

Total 82 plant species are reported from Yajurveda (Sharma, 1993). This inventory brought to the forefront a total of 28 exotic plant species belonging to 28 genera and 16 angiospermic families. Out of these, the dicotyledonous taxa played fairly major role (17 species, 17 genera and 14 families). The monocotyledons shared relatively lesser representation as compared to the dicotyledons (11 species, 11 genera and 02 families). These taxa are trees (05), shrubs (03), climbers (02) and herbs (18). The figures in parenthesis denote number of species invaded in the Indian landmass in Vedic period. Majority of them (16 species) are cultivated ones, whereas the wild species (12 species) are also fairly represented. The former ones obviously constitute sources of human substance in the said period. The latter are presently an integral part of Indian biodiversity, few of which are invasive in nature. This inventory will help suffice the approaches for biodiversity management and conservation in present time in India.

### Conclusion:

This communication is meant to provide exposure not to the religiousness of the Vedic people but to have a glimpse of nature's exuberance particularly in view of alien status of floral elements in Vedic period of India. The Yajurveda is the next of the four canonical texts of Vedas. It includes methods and principles to perform 'Yajnas' and 'Yagas' as spiritual as well as scientific approaches for welfare of mankind. It is particularly helpful and guidance to the priests. It is mainly in prose form which is replete with the references of plant names in Sanskrit. The present author inventorised such other ancient Sanskrit scriptures from the viewpoint of bioinvasion in India as stated earlier. This is an attempt on the same line of investigation.

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**Table-I: Exotic Plant Species In Yajurveda**

Sr. No. (1)	Sanskrit Plant Name (2)	Botanical Name & Family (3)	Cultivated (C)/ Wild (W) (4)	Habit (5)	Nativity & Reference (6)
1.	Sragvadha	<i>Cassia fistula</i> L. Caesalpiniaceae	C	Tree	(i) North America: Debnath & Debnath, 2017. (ii) Tropical Asia: Mukhopadhyay & Chakraverty, 2008. (iii) West Indis: Singh <i>et al.</i> , 2015.
2.	Karsmarya	<i>Gmelina arborea</i> Roxb. Verbenaceae	C	Tree	Malaya: Medakkar & Sharma 2016c.
3.	Salmali	<i>Bombax ceiba</i> L. Bombaceae	C	Tree	(i) Africa: Gaikad & Garad, 2015. (ii) America & Australia: Mukhopadhyay & Chakraverty, 2008.
4.	Varuna	<i>Crateva magna</i> (Lour.) DC. Capparidaceae	C	Tree	Tropical America: Medakkar & Sharma, 2016a.
5.	Kharjura	<i>Phoenix dactylifera</i> L. Arecaceae	C	Tree	(i) Persian Gulf: Patil, 2019. (ii) Africa: Bailey, 1949.
6.	Kvala, Badara	<i>Ziziphus mauritiana</i> Lam. Rhamnaceae	C	Tree	(i) Tropics & Subtropics: Martin <i>et al.</i> , 1987. (ii) Australia: Veerasamy & Arumugan, 2014.
7.	Arka	<i>Calotropis gigantea</i> (L.) Ait. Asclepiadaceae	W	Tree	Tropical Africa: Reddy, 2008; Chandra Sekar, 2012.
8.	Apamarga	<i>Achyranthes aspera</i> Linn. Amaranthaceae	W	Herb	(i) Tropics: Patil, 2021 c,e (ii) South-East Asia or Africa: Singh <i>et al.</i> , 2015.

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9.	Punarnava	<i>Boerhavia repens</i> var. <i>diffusa</i> (L.) Hook.f. Nictaginaceae	W	Herb	(i) South Africa: Struwig & Siebert, 2013 (ii) Tropical Africa: Panda <i>et al.</i> , 2018.
10.	Soma	<i>Cannabis sativa</i> L. Cannabaceae	W	Herb	(i) Central Asia: Chandra Sekar, 2012. (ii) Caspian Sea Region & Caucasus Mountains: Watt, 1908; Patil, 2019b.
11.	Varsahu	<i>Trianthema portulacastrum</i> L. Aizoaceae	W	Herb	Tropical America: Quereshi <i>et al.</i> , 2014.
12.	Patha	<i>Cissampelos pareira</i> Linn. Menispermaceae	W	Climber	South America: Rajgopal & Panigrahi, 1965; Patil, 2021c.
13.	Balbaja	<i>Eleusine indica</i> (L.) Gaertn. Poaceae	W	Herb	Africa, Temperate & Tropical Asia: USDA-ARS, 2014, Patil, 2021e.
14.	Durva	<i>Cyndon dactylon</i> (L.) Pers. Poaceae	W	Herb	Tropical Africa: Debnath & Debnath, 2017; Wagh & Jain, 2015; Srivastava <i>et al.</i> , 2014.
15.	Nala	<i>Arundo donax</i> L. Poaceae	W	Herb	(i) Africa & Europe: Stewart, 1972. (ii) Asia (Excl. India): Singh <i>et al.</i> , 2015. (iii) Middle East: Lesley, 2020.
16.	Sugandhitejana	<i>Vetiveria zizanooides</i> (L.) Nash. Poaceae	C	Herb	China: Medakkar & Sharma, 2016b.

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17.	Anu	<i>Panicum milliaceum</i> L. Poaceae	C	Herb	(i) Asia (Excl. India): Kaul, 1986. (ii) Transcaucasia & China: Singh & Nigam, 2017.
18.	Govindhuma	<i>Coix lacruma-jobi</i> L. Poaceae	W	Herb	Tropical Asia: Singh <i>et al.</i> , 2015; Patil, 2021e.
19.	Priyangu	<i>Setaria italica</i> P.Beauv. poaceae	C	Herb	(i) Near East (China): Singh & Nigam, 2017. (ii) East Asia: Naik, 1988. (iii) Northern China: Castillo <i>et al.</i> , 2016.
20.	Godhuma	<i>Triticum aestivum</i> Linn. Poaceae	C	Herb	Fertile Crescent: Singh & Nigam, 2017; Patil, 2017.
21.	Sasya	<i>Zea mays</i> L. Poaceae	C	Herb	(i) Central America: Purseglove, 1968. (ii) South America: Stewart, 1972. (iii) Mesoamerica: Janick, 2013.
22.	Yava	<i>Hordeum vulgare</i> Linn. Poaceae	C	Herb	Europe & North America: Dar <i>et al.</i> , 2002.
23.	Khalva, Chanak	<i>Cicer arietinum</i> L. Papilionaceae	C	Herb	(i) Mediteranean Region: Shetty & Singh, 1987. (ii) South Europe: Patil, 2019a,b.



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24.	Sarsapa	<i>Brassica juncea</i> (L.) Czern. & Cass. Brassicaceae	C	Herb	(i) Middle East & Neighbouring Region: Prakash, 1980. (ii) Eastern Europe: Spect & Diederichson, 2001.
25.	Tila, Jartila	<i>Sesamum indicum</i> L. (Syn. <i>S. orientale</i> L.) Pedaliaceae	C	Herb	Africa: Dogra, 2011.
26.	Putika	<i>Caesalpinia bonduc</i> (L.) Gaertn. Caesalpinaceae	W	Climber	North America: Debnath & Debnath, 2017.
27.	Jyesth-Madhu	<i>Glycyrrhiza glabra</i> Linn.	W	Shrub	Arabia, Persian Gulf, Afghanistan, Turkistan, Asia Minor & Siberia: Rajiv Kamal, 1988.
28.	Karvir	<i>Nerium indicum</i> Mill. Apocynaceae	C	Shrub	(i) China, Cochin China: Voight-1845. (ii) Mediterranean Region: Purseglove, 1968. (iii) Persia To Japan: Matthew, 1991. _____