

## Agriculture Crops, Plants, and Trees Revealed in the Śrī Rudram

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Received: 12 August 2019; Accepted: 10 September 2019

### Abstract

*Lord Rudra is the deity mentioned in all four Vēdic texts at multiple places and in multiple forms. Also, Rudra is highly admired in Vēdas, Purāṇas, and mythology. There is a detailed section in praise of Rudra in the Kṛṣṇa Yajurveda (KYV) and Śukla Yajurveda (SYV) Saṁhitās and it is termed as the ‘Śrī Rudram’. The Mantras/liturgies in the Śrī Rudram describe agriculture crops, plants, trees and botanical and agriculture terminology. In Śrī Rudram, one wild grass, seven cereal crops, four legume crops, one oilseed crop, two creepers and 11 trees are revealed. These plants/trees and their derivatives are the key for the ritualistic activities and their significance is described. Yajña is the subject matter of entire Vēda. The general requirements to perform Yajñas and Yāgas are detailed. The crops mentioned in the Śrī Rudram are being cultivated even today for food and fodder. The present article elucidates the botanical facets of the Śrī Rudram with Mantras and their implications.*

Trees and forests augment manifold the beauty of the earth. They are the very basis of human life and the biosphere. Plants are one of Earth’s greatest resources. They are sources of food, medicines and materials with vast economic and cultural importance. They stabilize ecosystems and form the habitats that sustain the planet’s animal life. In Vēdic texts, plants and trees have often been considered as God themselves. The Ṛṣis in the *Vājasaneyā Saṁhitā* (VS), show immense respect towards the trees and say one should have reverence and devotion towards all eatables, grains, medicinal herbs, trees, forests and vegetation. One should hold trees/plants in high esteem because they are an

indivisible part of our lives. Here below are the important verses extracted from the YV that are in praise of plants, trees and forests.

।पृथिव्यासंभवंवनस्पतेशतवल्शोविरोहसहस्रवल्शा  
विव्यगुंरुहेमयंत्वाऽ यग्स्वधितिशतेतिजानःप्रणिना  
यमहतेसौभगायाऽ चिच्छन्नोरायस्सुवीरः॥

[[ pṛthivyā sam bhava vanaspatē śatavalśō vi rōha sahasravalśā vi vayagum ruhēma yam tvāyagg svadhititētījanaḥ praṇināya mahatē saubhagāyācchinnō rāya ssuvīraḥ ]]- **Taittirīya saṁhitā(TS) 1-3-5.**

The *Yajurveda* classified trees into two categories, called *yūpyamulu* and *ayūpyamulu*. The *yūpas* are obtained from

the trees Palāśa (*Butea monosperma*), Bilva (*Aegle marmelos*), Khādira (*Acacia catechu*), Udumbara (*Ficus racemosa*) and Nyagrōdha (*Ficus benghalensis*) to tie animals in *Yajña* and are called the *yūpyamulu*. The rest of the trees are called as *ayūpyamulu*. My Salutations to huge trees and these trees should grow with innumerable branches, flowers and fruits.

सुपिप्पलाभ्यस्त्वौषधीभ्यउद्विगस्तभानान्तरिक्षं  
पृणपृथिवीमुपरैणदृहतेतेधामान्युश्मसी॥

[| supippalābhyastvausadhībhyā uddivagg stabhānāmtarikṣam pṛṇa pṛthivīmuparēṇa drgumha tē tē dhāmānyuśmasī ||] – TS 1-3-6.

My Salutations to the herbaceous plants (medicinal plants), that are being kept at the top of the *yūpa* for the plants to develop more flowers and fruits and to fully ripe.

नमोवृक्षेभ्योहरिकेशेभ्योनमस्तारायनमः॥

[| namō vṛkṣēbhyō harikēśēbhyō namastārāya namaḥ ||] – TS 4-5-8 and VS 16-20-20.

My salutation to the stately trees with green tufts of leaves and pervasively present in huge trees that are useful in various ways.

***In Vēdic texts, plants and trees have often been considered as God themselves. The Ṛṣis in the Vājasanēya Saṃhitā (VS), show immense respect towards the trees and say one should have reverence and devotion towards all eatables, grains, medicinal herbs, trees, forests and vegetation***

नमोवृक्षेभ्योहरिकेशेभ्यः... रोहितायस्थपतयेवृक्षाणां  
पतयेनमः॥ |

[| namō vṛkṣēbhō harikēśēbhyaḥ ... rōhitāya sthapatayē vṛkṣāṇām patayē namaḥ ||] – TS 4-5-2 and VS 16-20.

My salutations to Rudra who is the provider and is omnipresent in the scared trees like Palāśa (*B. monosperma*), Bilva (*A. marmelos*), Aśvat'tha (*Ficus religiosa*), Nyagrōdha (*F. benghalensis*) and also present in general trees.

*Vēdas* are infinite. *Vēda* itself is *Śiva*, and *Śiva* is *Vēdam*.

वेदश्शिवश्शिवोवेदः॥ [| vēda śśiva śśivō vēdaḥ ||]

The hymns of the *Vēdas* contain references to sacred trees and plants on account of their being associated with certain deities and also because of their potent medicinal properties (Dymock *et al.*, 1893). The ritualistic, magical, medicinal and secular significance of trees is well documented (Sudarsana Sarma, 1989; Boddupalli and Ramasastry, 2018; Boddupalli, 2019). *Sthala Vṛkṣās* (derived from Sanskrit, i.e. *sthala* – place; *vṛkṣa* – tree) or sacred trees are found all over in India. Trees have been praised in all Hindu Scriptures, like the *Rāmāyaṇa*, *Mahābharata Purāṇas* etc., and many rituals related to trees have even continued to modern times. Many trees find place with stories of Lord Krishna; like the *kadamba* (*Neolamarckia cadamba*) is always seen with him in most of his pictures. It is said that Lord Viṣṇu lives in *peepal* (*F. religiosa*), Goddess Lakshmi in *neem* (*Azadirachta indica*), Lord Śiva in *bargad* (banyan tree) and others. Even the Jain and the Buddhist scriptures have named many trees as

sacred and all *Tirthankaras* and *Buddhas* are known to have attained enlightenment under specific tree (Edwardes, 1922). The worship of trees in India can be traced to the *Indus Valley Civilization*, as clearly indicated in the *Indus Valley Seals*.

Trees are considered as *Dēvatas* (deities). *Dēvata* means one who keeps giving incessantly. Trees have always been beneficial to us and they possess the divine qualities that qualify them to be addressed as *Dēvatas*. Trees in Indian mythology and folklore are widely considered as sacred and worshipped across the country for their benevolence. Indians believed that certain trees are the abode of gods and goddesses. This is emphasized in the *Śrī Rudram* Mantras at many places. Lord Rudra is considered as '*Vanaspati*', means 'forests and head of forests', indicating that He is in the form of trees/forests.

*Yajña* is the subject matter of the entire *Vēda*. *Yajñas* and *Yāgas* are being performed as spiritual and scientific approaches for the welfare of the people, benefit of the society and for world peace. It is almost impossible to perform *Yajñas* and *Yāgas* without using plants or trees and their related products. Therefore, the plants, herbs, shrubs and the trees revealed in the YV are the vital elements in performing *Yajñas*, *Yāgas*, *Hōmas* and *Iṣṭis* (Boddupalli and Ramasastry, 2015;

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2018; Boddupalli, 2019). For this purpose, we pray Lord Rudra in the *Śrī Rudram* and plead Him to provide the requirements to perform *Yajñas* - as *Yajñēna kalpaṃtām* (TS 4-7-5 and VS 18-1), *Yajñēna kalpētām* (TS 4-7-9) and *Yajñēna kalpatām* (TS 4-7-10 and VS 18-2). Many a times, *Vēda Saṃhitās* do provide the *mantra*, but the very minute details and particulars are well explained in the *Brāhmaṇas*, *Śrauta* and *Gṛhya Sūtrās* or *Purāṇas*. This means, the *Yajñas* and *Yāgās* are proposed in the *Vēda Saṃhitās* and the *Śrauta Sūtrās* (Kashikar and Dandekar, 1958) describe in detail the procedures and on the requirements and other aspects of the same. Similarly, at many places in the *Śrī Rudram*, the term '*Vṛkṣa*' is mentioned, but the details regarding the name and utilization of the plant/tree products are provided in the *Śrauta Sūtrās* or in the *Brāhmaṇa* texts.

### **Rudra and forms in *Vēdas***

Rudra is a deity of the Vēdic period. He finds mention in the *Ṛgvēda* (RV).

|तेनोमित्रोवरुणोअर्यमायुरिन्द्राभुक्षामरुतो जुषंत|  
नमोभिर्वायेदधतेसुवृक्तिस्तोमंरुद्रायमीळुषेसजो

[| tē nō mitrō varuṇō aryamāyurimḍraḥ  
bhukṣā marutō juṣaṃta | namōbhirvā yē  
suvṛktim stōmam rudrāya mīlhuṣē sajōṣāḥ  
||] – RV 5-41-2.

There is a detailed section in praise of Lord Rudra in the *Kṛṣṇa Yajurveda* (KYV) and *Śukla Yajurveda* (SYV) *Saṃhitās*. The name 'Rudra' is mentioned in all seven Kāṇḍas of the *Kṛṣṇa Yajurveda Taittirīya Saṃhita* (KYV-TS).

He provides people with the best education, grants wisdom, eradicates all

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sorrows, and ensures a comfortable life for humans (Sundararama Sastry, 1969, 2012; Prasad Sastry, 2011). He treats the physical and mental illnesses of humans and cattle, alike and removes ignorance (Raghunathachari, 1982). The mere utterance of His name, ‘*Ōm Namaśśivāya*’ (TS 4-5-8), can purify anything (Shanmukha Sarma, 2012). This famous ‘*pancākṣarī mantra*’ occurs in the eight *anuvāka* at the very center of the Rudra Praśna. The 16<sup>th</sup> chapter in the *Śukla*

*Yajurveda Saṃhita* (SYV) and the 5<sup>th</sup> and 7<sup>th</sup> Prapāthakas of the 4<sup>th</sup> Kāṇḍa of the KYV-TS are dedicated to the ‘*Rudra*’ in its entirety. The name ‘*Rudra*’ occurs 98 times in the RV, 113 times in the KYV-TS, 22 times in the SYV, 4 times in the SV and 45 times in the AV. In the Śrī Rudram alone, the name ‘*Rudra*’ occurs 18 times and the name ‘*Śiva*’ occurs 14 times in the Namaka Praśna (Table 1).

Rudra has two major forms, *Ghora* or terrible form and *Śiva* or auspicious form. Quite often the name *Śiva* and *Rudra* are used interchangeably. Hence, *Rudra* is one side and *Śiva* the other side of the same coin. They are not two, but the same. The *Taittirīya Brāhmaṇa* text which interprets the Rudram states: “*Rudra* is verily the fire. He has two forms; one terrible, the other, auspicious.

**Table 1. Frequency of occurrence of the names ‘*Rudra*’ and ‘*Śiva*’ in the Kṛṣṇa Yajurveda Taittirīya Saṃhita (KYV-TS).**

<i>Kṛṣṇa Yajurveda Taittirīya Saṃhita</i> (KYV-TS)								
	Kāṇḍa 01	Kāṇḍa 02	Kāṇḍa 03	Kāṇḍa 04	Kāṇḍa 05	Kāṇḍa 06	Kāṇḍa 07	Total
Rudra	28	25	17	30	26	19	12	157
Śiva	04	01	03	43	08	-	03	62

There is a detailed section in praise of Lord Rudra in the *Kṛṣṇa Yajurveda* (KYV) and *Śukla Yajurveda* (SYV) *Saṃhitās*. The name ‘*Rudra*’ is mentioned in all seven Kāṇḍas of the *Kṛṣṇa Yajurveda Taittirīya Saṃhita* (KYV-TS)

If man does *Yajña*/sacrifice to Rudra by chanting the *Śrī Rudram*, that man pacifies the terrible form of Rudra”. Hence Rudra is considered as a deity who teaches the supreme knowledge (*Mōkṣa Gyāna*) to all and whose energy flows in everything.

### **Formation of Śrī Rudram**

The earliest hymns paying homage to Lord Rudra is the *Śrī Rudram* found in the *Yajurveda* (TS 4-5, TS 4-7 and VS 16). The *Rudrādhyāya* (colloquially Rudram or *Śrī Rudram*) occurs in all four *Yajurveda Saṃhita* texts with minor variations. Conventionally, *Vēdas* are 3 in number – the *Ṛgvēda*, *Yajurveda* and *Sāmavēda*. *Yajurveda* is in the center of the three *Vēdas*. The *Kṛṣṇa Yajurveda Taittirīya Saṃhita* (KYV-TS) is divided into seven Kāṇḍas and the 4<sup>th</sup> Kāṇḍa forms the center of the TS. The *Śrī*



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*Rudram* is in the center of the 4<sup>th</sup> Kāṇḍa. It is believed that those *mantras* that are traditionally significant are placed in the center in order to protect them. These *Yajurveda* hymns that have gained particular importance are the ‘Rudra Namakaṃ’ (TS 4-5-1 to 4-5-11) and the ‘Rudra Camakaṃ’ (TS 4-7-1 to 4-7-11), which constitute the ‘Śatarudrīyam’ or the ‘Śrī Rudram’ or ‘Rudrapraśna’. ‘Rudram’ occurs in all the original 100 branches (*Śākhās*) of the *Yajurveda*, thus giving rise to the name ‘Śatarudrīyam’. शतेशाखासु पठ्यते रुद्रीयं— शतरुद्रीयम् ।।  
[| śatēśākhāsu paṭhyatē rudrīyaṃ - śatarudrīyam ||]

As *Śrī Rudram* is prominent in all the hundred branches (*śākhās*) of *Yajurveda*, it is called the ‘Śatarudrīyam’.

Also, the term ‘Śatarudrīyam’ is revealed at three instances in the KYV-TS.

| ध्यायेत्शतरुद्रीयं जुहोति || [| dhyāyēt śatarudrīyam juhōti ||] – TS 5-4-3(9).

| अन्येशतरुद्रीयं हुत्वा || [| anyē śatarudrīyagum hutvā ||] – TS 5-5-9(40).

| शिवाऽन्यायच्छतरुद्रीयं जुहोति || [| śivānyā yaccharudrīyam juhōti ||] – TS 5-7-3(11).

The popular name ‘*Namaka Praśna*’ is due to the repeated utterance, 187 times, of the word “*Namah* or *Namo*” (salutation). Following this, the ‘*Camaka*

*Praśna*’ is chanted wherein the words “*Ca me*” (meaning ‘and me’), repeated 338 times, hence popularly named ‘*Camakam*’.

The *Mahā Mr̥tyum̐jaya Mantra*, is first revealed in the RV, and is preserved in the TS [1-8-6(11)].

त्र्यंबकं यजामहे सुगन्धिं पुष्टिवर्धनम्  
उर्वारुकमिव बन्धनान्मृत्योर्मुक्षीय मामृतात् ||

[| tryambakaṃ yajāmahē sugandhiṃ puṣṭivardhanaṃ |

urvārukamiva bandhanānmṛtyōrmukṣīya māmṛtāt ||] – RV 7-59-12.

While chanting the *Śrī Rudram*, it is customary after reciting the 11<sup>th</sup> Anuvāka of the *Namaka Praśna*, the additional eight Mantras that are chanted which contain the famous *Mahā Mr̥tyum̐jaya Mantra*, and the other Mantras are revealed in the TS, but elsewhere. The following are the other seven Mantras:

| योरुद्रोऽग्नीयोऽप्सु योऽपोषधीषु योरुद्रो विश्वाभुवनाऽऽ  
विवेशतस्मै रुद्राय नमोऽस्तु ||

[| yō rudrō agnau yō apsu ya oṣdhīṣu yō rudrō viśvā bhuvanāvivēśa tasmai rudrāya namō astu ||] – TS 5-5-9(39).

| तमुष्टुहियः स्विषुः सुधन्वा यो विश्वस्य क्षयति भेष  
जस्य |

यक्ष्वा महेशौमनसाय रुद्रं नमो भिदेवमसुरंदुवस्य ||

[| tamu ṣṭuhi yaḥ sviṣuḥ sudhanvā yō viśvasya kṣayati bhēśhajasya |

yakṣvā mahē saumanasāya rudraṃ namō bhirdēvamasuraṃ duvasya ||] – RV 5-42-11.

| अयं मे हस्तो भगवान् अयं मे भगवन्तरः |

अयं मे विश्वभेषजोऽयं शिवाभिर्मर्शनः ||

[| ayam mē hastō bhagavānayaṃ mē bhagavattaraḥ |

ayam mē viśvabhēṣajōyaṃ śivābhimarśanaḥ ||] – RV 10-60-12.

| येतेसहस्रमयुतंपाशामृत्योमर्त्यायहन्तवे|

तान्युज्ञस्यमाययासर्वानवयजामहे||

[| yē tē sahasramayutaṃ pāsā mrtyō martyāya haṃtavē |

tān yajñasya māyayā sarvānavayajāmahē ||] – Taittirīya Āraṇyakam (TA) 10-57.

| मृत्यवेस्वाहामृत्यवेस्वाहा"|| [| mrtyavē svāhā mrtyavē ssvāhā ||] – TA 10-58.

| प्राणानांग्रन्धिरसिरुद्रोमाविशान्तकः|

तेनान्नेना"प्यायुस्व|

[| prāṇānam graṃdhirasi rudrōmā viśāṃtakaḥ | tēnānnēnāpyāyasva ||] – TA 10-74.

| नमोरुद्रायविष्णवेमृत्युर्मेपाहि||

[| namō rudrāya viṣṇavē mrtyurmē pāhi ||] – TA10-75.

Among these eight *mantras*, three are revealed in the RV, four in the TA and one in the TS. These *mantras* are brought together and merged after the 11<sup>th</sup> Anuvāka of the Namaka Praśna and together are described as ‘*Rudra Namaka*’. By chanting these *mantras*, we pray Lord Rudra to protect us from untimely death. Similarly, after the 11<sup>th</sup> Anuvāka of the Camaka Praśna, a *Śānti mantra* that is routinely recited is obtained from the 3<sup>rd</sup> Kāṇḍa of the TS [3-3-2(4)]. With this, the chanting of the ‘*Śrī Rudram*’ is completed. The three *mantras* that are adopted from the RV into the *Śrī Rudram* are provided with the YV *swara*. The additional *mantras* might have been appended by the *R̥sis*.

### Botanical facets in *Śrī Rudra mantras*

As mentioned in the formation of *Śrī Rudram*, the 11 Anuvākas of the TS 4-5 is called as Namaka Praśna. The 11 Anuvākas of the TS 4-7 is termed as Camaka Praśna. In this article, the *mantras* that are connected to the botany and plant vegetation are provided. The botanical and agricultural terminology provided in the *Śrī Rudram* is explained in detail in conjunction with the literature (Macdonell and Keith, 1982). The plants and trees mentioned in the Camaka Praśna are more in number when compared with the Namaka Praśna. Cereal and legume crops, trees and their derivatives that are required to perform *Yajñas* and *Yāgas* are revealed in the Camaka Praśna of the *Śrī Rudram*. Plants, trees, and crops mentioned in the *Śrī Rudram* are listed in table 2.

### Namaka Praśna - TS 4-5

|नमोवृक्षेभ्योहरिकेशेभ्यनमः||

[| namō vṛkṣēbhyaō harikēśēbhya namaḥ ||] – TS 4-5-2(2).

*Vṛkṣēbhyaḥ* = for trees, Rudra in tree form; *Harikēśēbhyaḥ* = green-coloured trichomes (hair-like structures) on the leaves.

My Salutations to the Lord Rudra who is in the trees tufted with green leaves. I bow my head to the Rudra who lives in the trees with green-coloured trichomes (hair-like structures) and leaves.

This can be explained that some trees containing trichomes (*kēśa* or hair-like structures) on both sides of the leaves, i.e., dorsal and ventral surface of the leaf. Both the leaves and the trichomes (hair-like structures) are containing the chlorophyll

(hari or harita) and hence they are green in colour.

|नमःस्रिपञ्जरायत्विषीमतेपथीनांपतयेनमः||

[| namaḥ saspīñjarāya tviṣīmatē pathīnaṃ patayē namaḥ ||] – TS 4-5-2(3).

**Saspiñjarāya** = tender grass in the colour of red and yellow

My Salutations to the Rudra, whose hair is like tender grass with mixed colour of red and yellow and the great radiating person.

|नमोरोहितायस्थपतयेवृक्षाणांपतयेनमः||

[| namō rōhitāya sthapatayē vṛkṣāṇāṃ patayē namaḥ||] – TS 4-5-2(9).

**Rōhitāya** = Red or Ruby colour; **stapatayē** = Lord Rudra; **vṛkṣāṇām** = for Trees

My Salutations to the ruby-coloured Lord Rudra, He who is the protector, guardian, ruler and the governor of all trees in the Universe.

Here, the red-tree can be attributed to the red-sander or Raktachandan (*Pterocarpus santalinus*) (Fig. 1) belongs to family the Fabaceae.

|नमोभुवन्तयेवारिवस्कृतायौषधीनांपतयेनमः||

[| namō bhuvantayē vārivaskṛtāyauṣadhīnaṃ patayē namaḥ ||] – TS 4-5-2(11).

**Ōṣadhi** = an annual plant or a herb or a plant with medicinal properties. Also, a plant that dies immediately after it produces seeds or a herb that lasts for one year or season.

My Salutations to the Lord Rudra, who nourishes the earth, the bestower of wealth and the protector of plants.

|नमोजघ्न्यायचबुद्रियायच ||

[| namō jaghnyāya ca budhniyāya ca ||] – TS 4-5-6(4).

**Jaghnyāya** = posterior side of cows; **Budhniyāya** = root of a tree. The buttress roots of huge trees or the aerial roots of huge *Ficus* trees.

My Salutations to the Lord Rudra, who is present in the posterior side of cows, as such in calves and in the roots and branches of the trees.

Here, one can observe the large buttress roots formed in huge trees during its growth on the surface of ground. These roots can be seen from trees like *Ficus* species and others.

|नमोवन्यायचकक्ष्यायच ||

[| namō vanyāya ca kakṣyāya ca ||] – TS 4-5-6(9).

**Vanyāya** = those in the forests; **Kakṣyāya** = those trees that are not having the trunk. This means the shrubs, plants, and creepers.

My Salutations to Him, who is in the form of trees in the forests and the creepers in the bushes and in the shaded areas.

|नमोवृक्षेभ्योहरिकेशेभ्यः||

[| namō vṛkṣyēbhyō harikēśēbhyaḥ ||] – TS 4-5-8(7).



**Figure 1.** Raktachandan (*Pterocarpus santalinus*): (a) entire tree, (b) wood, (c) flowering stage, (d) fruiting stage, (e) a log of red sander and (f) red sander wood pieces.



*Vrkṣyēbhyaō*= for trees; *harikēśēbhyaḥ*= green hair-like structures, botanically called the ‘trichomes’.

My Salutations to Lord Rudra, who is in the form of trees and in the green-hair-like

structures, the trichomes, present on the leaves of the trees. This infers that the Lord is present in smallest of the life and largest structures like trees in this Universe.

**Table 2. Agriculture crops, plants, and trees disclosed in the Śrī Rudram.**

Category	Botanical Name	Family Name	Reference
<b>Wild Grass</b>			
1. Śaṣpa (Darbha)	<i>Desmostachya bipinnata</i>	Poaceae	TS 4-5-8(16)
<b>Cereal Crops</b>			
1. Vṛīhi (Rice)	<i>Oryza sativa</i>	Poaceae	TS 4-7-4
2. Yava (Barley)	<i>Hordeum vulgare</i>	Poaceae	TS 4-7-4
3. Gōdhūma (Wheat)	<i>Triticum aestivum</i>	Poaceae	TS 4-7-4
4. Priyaṅgu (Indian millet)	<i>Setaria italica</i>	Poaceae	TS 4-7-4
5. Aṅgu (Proso millet)	<i>Panicum miliaceum</i>	Poaceae	TS 4-7-4
6. Śyāmāka (Barnyard millet)	<i>Echinochloa frumentacea</i>	Poaceae	TS 4-7-4
7. Nīvāra (Wild rice)	<i>Oryza rufipogon</i>	Poaceae	TS 4-7-4
<b>Legume Crops</b>			
1. Māṣa (Black gram)	<i>Vigna mungo</i>	Fabaceae	TS 4-7-4
2. Mudga (Green gram)	<i>Vigna radiata</i>	Fabaceae	TS 4-7-4
3. Khalva (Bengal gram)	<i>Cicer arietinum</i>	Fabaceae	TS 4-7-4
4. Masurā (Lentil)	<i>Vicia hirsuta</i>	Fabaceae	TS 4-7-4
<b>Oil Seed Crop</b>			
1. Tila (Sesame)	<i>Sesamum indicum</i>	Fabaceae	TS 4-7-4
<b>Creepers</b>			
1. Urvāruka (Cucumber)	<i>Cucumis sativus</i>	Cucurbitaceae	TS 1-8-6(1)
2. Soma (Somalata)	<i>Sarcostemma acidum</i>	Asclepiadaceae	TS 4-7-4
<b>Trees</b>			
1. Śrī Gandha (Sandalwood)	<i>Santalum album</i>	Santalaceae	TS 1-8-6(1)
2. Khādīra (Catechu tree)	<i>Acacia catechu</i>	Fabaceae	TS 4-7-4
3. Varaṅga (Varuna)	<i>Crateva magna</i>	Capparaceae	TS 4-7-4
4. Udumbara (Cluster fig)	<i>Ficus racemosa</i>	Moraceae	TS 4-7-4
5. Vikaṅkata (Indian plum)	<i>Flacourtia indica</i>	Flacourtiaceae	TS 4-7-4
6. Śamī (Indian desert tree)	<i>Prosopis cineraria</i>	Fabaceae	TS 4-7-4
7. Raktachandan (Red sander)	<i>Pterocarpus santalinus</i>	Fabaceae	TS 4-5-2(9)
8. Bilva (Bael)	<i>Aegle marmelos</i>	Rutaceae	TS 4-5-8(7)
9. Palāśa or Parṅga	<i>Butea monosperma</i>	Fabaceae	TS 4-5-8(7)
10. Aśvat'tha (Peepal tree)	<i>Ficus religiosa</i>	Moraceae	TS 4-5-8(7)
11. Nyagrōdha (Banyan tree)	<i>Ficus benghalensis</i>	Moraceae	TS 4-5-10(10)



Just as hair are innumerable in number and that protect the skin and the head of the human beings, leaves are also numerous and protect the tree and plants.

The importance of this *mantra* is that being in the form of trees like Plākṣa (*F. virens*), Paṛṇa (*B. monosperma*), Bilva (*A. marmelos*) (Fig. 2), Aśvat'tha (*F. religiosa*), and other huge trees. Lord Rudra helps in performance of *Yāgas* in this world, and being in the form of *Kalpaka* tree in the upper world, He grants all enjoyments. Hence, Lord Rudra will be worshipped by those desirous of these benefits.

The leaves are enormous on the trees and they prepare food material by accumulating the energy from the Sun rays and nourish the entire tree. And hence, the reference to trees which is associated with the use of wood and leaves in various *Yajñas* and *Yāgas*. The reference is also to the *Kalpa vṛkṣa* tree, which is Lord Rudra Himself, who fulfills the wishes of all His devotees. The reference is also to the 'Tree of Vēda', whose branches are the *Śākhās* (branches) of the Vēdas. Thus, a comparison of Lord Rudra to be a Tree and its green leaves is appropriate.

|नमःशश्यायचफेन्यायच ||

[| nama śśāṣpyāya ca phēnyāya ca ||] – TS 4-5-8(16).

My Salutations to Lord Rudra who is in the grass and the river froth!

The term *Śaṣpa* is mentioned in the YV *Samhitās* [TS 4-5-8(16) and VS 21-29] and in RV *Brāhmaṇa* (AB 8-5-3 and AB 8-8-4), YV *Brāhmaṇa* [SB 12-7-2(8) and

SB 12-9-1(2)]. Sāyaṇāchārya (1970) in his commentary on *Taittirīya Saṃhita* mentioned that *Śaṣpa* means a just born **Darbha** grass (*Desmostachya bipinnata*) grows on the banks of the Ganga River. It also denotes 'young' or a 'sprouting grass' (Macdonell and Keith, 1982).

**Phēnyāya** = He is present in the froth of the river.

|नमःकाट्यायचगह्वरेष्ठायच ||

[| namaḥ kātyāya ca gahvarēṣṭhāya ca ||] – TS 4-5-9(6).

My Salutations to Lord Rudra!

**Kātyāya** = creepers with thorns; **gahvarēṣṭhāya** = poisonous mountain caves.

To the Lord who is in a place not accessible because it is full of creepers and plants with thorns and in the rugged and rough mountain caves. Here, several creepers and plants that are having thorns can be given as examples - *Capparis decidua*, *Ziziphus mauritiana*, *Prosopis cineraria*, *Bombax ceiba* etc.

**Lord Rudra's weapons like Triśūla and others are made out of an important and highest quality wood comparable to that of a Nyagrōdha (F. benghalensis). It has been described that Lord is seated in a banyan tree in Kailasa, which is 100 Yōjanas tall and 175 Yōjanas wide (Yōjana is a Vedic measure of distance that was used in ancient India. One Yōjana is about 12–15 kilometers in length) and that banyan tree is the refuge of those anxious to get Moksha.**



**Figure 2. Bael or Bilva (*Aegle marmelos*): (a) entire tree showing the wood and the crown, (b) flowers close up, (c) tree in fruiting stage and (d) bael fruit slices.**

|नमश्शुष्क्यायचहरित्यायच ||

[| nama śśuśkyāya ca harityāya ca ||] – TS 4-5-9(9).

śśuśkyāya = dried tree wood; harityāya = moist-green tree wood.

My Salutations to the Lord Rudra, who is in the dried tree wood and also in the moist-green tree wood.

|नमःपर्ण्यायचपर्णशुद्यायच ||

[| namaḥ parṇyāya ca parṇasadyāya ca ||] – TS 4-5-9(12).

Parṇyāya = in the green leaves; Parṇasadyāya = in the heaps of dried leaves.

My Salutations to the Lord Rudra, who is present in the leaves and in the heaps of dried leaves.

|मीढुष्टमशिवतमशिवोनस्सुमनाभव|

परमेवृक्षआयुधनिधायकृत्तिवसान्

आचरपिनाकंबिभ्रदागहि||

[| mīḍhuṣṭama śivatama śivō na ssumanā bhava |

paramē vṛkṣa āyudham nidhāya kṛttim vasāna ā cara pinākam bibhradā gahi ||] – TS 4-5-10(10).

My Salutations to the Lord Rudra, the bestower of all desired objects to worshippers! Please be granter of auspiciousness, well-disposed and kind to us. As an indication of this, please leave all your terrible weapons in the superior banyan tree in *Kailasa* out of our sight and come before us, wearing tiger-skin and holding your bow in hand as a decoration.

Here, Lord Rudra's weapons like *Trisūla* and others are made out of an important

and highest quality wood comparable to that of a *Nyagrōdha* (*F. benghalensis*). It has been described that Lord is seated in a banyan tree in *Kailasa*, which is 100 *Yōjanas* tall and 175 *Yōjanas* wide (*Yōjana* is a Vedic measure of distance that was used in ancient India).

One *Yōjana* is about 12–15 kilometers in length) and that banyan tree is the refuge of those anxious to get *Moksha*. Here it is prayed that the weapons be left in that tree.

|येवृक्षेषुसस्पिञ्जरानीलग्रिवीवाविलोहिताः||

[| yē vṛkṣēṣu saspinjarā nīlagrivā vilōhitāḥ ||] – TS 4-5-11(5).

Vṛkṣēṣu = in the Trees; Saspinjarā = tender grass that in reddish-yellow colour.

My Salutations to the Lord Rudra and other Rudras present in the trees. Like on earth, there are Rudras of different colours, living in trees as their lords. This mantra refers to them. And also the Rudras present in the grasses that are in reddish-yellow colour.

|त्र्यंबकयजामहेसुगन्धिपुष्टिवर्धनम्|

उर्वारुकमिवबन्धनान्मृत्योर्मुक्षीयमाऽमृतात्||

[| tryambakaṃ yajāmahē sugandhiṃ puṣṭivardhanaṃ |

urvārukamiva bandhanānmṛtyōrmukṣīya māmṛtāt ||] – TS 1-8-6(11).

My Salutations to Lord Rudra, as the scent, colour, etc. are all superior as mentioned by Upanishad in '*Divyagandha*:', the Sri Gandha tree (*Santalum album*) (Fig. 3), '*Divyarasa*:' etc., has been used here. Also, in this *Mantra* it is an invocation made with a request to release the clutch of '*Mṛtyu*' (death).





**Figure 3. Sandalwood (*Santalum album*): (a) entire tree, (b) wood close up, (c) sandalwood logs, (d & e) flowering stage, (f) wood pieces, (g) wood pieces and sandalwood power, (h) fruiting stage, and (i) dried fruits.**

The essence of this Mantra signifies the fact that just as the ripened Urvāruka (Fig. 4) (cucumber fruit = *Cucumis sativus*) separates on its own from the stem, in the same way I would like to liberate myself from the cycle of life and death.

### Camaka Praśna - TS 4-7

।कृषिश्चमेवृष्टिश्चमेजैत्रं चमौद्धिंघं चमे.....  
 विभुचमेप्रभुचमेबहुचमेभूयश्चमेपूर्णचमेपूर्णतरं चमेक्षिति  
 श्चमेकूयवाश्चमेऽन्नं चमेऽक्षुच्चमेव्रीहयश्चमेयवा"  
 श्चमेमाषा"श्चमेतिला"श्चमेमुद्गाश्चमेखल्वा"श्चमेगोधूमा"  
 श्चमेमसुरा"  
 श्चमेप्रियङ्गवश्चमेऽणवश्चमेश्यामाका"श्चमेनीवारा"  
 श्चमे॥

[| kr̥ṣiṣca mē vṛṣṭiṣca mē jaitram ca ma  
 audbhidyam ca mē ..... vibhu ca mē  
 prabhu ca mē bahu ca mē bhūyaṣca mē  
 pūrṇam ca mē pūrnataram ca mēkṣitiṣca  
 mē kūyavāṣca mēnnam ca mēkṣucca mē  
 vṛihayaṣca mē yavāṣca mē māṣāṣca mē  
 tilāṣca mē mudgāṣca mē khalvāṣca mē  
 gōdhūmāṣca mē masurāṣca mē  
 priyaṅgavaṣca mēṇavaṣca mē śyāmākāṣca  
 mē nīvārāṣca mē ||] – TS 4-7-4.

**Kṛṣiḥ** = agriculture/ploughing (Macdonell and Keith, 1982); **Vṛṣṭiḥ** = rain; **Jaitram** = successful; – these three together can mean good yielding land; **audbhidyam** = growth of the plant, creeper etc.; (1) **Vibhu** = superior grains, (2) **Prabhu** = more superior grains, (3) **Bahu** = much Superior grains, (4) **Bhūyaḥ** = much more superior grains, (5) **Pūrṇam** = filled grains, (6) **Pūrṇataram** = fine-filled grains, (7) **Akṣitiḥ** = not destructed grains. These seven words indicate progressive increase in growth of food grains, the second indicating a higher growth than the first and so on; the seventh indicating the

highest growth; **Kūyavāḥ** = *Yava* of not good quality; **Annam** = reputed food; **Akṣut** = relief from hunger; **Vṛihi** (Rice) = *Oryza sativa*; **Yava** (barley) = *Hordeum vulgare*; **Māṣa** (black gram) = *Vigna mungo*; **Tila** (sesame) = *Sesamum indicum*; **Mudga** (green gram) = *Vigna radiata*; **Khalva** (Bengal gram) = *Cicer arietinum*; **Gōdhūma** (wheat) = *Triticum aestivum*; **Masurā** = *Vicia hirsuta*; **Priyaṅgu** (Indian millet) = *Setaria italica*; **Aṅgu** (proso millet) = *Panicum miliaceum*; **Śyāmākā** (Indian barnyard millet) = *Echinochloa frumentacea*; **Nīvāra** (wild rice) = *Oryza rufipogon*.

The 4<sup>th</sup> Anuvāka of the Camaka Praśna starts with ‘energy’ so much needed for day-to-day living. It then lists various sources of energy and the means to procure them (agriculture, conquest, etc.). It asks for the abundance of those sources. It indicates the requirements for the success of agriculture, growth of the plants, and creepers. For the reputed food, the *Annam*, revealed the major, minor food grains, legumes, and an oil seed crop that would give relief from hunger. Here, seven cereal crops, four legume crops, and one oil seed crop are revealed (Fig. 5). It prays for the condition in which one never has to go hungry (*akṣut*) and the condition in which one never runs out (*akṣitiḥ*) of any item required in a given day. One also gets the message that having food and drink with many more people is more elevating for the nourishment of the body and mind. All these actions are energy-imbibing (eating, drinking, etc.) are to be done with a sweet and pleasant manner of speaking, which will definitely reflect in the subtle portion of the food which goes to the mind.





**Figure 4. Urvāru (*Cucumis sativus*): (a) ucumber field, (b) flowering stage, (c) cucumber fruit intact with the plant, (d) cucumber fruits, and (e) seeds.**

The *Yajurveda* records 12 types of food-grains in the above-mentioned mantra. It is very interesting to note that most of these cultivated grains are known as ‘*dhānya*’ in the *Bṛhadāraṇyaka Upaniṣad* (BU 6-6-13) as all these grains are most essential for sustaining life. According to this Upaniṣad the 10 cultivated grains are - rice, barley, sesamum, beans, millet, panic seeds, wheat, lentils, and pulses. Here is the Mantra below:

।दश ग्राम्याणि धान्यानि भवन्ति व्रीहि  
यवास्तिलमाषा अणुप्रियंगवो गोधूमाश्चम

सूराश्च खल्वाश्च लकुलाश्च तान्पिष्टान्दधानि  
मधुनि घृत उपसीचत्याज्यस्य जुहोति ।।

[| daśa grāmyāṇi dhānyāni bhavaṃti vrīhi  
yavāstilamāṣā aṇupriyaṃgavō  
gōdhūmāśca masūrāśca khalvāśca  
khalakulāśca tāṃpiṣṭāṃdadhani madhuni  
ghṛta upasīcatyājyasya juhōti ||]—BU 6-3-13.

।कृष्टपच्यं चमेकृष्टपच्यं चमे... ।।

[| kṛṣṭapacyam ca mēkṛṣṭapacyam ca  
mē...||] – TS 4-7-5.

।कृष्टपच्यं| [| kṛṣṭapacyam||] - Grain plants  
grown in one time ploughed field.



Vrihi	: <i>Oryza sativa</i>	} 07 Cereal crops
Yava	: <i>Hordeum vulgare</i>	
Gোধūma	: <i>Triticum aestivum</i>	
Priyaṅgu	: <i>Setaria italica</i>	
Aṇu	: <i>Panicum miliaceum</i>	
Śyāmāka	: <i>Echinochloa frumentacea</i>	
Nivāra	: <i>Oryza rufipogon</i>	
Māṣa	: <i>Vigna mungo</i>	} 04 Legume crops
Mudga	: <i>Vigna radiata</i>	
Khalva	: <i>Cicer arietinum</i>	
Masurā	: <i>Vicia hirsuta</i>	} 01 Oil seed crop
Tila	: <i>Sesamum indicum</i>	

**Figure 5: Cereal, legume and oil seed crops revealed in the *Śrī Rudram*.**

**The Yajurveda records 12 types of food-grains in the above-mentioned mantra. It is very interesting to note that most of these cultivated grains are known as 'dhānya' in the Bṛhadāraṇyaka Upaniṣad (BU 6-6-13) as all these grains are most essential for sustaining life. According to this Upaniṣad the 10 cultivated grains are - rice, barley, sesamum, beans, millet, panic seeds, wheat, lentils, and pulses.**

|अकृष्टपच्यं| [| akrṣṭapacyam||] - Grain plants grown in an unproductive or unploughed field.

This means that the left out seeds of the previous crop in the field will germinate soon after the rains and along with the crop, weeds also would germinate and grow simultaneously.

|इध्मश्चमेबृहिश्चमेवेदिश्चमेधिष्णिंयाश्चमेस्रु  
चश्चमेचमुसाश्चमेग्रावाणश्चमेस्वरवश्चमउपरुवाश्च  
मेधिष्वाणेचमेद्रोणकलुशश्चमेवायुव्यानि  
चमेपूतभृच्चमआधवनीयश्चमुआग्नी"  
ध्रंचमेहविर्धानंचमेगृहाश्चमेसदश्चमेपुरोडाशा"  
श्चमेपचुताश्चमेऽवभृथश्चमेस्वगाकारश्चमे||

[| idhmaśca mē barhiśca mē vēdiśca mē  
dhiṣṇiyāśca mē srucaśca mē camasāśca  
mē grāvāṇaśca mē svaravaśca ma  
uparavāśca mēdhiṣavaṇē ca mē  
drōṇakalaśaśca mē vāyavyāni ca mē  
pūtabhṛcca ma ādhavanīyaśca ma  
āgnīdhram ca mē havirdhānam ca mē  
grhāśca mē sadaśca mē purōḍāśāśca mē  
pacatāśca mēvabhṛthaśca mē svagākāraśca  
mē ||] – TS 4-7-8.

The requirements to perform *Yajñas* and *Yāgas* are detailed in this Anuvāka. For this purpose, *Idhmaśca* = the faggots or kindling fire or Samidhas collected from different trees; *Barhiśca* = a bunch of

holy grass or Darbha grass (*Desmostachya bipinnata*); *Vēdiśca* = *Yajña* fire-altar; *Dhiṣṇiyāśca* = Priests for performing *Yajña*; *Srucaśca* = wooden ladles [*Sruc* - made out of Parṇa (*Butea monosperma*), *Sruva*, made of Khādīra wood, (*Acacia catechu*), *Juhu* made out of Parṇa (*Butea monosperma*) and others]; *Chamasāśca* = wooden cups made of Nyagrōdha wood (*F. benghalensis*) for storing and drinking of Soma juice); *Grāvāṇaśca* = stones for pressing out the Soma juice; *Svaravaśca* = wooden knives to cut Darbha grass and Soma shoots (*Sarcostemma acidum*) (Fig. 6); *Uparavāśca* = pits dug in *havirdhāna* positioning apart a portion of the sacrificial material or the grains intended for it; *Adhiṣavaṇa* = *Adhiṣavaṇa phalaka* made of Khādīra wood, (*Acacia catechu*) to press the soma shoots (*Sarcostemma acidum*); *Drōṇakalaśa* = a large vessel made of hard wood like *Vikaṅkata* (*Flacourtia indica*) or *Varaṇa* (*Crateva magna*) to store the Soma juice; *Vāyavyāni* = Praises (*Sūktas*) of *Vayu* deity; *Pūtabhṛta* = mud vessel; *Ādhavanīyaśca* = a vessel in which the Soma shoots are kept and cleaned; *Āgnīdhra* = the priest who sits in the North-side of the *Yajña* altar and the same priest who kindles the sacrificial fire, '*Yajñāgni*', using the instrument '*Agni-manthana*'. He is an assistant of Brahman. His main function is to pronounce "*Astu Śrauṣaḥ*" in response to the *Adhvaryu*'s "*āsrāvaya*". He holds the '*Sphya*' (made of Khādīra wood, *Acacia catechu*) with his hand turned southwards; *Havirdhānam* = place kept for keeping the *Havis*; *Grhāśca* = houses for the wives of the *Yajñā* priests; *Sadaśca* = seats for the *Sāma Vēda* singers; *Purōḍāśa* = rice cakes specially prepared





**Figure 6. Soma (*Sarcostemma acidum*): (a) soma plant, (b) flowering stage, (c) flowers close up, (d) fruiting stage, and (e) seed dispersal stage.**

for *Yajña havis*; *Pacatāśca* = place and vessels for cooking the *havis*; *Avabhṛtaśca* = a purification bath taken at the end of the *Yajña* for protection; *Svagākāraśca* = with the intent of dispatch the essence of the *havis*-offering to the intended deity.

।यो रुद्रो अग्नौ यो अप्सु य ओषधीषु  
योरुद्रो विश्वा भुवना विवे शतस्मै रुद्राय  
नमो अस्तु ।।

[। yō rudrō agnau yō apsu ya oṣadhīṣu yō  
rudrō viśvā bhuvanāvivēśa tasmai rudrāya  
namō astu ]] – TS 5-5-9(39).

I bow to Lord Rudra who is omnipresent in fire, in water, in trees and in plants and pervaded in the entire universe.

## Conclusions

Lord Rudra, the Vēdic deity, is mentioned in all four Vēdas. The *Yajurveda* hymns that have gained particular importance are the ‘Rudra Namakaṁ (TS 4-5)’ and the ‘Rudra Camakaṁ (TS 4-7)’ which constitute the ‘*Śrī Rudram*’. The Rudra Namaka and the Rudra Camaka Mantras reveal botanical and agriculture terminology, names of plants and trees. In Vēdas and in particularly the *Śrī Rudram*, the significance of trees is emphasized and given utmost importance due to the various special qualities they possess. *Yajña* in itself is seen as the very essence of the *Vēda*. The general requirements of *Yajña*, in the form of preparation of *Yajña Vēdi*, *Samidhas*, plant-derived oblations,

***Lord Rudra, the Vēdic deity, is mentioned in all four Vēdas. The Yajurvēda hymns that have gained particular importance are the ‘Rudra Namakarṇ (TS 4-5)’ and the ‘Rudra Camakarṇ (TS 4-7)’ which constitute the ‘Śrī Rudram’. The Rudra Namaka and the Rudra Camaka Mantras reveal botanical and agriculture terminology, names of plants and trees.***

Yajña implements and others are clearly indicated in the Camaka Praśna of Śrī Rudram (TS 4-7-8). The plants and trees mentioned in the Camaka Praśna are more in number as compared with the Namaka

Praśna. The general requirements to perform Yajñas and Yāgas are detailed in one of the Anuvāka’s of Chamaka Praśna. In *Śrī Rudram*, one wild grass, seven cereal crops, four legumes, one oilseed crop, two creepers and eleven trees are revealed. Even today, these crops are being cultivated by our farmers for the utilization by mankind and cattle on day to day basis as food and fodder, respectively. The different qualities of cereal grains and their progressive increase in growth of food grains are detailed in the Camaka Praśna (TS 4-7-4).

The study of trees mentioned in the Holy Scriptures of different nations is a fascinating subject. Mythological significance of these trees is certainly not without reason and relevance, though this relevance might have undergone a number of transformations over the centuries. As old civilizations give place to new, many ideas and ideologies change. But in case of tree/plant life and its myriad forms, few have been chosen for prominence in religious observances and they seem to

have survived over the centuries and are still looked upon with awe and reverence (Bhatla *et al.*, 1984).

### **Acknowledgements**

I am grateful to Indian National Commission for History of Science, Indian National Science Academy (INSA), New Delhi, for sanctioning the project titled, “Plant Biology of Yajurveda”. The present article is the outcome of the investigation of this research project. I am indebted to my Veda teacher Brahmasri Vedam Venkata Rama Sastry for his guidance and insightful suggestions from the inception of the project. I also thank Anantasri Boddupalli for his help in various ways during the preparation of this manuscript.

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