

New Light on Vedic Health Drink

Dr. Swapan Kumar Adhikari (swapankumar.adhikari@gmail.com)

Retired Headmaster, GHUSURI UCHCHA MADHYAMIK VIDYALAYA, Howrah, West Bengal, India



Copyright: © 2022 by the authors.
Licensee [The RCSAS \(ISSN: 2583-1380\)](http://www.thercsas.com). This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution Non-Commercial 4.0 International License. (<https://creativecommons.org/licenses/by-nc/4.0/>)

Abstract: According to Veda, particularly in R̥g (ऋग) Veda, Soma (सोम) had been recognised as ritual drink. There are different concepts on Somarasa but we tried to establish it is from our traditional *Tāl'* (*Borassus flabellifer*) because literal concepts within Soma are “distil, extract, sprinkle” can be done by our indigenous *Tāl*. We established from the Ślokas of Vedas, Soma is nothing but *Tāl* extracts.

Keywords: soma, tāl, yajña

1

Introduction

Soma frequently used in *Yajña* (यज्ञ)². So, we have to express something on *Yajña* and what we initially get that it indicates sacrifice, devotion, worship, offering in ritual done in front of a sacred fire (*Agni*, अग्नि) with some *Vedic Ślokas*.

From (अपस्तम्ब यज्ञ परिभाषा सूत्र १-१) *Apastamba Yajña Paribhāṣa-sūtras* 1.1 we find definition of *Yajña* as:

यज्ञं व्याख्यास्यामः।

स तु यज्ञो देवतोद्देशेन द्रव्यत्यागत्मकः याग इति क्रियाविशेषः।

स हि निःश्रेयसाय (निःश्रेयसाय) चोदितः।

Yajña vyākhyāsyāmaḥ |

Sa tu yajño devatoddeśaṇa dravyatyāgatmakah yāga iti kriyāviśeṣah |

Sa hi niśśreyasāya (niśśreyasāya) coditah |

Yajña, is a special act of offering substances (द्रव्य, *dravya*) devatas reciting mantras. It has originated from *Niśśreyas* (निःश्रेयस) i.e., from spiritual (*Ādhyātmik*, आध्यात्मिक) freedom of all beings.

In R̥g-Veda III-32/9 (ऋग-वेद ३/३२-९) we find:

अद्रोघ सत्यं तब तन्महित्वं सद्यो यज्जातो अपिवो ह सोमम् ।

¹ Palmyra fruit / Sugar Palm fruit: Grow in clusters on tall palm trees. It has a black to reddish-brown husk. If the top part of the fruit removed, three sweet jelly seeds sockets appear which are translucent, pale yellow / white in colour having mild sweet flavour. The fruit (palmyra fruit) measures 10 cm (3.9 in) to 18 cm (7.1 in) in diameter, has a black and yellowish husk. The sweet jelly seed sockets occur in combinations of two, three or four seeds inside the fruit. The jelly part of the fruit is covered with a thin, yellowish-brown skin. These are known to contain watery fluid inside the fleshy white body.

² *Yajña* is divided two parts (1) rituals-related texts called the ritual works (*Karma-kāṇḍa*, कर्मकाण्ड) and (2) Knowledge (*Jñāna-kāṇḍa*, ज्ञानकाण्ड). According to Chandogya Upaniṣad: अथ यद्यज्ञ इत्याचक्षते ब्रह्मचर्यमेव तद्ब्रह्मचर्येण ह्येव यो ज्ञाता तं विन्दतेऽथ यदिष्टमित्याचक्षते ब्रह्मचर्यमेव तद्ब्रह्मचर्येण ह्येवेष्टात्मानमनुविन्दते ॥ ८.५.१ ॥ (Atha yadyajña ityācākṣate brahmacaryameva tadbrahmacaryeṇa hyeva yo jñātā taṁ vindate'tha yadiṣṭamityācākṣate brahmacaryameva tadbrahmacaryeṇa hyeveṣṭvātmānamanuvindate ॥ 8.5.1 ॥ – Then *Yajña* [sacrifice] is *Brahmacarya* (*Karma-kāṇḍa*) This is because one who knows the Self attains *Brahmaloka* through *Brahmacarya*. Again, that which is known as *Iṣṭa* [worship] for the desired Self (*Jñāna-kāṇḍa*).

न द्याव इन्द्र तवसस्तु ओजो नाहा न मासाः शरदो बरन्त ॥

Adrogha satyañ taba tanmahitvañ sadyo yajjāto apivo ha somam |

Na dyāva indra tavasastu ojo nāhā na māsāḥ śarado varanta ||

Most powerful just after birth drinks Soma. Therefore, it cannot be alcohol but may be nectar.

We can also find hue of Soma-tree in IX/5-10 of R̥g-Veda (ऋग-वेद ९/५-१०):

वनस्पतिं पवमान मध्वा समंघ्नि धारया । सहस्रवल्शं हरितं भ्राजमानं हिरण्ययम् ॥

Vanaspatiñ pavamāna madhvā samaṅdhi dhārayā |

Sahasravaḷśaṅ haritaṅ bhrājamānaṅ hiraṇyayam ||

It is vanaspati having green appearance with deer-like hue (colour) with thousands of boughs. The plant is leafless and its stalks alone crushed and juice (*Tāl-rasa*) extracted from them mixed with honey and it is having erect appearance. Fruits are Golden fibred yields paste-like glutinous extract.

On fruit we get n VIII/9-19 of R̥g Veda (ऋग-वेद ८/९-१९):

यदापीतासो अंशवो गावो न दुहू ऊधभिः । यद्वा वाणीरनूषत प्र देवयन्तो अश्विना ॥

Yadāpītāso aṅśavo gāvo na duhū ūdhabhiḥ | Yadvā vāṇīranūṣata pra devayanto aśvinā ||

Golden yellow stalks of fruit give forth juice (paste-like) which when mixed with water looks like milk.

वनस्पतिं पवमान मध्वा समंघ्नि धारया । सहस्रवल्शं हरितं भ्राजमानं हिरण्ययम् ॥ ९/५-१०

Vanaspatiñ pavamāna madhyā samaṅdhi dhārayā |

Sahasravaḷśaṅ haritaṅ bhrājamānaṅ hiraṇyayam || IX/5-10

Soma-plant is tree (*Vanaspati*, वनस्पति) having thousands of rings with leave scars. Its fruit is black to yellowish brown colour. It will be delicious with honey (*Madhu*, मधु).

All the above properties are found from Tāl-tree³ and its fruits.

Description

Somarasa was a favourite item in Vedic literature.

In the hymn R̥g Veda:

एमाशुमाशवे भरु यज्ञश्रियं नृमादनं । पतयन्मन्द्रयत् सखं ॥

१/४-७

Emāśumāśave bharu yajñśriyam nṛmādanam |

Patayanmandrayat sakham || I/4-7

It is diffusible, used in *Yajña* (यज्ञ).

त्वं सुतस्य पीतये सद्यो बृद्धो अजायथाः । इन्द्र जैष्ठ्याय सुक्रतो

॥ १/५-६

Tvaṁ sutasya pītaye sadyo bṛddho ajāyathāḥ | Indra

jaiṣṭhāya sukrato || I/5-6



Fibred juicy food

³ Palm-plant / Palmyra-tree. The Palm plants are native to South and Southeast Asia region. It is a robust tree and can reach a height of 30 metres (98 ft). The trunk is grey, robust and ringed with leaf scars; old leaves remain attached to the trunk for several years before falling cleanly. The leaves are fan-shaped and 3 m (9.8 ft) long, with robust black teeth on the petiole margins.

Indra is considered to be greatest of the Devatās as you take Soma from birth to become mentally and physically alert of all.

Lord Indra was fond of *Somarasa* since birth i.e., even when **Indra** was a neonate.

आ त्वाः विशन्वाशवः सोमास इन्द्र गिर्वणः । शन्ते सन्तु प्रचेतसे ॥ १/५-७

Ā tvāḥ viśantvāśavaḥ somāsa Indra girvaṇaḥ | Śante santu pracetase || I/5-7

Indra used to take Soma just after His birth to extend your knowledge for the beneficiary.

यः कुक्षिः सोमपातमः समुद्र इव पिन्वते । ऊर्वीरापो न काकुदः ॥ १/८-७

Yaḥ kuḥṣiḥ somapātamaḥ samudra iva pinvate | Ūrvīrāpo na kākudaḥ || I/8-7

Indra drinks Somarasa and it helps to keep water-level of the body.

इन्द्रेहि मत्स्यन्धसो विश्वेभिः सोमपर्वभिः । महौ अभिष्टिरोजसा ॥ १/९-१

Indrehi matsyandhaso viśvebhiḥ somaparvabhiḥ | Mahān abhiṣṭirojasya || I/9-1

Indra has been requested to drink Somarasa to appear as most powerful.

आ त्वा वहन्तु हरयो वृषणं सोमपीतये । इन्द्र त्वा सूरचक्षसः ॥ १/१६-१

Ā tvā vahantu harayo vṛṣṇaṁ somapītaye | Indra tvā sūracakṣasaḥ || I/16-1

Indra is influenced to drink Somarasa and requested Him to appear in the Yajña-place riding on the horse.

ऊप नः सुतमा गहि हरिभिरिन्द्र केशिभिः । सुते हि त्वा हवामहे ॥ १/१६-४

Ūpa naḥ sutamaḥ gahi haribhirindra keśibhiḥ | Sute hi tvā havāmahe || I/16-4

Indra is invited to come quickly to Yajña-place to have Somarasa.

सेमं नः स्तोममा गह्युपेदं सवनं सुतमः । गौरो न तृषितः पिव ॥ १/१६-५

Semaṁ naḥ stomamā gahyupedaṁ savanaṁ sutamaḥ | Gouro na tṛṣitaḥ piva || I/16-5

Oh! Indra come with us to take Soma.

Soma was described as honey (*Madhu*, मधु) or harvested food staff (*Śasya*, शस्य) in various hymns in *Rg Veda*. It may be relevant here that even in modern India new-born babies are given to suck honey as their first feed. Traditionally, any sweet extract can be equated with honey. One can try molasses in lieu of honey: says the scriptures & proverbs.

Vedic *Somarasa* is generally accepted as a plant extract. It was from tree, not creeper as popularly believed, growing on centrally located hillocks of the Vedic ages. Rainy season favoured their growth. It was described as foliage (*parni*) whose evergreen leaves was held in graceful slanting pairs. Poetic hymns describe *Soma* as the offspring of earth with clouds and the grand child of waters. For getting an aqueous extract of *soma* the plant material was pressed with iron or stony pestles, then vigorously fondled and repeatedly strained through metallic or woollen sieves. The juice would then be placed in wooden or leather containers specially designed for this purpose. Usually, these extracts were freshly prepared in the morning of the day of celebration of the *Yajña*. The female inmates of the house were engaged in this work. In the hymn *Rg Veda* (ऋग-वेद) we see *Soma* is mixed with curd to make it delicious:

सुतपान्ने सुता इमे शुचयो यन्ति वीतये । सोमासो दध्याशिरः ॥ १/५-५

Sutapāvne sutā ime śucayo yanti vītaye | Somāso dadhyāśira || I/5-5

Here it has been expressed that *Soma* (paste-like) has been made delicious mixing it with curd.

तं गोभिर्वृषणं रसं मदाय देववीतये । सुतं भराय सं सृज ॥ १/६-६

Taṁ gobhirvṛṣaṇaṁ rasaṁ madāya devavītaye | Sutaṁ bharaaya saṁ sṛja || IX/6-6

Mixed Somarasa with products of cow to make it delicious to God (*Devatās*, देवता) – It indicated that drinks are healthy drinks with milk, curd, thickened milk (*Khīra*, क्षीर) etc.

अभि ते मधुना पयोऽथर्वाणो अशिश्रयः । देवं देवाय देवयु ॥ ९/११-२

Abhi te madhunā payo 'tharvāṇo aśiśrayaḥ | Devaṁ devāya devayau || IX/11-2

Oh! Hermits, please prepare Somarasa with milk for Indra.

आदस्य शुष्मिणो रसे विश्वे देवा अमत्सत । यदी गोभिर्वसायते ॥ ९/१४-३

Ādasya śuṣmiṇo rase viśve devā amatsata | Yadī gobhirvasāyate || IX/14-3

If milk is added to *Soma*, then Gods will be more strength.

The liquid would then be mixed with milk, curd, honey, barley and various other food staff to prepare tasty items like cakes, drinks etc. All these were for offering to **Lord Indra**, **Agni**, **Viṣṇu** and others. The fresh juice from the green stock was yellowish brown which could turn brilliant white on addition to enough milk products. Sometimes the prepared extract would be thrown in river waters as a part of ritual offerings. The refuse after extraction of juice would go to fire.

After the *Yojña* offerings, the remains would be shared by the community and the priests. The *Somarasa* was nutritious and addictive to some extent. It pleasantly sharpened the feelings and the intellect. A sense of well-being was expected from this sacred drink which cleansed body and mind.

The *soma plant* has not yet been recognised beyond doubt. The *Somarasa* apparently seems to be simply vegetable extract.

But in the hymn *Rg Veda* (ऋग-वेद):

सोमं मन्यते पपिवान्यत्संपिषन्त्यषधिम । सोमं यं ब्राह्मणो विदुर्न तस्याश्राति कश्चन ॥ १०/८५-३

Somaṁ manyate papivānyatsaṅpiṅsantyoṣadhim |

Somaṁ yaṁ brahmāṇo vidurna tasyāśnāti kaścana || X/85-3

Persecuting of *Soma-Tree* we get *Somarasa*; which adds some occult vision. Weaklings will not be able to tolerate the impact of *Somarasa*.

It is postulated that *Somarasa* may be symbolic for the neuro-endocrinal secretions of the thousand petaled upper brain of man, (*cerebral cortex*) trickling into the solar plexus of nerves in the abdominal cavity. The hymn clearly says that the visible plant extract may not be the real *Somarasa* (worthy of its name), rather the ritual of drinking *Somarasa* could be some occult manoeuvre known to the *Yojñic* priests only. Body's *Somarasa* is inexhaustible. It only rekindles the vitality and puts one in the righteous middle path of the learned Seers. Drinking of *Somarasa* makes one soft-spoken and gentle.

History will testify that the cultural traditions of any country may break many times due to various foreign influences. Even then, a delicate thread of connectivity with the past can be discerned. This connection is very difficult to appreciate when one is not born or brought up in that culture. Foreign scholars identify *Somarasa* with alcoholic drink because it is very common in their culture. They tend to forget that alcohol is a taboo in this part of the world.

Here, we like to put forward our reasons in favour of *Tāl* (*Borassus flabelliformis Roxb*) as soma-plant. In modern days, "*Tāl*" plant-extracts are quite popular and the fruit juice preparations are essential in *Janmaṣṭami* festival. *Janmaṣṭami* is the birth day festival of **Lord Kṛṣṇa** who may be looked upon as transformation of Vedic **Viṣṇu**. Here the image of Indra is also super imposed. **Indra** rules and **Viṣṇu** tends the world. **Kṛṣṇa** has both the qualities. At present, **Indra** is not worshipped commonly. The common liking of both these Vedic Gods was *Somarasa* and now it is *Tāl*-extract preparations. These preparations are offered to **Śrīkṛiṣṇa**. So, it has become an essential ingredient of *Janmaṣṭami* festival: the birth day festival of **Śrīkṛiṣṇa**. It is worth recalling that **Indra** was fond of *Somarasa* since birth. It was not an adult addition only. *Janmaṣṭami* is a birth day celebration. The *Tāl-rasa* starts from the birth day festival of the connoisseur.

Somarasa cannot be alcohol made out of a grape-like creeper; because it is being mixed with barley and milk products for preparation of gastronomic tasty foods. The description of *soma* tree and *Somarasa* may be beautifully matched with *Tāl* in this respect (vide supra).

The addictive or intoxicating property is also compatible with *Tāl*. Fermentation of the juice (*Tālarasa*⁴, तालरस) makes spirituous liquor (*tādi*, ताढी). Lastly, we are tempted to believe the transcendence of *Somarasa* is body's own neuro-hormonal secretion which transcends body and mind with adequate meditation, devotion, worship and austere ascetic practices. The details of all these practices are beyond the scope of this paper.

Plea for Choosing *Tāl* As *Soma*

The Palmyra fruit is covered with thin yellow-brown skin having yellowish fleshy body containing jelly portion within. This fruit is rich in Phosphorus and Calcium with zero-fat and negligible Protein.

Nutrients	Per 100 g. ingredient	Nutrients	Per 100 g. ingredient
Water	77 Grams	Protein	1 Gram
Fat	0 Gram	Carbohydrates	21 Grams
Fibre	0 Gram	Calcium	9 Milligrams
Phosphorus	33 Milligrams	Iron	0 Milligram
Thiamine	0.04 Milligrams	Riboflavin	0.02 Milligrams
Niacin	0.3 Milligrams	Vitamin C	5 Milligrams

Palmyra Palm syrup prepared by heating to evaporate water until the total soluble solid reaches 70⁰ Bx⁵. It is widely used as a sweetener for beverages, foods and medicines. This syrup not only provides sweetness to products but also improves food colour, aroma and taste. It contains 10 Vitamins of them most abundant is Vitamin E [Very effective on skin as mentioned in (A)]. It is natural sweetener⁶ but it contains very less amount of Glucose i.e., low glycaemic to reduce diabetes⁷ as well as obesity. It is especially rich in minerals⁸ and Vitamins⁹, 5.61 mg / g amino acid and having Antioxidant¹⁰ and antimicrobial¹¹ [Effective in (B)] activities.

Being rich in minerals and vitamins Sugar Palm Fruits have healthy option in diet and for people suffering from diabetes.

- (A) Palmyra Fruit has very good effect on skin: (1) A thin layer of its jelly on the prickly-heat creates (a) soothing effect, (b) immediate alleviates the itchiness. (2) Effective reducing the symptoms of chicken pox as well as enhance the rate of healing. (3) Prevent boils,

⁴ Extracted from the body of the Palmyra-tree (shown in the picture).

⁵ Degrees Brix (symbol °Bx) is the sugar content of an aqueous solution. One degree Brix is 1 gram of sucrose in 100 grams of solution and represents the strength of the solution as percentage by mass. If the solution contains dissolved solids other than pure sucrose, then the °Bx only approximates the dissolved solid content.

⁶ Total sugar content = 77.81 g /100 g. with sucrose = 65.26 g / 100 g; fructose = 6.64 g / 100 g and glucose = 5.91 g / 100 g.

⁷ Predicted glycemic index of 70.05.

⁸ Sodium, Potassium, Phosphorus, Iron, Zinc and Copper.

⁹ Thiamine, Riboflavin, Pyridoxine, Pantothenic acid and Nicotinic acid

¹⁰ The syrup contains antioxidant properties such as 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging activity, ferric reducing antioxidant power (FRAP) and hydroxyl radical scavenging activity.

¹¹ Presence of 2,3,4-trihydroxy-5-methyl acetophenone has a wide range of antimicrobial activity against *Escherichia coli*, *Mycobacterium smegmatis*, *Staphylococcus aureus* and *Staphylococcus simulants*.

sensitive skin, redness of face. (4) Poultice or drink from this fruit very effective to treat dermatitis.

- (B) For stomach problems: (1) Prevention of burning sensation in stomach. (2) Hydration in summer. (3) Replenishes minerals and nutrients lost. (4) Prevent painful urination and tiredness. (5) Effective in digestive problems and other stomach ailments i.e., to treat nausea, vomiting and worm infestation. (6) It used as expectorant and liver-tonic. (7) Used as laxative.

It prevents malnutrition. It has anti-inflammatory and anti-oxidant properties as well as analgesic effects and antipyretic¹² activity.

For all these effects it can be used in different for even to mere children except fermented form *Tālarasa*¹³ extracted from tree.

The medicinal value of Palm-fruit had been mentioned in following hymn of R̥g-Veda:

स नः पवस्व शं गवे शं जनाय शमर्वते । शं राजन्नोषधीभ्यः ॥ ९/११-३

Sa nah pavasva śaṅ gave śaṅ janāya śmarvate | Śaṅ rājannoṣadhībhyah || IX/11-3

Residue after extraction of sweet paste-part from Palm-fruit are given to cows, horse for its healthy support and the extract holds medicinal value for human beings.

Results

Going through the medicinal and healthy effect of Palmyra Palm under the physiochemical characteristics analysis we can demand Soma was extraction from Tāl and Tāl-tree.

Conclusion

In Vedas the word Soma is used differently for drink, plant and its deity. Indra and Agni are portrayed as consuming Soma in copious quantities. In R̥g Veda, Soma has been expressed to produce immortality in Śloka VII/48/3:

अपाम सोममृता अभूमागन्म ज्योतिरविदाम् देवान् । किं नूनमस्मान् कृणवदरातिः किमु धूर्तिरमृत मर्त्यस्य ॥

Apām somammṛtā abhūmāganma jyotiravidāma devān |

Kiṅ nūnamasmān kṛṇvadarātiḥ kimu dhūrtiramṛta martyasya ||

If we drunk Soma, then we will be immortal and become coexist with Gods.

Or

Good fruit contents, food is not an intoxicating drink. It is elixir of life to achieve physical strength to achieve control of senses.

In R̥g Veda we find Ślokas in VIII/79/2-8 expressing power of Soma:

अभ्यूर्णोति यन्नग्रं भिषक्ति विश्वं यत्तुरं । प्रेमन्धः ख्यन्निः श्रोणो भूत् ॥२॥

त्वं सोम तनूकृद्भ्यो द्वेषोभ्योऽन्यकृतेभ्यः । उरु यन्तासि वरूथम् ॥३॥

त्वं चित्ती तव दक्षैर्दिव आ पृथिव्या ऋजीषिन । यावीरघस्य चिद्द्वेषः ॥४॥

अर्थिनो यन्ति चेदर्थं गच्छानिद्दुषो रातिम् । ववृज्युस्तृष्यतः कामम् ॥५॥

विदद्यत्पूर्व्यं नष्टमुदीमृतायुमीरयत् । प्रेमायुस्तारीदतीर्णम् ॥६॥

सुशेवो नो मृलयाकुरदृप्तक्रतुरवातः । भवा नः सोम शं हृदे ॥७॥

¹² Analgesic and antipyretic of Ethanolic extract of male flower (inflorescences) of *Borassus flabellifer* L. by dose 150 mg/kg and 300 mg/kg are effective. Oral administration of *Borassus flabellifer* Ethanolic Extract (BEFE) is also effective.

¹³ Microorganisms associate with Palm sap and play major role in fermentation from sweet palm sap to bitter palm sap as *Tādī*.

मा नः सोम सं वीविजो मा वि वीभिषथा राजन् । मा नो हार्दि त्विषा वधीः ॥८॥

Abhyūrṇoti yannagnaṅ bhiṣakti viśvaṅ yatturaṅ | Premandhaḥ khyanniḥ śroṇo bhūt ||2||

Tvaṅ soma tanūkrdbhyo dveṣobhyo 'nyakṛtebhyaḥ | Urū yantāsi varūtham ||3||

Tvaṅ cittī tava dakṣairdiva ā pṛthivyā rjīṣina | Yāvīraghasya ciddveṣaḥ ||4||

Arthino yanti cedartāṅ gacchāniddaduṣo rātim | Vavṛjyustrṣyataḥ kāmam ||5||

Vidadyatpūvyaṅ naṣtamudīmṛtāyumīrayat | Premāyustārīdatīrnam ||6||

Suśevo no mṛlayākuraḍṛptakraturavātaḥ | Bhavā naḥ soma śaṅ hrde ||7||

Mā naḥ soma saṅ vīvijo mā vi vībhiṣathā rājan | Mā no hārdi tviṣā vadhīḥ ||8||

Soma covers the naked (heals severe skin diseases) and helps to recover the sick; even paralysed persons are intended to walk. It helps to survive feeble to normal health. It makes healthy body to fight against enemies. It also helps to increase sharpness of mind and by which man can be wealthy. You make our healthy-mind.

This indicates *Soma* holds nutritional as well as medicinal effect on the body.

Getting tally of the Vedic *Ślokas* and analysis of different products made from *Tāl* we may confirm *Tāl* was ingredient in production of *Soma* for products used from neonatal period to psychoneurotic liquid among the peoples in Vedic periods onward.

Acknowledgement

- 1) **Professor Dr. Shibendra Kumar Saha**, MBBS, MD, DCH; MBBS, DCH, MD; Ex-Professor of Medicine, West Bengal Medical Education Service, who initiated the idea and proceeded to some extent from Veda but he died on 24-11-2021.
- 2) To my student **Dr. Krishna Chaudhury**, M.Sc. (Botany), PhD (Sc), a Botanist, for helping me to collect data on medicinal aspects.

References

1. Ṛg Veda.
2. Śrīmat Vāgabat Gītā.
3. Dung Huynh Thi Le; Chien-Shan Chiu, Yung-Jia Chan, Chiun-Chuan R. Wang, Zeng-Chin Liang, Chang-Wei Hsieh, Wen-Chien Lu, Amanda Tresiliana Mulio, Yin-Jun Wang and Li, Po-Hsien Li: *Bioactive and Physiochemical Characteristics of Natural Food: Palmyra Palm (Borassus flabellifer Linn.) Syrup*; Biology, Vol.1028(10), 2021; Pages 1-15.
4. T. K. Lim.: *Edible Medicinal and Medicinal Plants*; Springer: Dordrecht, The Netherlands, 2012.
5. Mahesh S. Paschapur, Swati Patil, Patil, R. Sachin, Ravi Kumar; M. B. Patil: *Evaluation of the Analgesic and Antipyretic activities of Ethanolic extract of Male Flowers (Inflorescences) of Borassus Flabellifer L. (Aceraceae)*; International Journal of Pharmacy and Pharmaceutical Sciences, Vol. 2 (October – December); 2009, Pages.98-106.
6. Mahesh S. Paschapur, M. B. Patil, Ravi Kumar and Sachin R. Patil: *Evaluation of the Anti-inflammatory activity of Ethanolic extract of Borassus Flabellifer L. Male flowers (inflorescences) in experimental animals*; Journal of Medicinal Plants Research, Vol. 3(2) February, 2009; Pages.049-054.
7. Tribhuvan Singh, Akhilesh Kumar Verma, Syed Imran UI Haq, N. Mounika: *Evaluation and Determination of Antifungal Potentials of Sap of Borassus Flabellifer*; Journal of Pharmaceutical Science and Bioscientific Research: Vol.7(1), 2017; Pages.111-113.

8. Ronald Valder, Krishna Prasad Nooralabettu: *Microbial Characteristics of freshly tapped Palmyra Palm (Borassus flabellifer) Sap*; International Journal of Scientific & Engineering Research, Vol.9(1), January, 2018.

TRANSLITERATION CHART

Sanskrit	Transliteration	Sanskrit	Transliteration	Sanskrit	Transliteration
अ	A, a	आ	Ā, ā	इ	I, i
ई	Ī, ī	उ	U, u	ऊ	Ū, ū
ऋ	R, r	ए	E, e	ऐ	Ai, ai
ओ	O, o	औ	Au, au	क	K, k
ख	Kh, kh	ग	G, g	घ	Gh, gh
ङ	M, m	च	C, c	छ	Ch, ch
ज	J, j	झ	Jh, jh	ञ	ñ
ट	T, t	ठ	Ṭh, ṭh	ड	Ḍ, ḍ
ढ	Dh, dh	ण	Ṇ, ṇ	त	T, t
थ	Th, th	द	D, d	ध	Dh, dh
न	N, n	प	P, p	फ	Ph, ph
ब	B, b	भ	Bh, bh	म	M, m
य	Y, y	र	R, r	ल	L, l
व	V, v	श	Ś, ś	ष	Ṣ, ṣ
स	S, s	ह	H, h	ॠ	ṛ
ऌ	ḷ	ॡ	ṡ		