

Mathematical and Scriptural Analysis of Yagya Mandap Construction: Dvar, Toran, Dhvaja, and Pataka

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Abstract. According to Indian scriptures, the sacred process of Yagya is conducted within a Mandap, defined as a platform constructed with specific proportions. Among its eight components, Dvar, Toran, Dhvaja, and Pataka are associated with specific deities and serve as energy conduits for the fulfillment The Toran, placed one hast away from the Dvar, varies by direction and tree species, each symbolizing a guardian deity. These are adorned with symbolic emblems like Shankh, Chakra, Gada, and Padma in Vishnu Yagya, or Trishul in Shiva Yagya, with mountain symbols enhancing their protective function. *Dhvaja* and *Pataka* are installed in precise locations, bearing deity-specific colors and emblems aligned with directions, as prescribed in texts like Kundpradeep and Smart-Kund Samiksha. The selection of sacred woods such as Palash, Pipal, Udumbar, and Bilva for constructing these elements reflects the spiritual and architectural precision embedded in Vedic ritual practice. While the spiritual role of deities and color energies is beyond the current scope, this structured account underscores the mathematical harmony and symbolic intent in the traditional design of the Yagya Mandap.

Keywords. Yagya Mandap, Toran, Dhvaja, Pataka, Ritual Architecture, Sacred Geometry, Vedic Construction Texts

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Introduction

Yagya is a crucial part of Indian culture and civilization. All the rituals in Indian culture incorporate Yagya as an essential component. The scriptures describe detailed procedures for Yagya, which were followed in ancient times and are still practiced in India and some parts of the world. According to Indian scriptures, the sacred process of Yagya is conducted inside a Mandap, which is defined as a podium or platform constructed with precise proportions.

The Mandap constructed for Yagya consists of eight parts: Mandap base, Sthambh (pillar), Valliya (বল্লিযা), Dvar (द्वार) (door), Toran (तोरण), Vedi (वेदी), Dhvaja (ध्वजा), and Pataka (पताका) [1].

Each part plays a significant role in the procedure of Yagya and the functioning of the Mandap. In a previous publication [1], the dimensions of the Mandap and its classification, pillars, *Valliya*, and *Shikhar* were discussed with references from Indian scriptures [1]. The present paper focuses on *Dvar*, *Toran*, *Dhvaja*, and *Pataka*.

Each of these parts of the Mandap represents a particular deity and serves as a conduit for the flow of energy (Shakti), which is essential for achieving the desired outcome of the Yagya and fulfilling its purpose. The spiritual significance of the deities represented, the mechanism of channeling energy through each specific part, the role of colors, and the materials used in constructing the Yagya Mandap are beyond the scope of the present paper [1–22].

Dvar

The Mandap contains four doors (*Dvar* – $\overline{\mathsf{gIR}}$) (Figure 1), one in each cardinal direction. Each *Dvar* includes a *Toran*, which is unique to its direction based on the deity it represents [1]. The *Toran* acts as a kind of outer gate and is placed at a distance of 1 hast (24 angul or 45.6 cm) from the *Dvar* [2].

Dimensions of Dvar and Its Construction

The height of the *Dvar* is the same as that of the exo-pillars and follows the same placement rules on the Mandap base as those pillars [3]. The final shape of the door is completed by placing the *Valliya* over the exo-pillars, secured using nails for proper fixation [1].

According to Smarth Kund Samiksha by Madhusudan Ojha, the construction of Dvars requires eight Kasht (straight wooden beams). These are classified based on size—small (Avam), medium (Madhyam), and large (Uttam). As per scripture:

Height of 5 hast (228 cm) is Avam (small), 6 hast (273.6 cm) is Madhyam (medium), 8 hast (384 cm) is Uttam (large).

Within these, the *Chuda* (crown piece) also varies: 2 *hast* for *Avam*, 6 *angul* for *Madhyam*, 12 *angul* for *Uttam*.

The Valliya placed above the Dvar is typically made from Daruphala (pistachio) wood. Nails used for its fixation are also classified into: 4 angul for Avam, 4.25 angul for Madhyam, 5 angul for Uttam categories [21, 23].

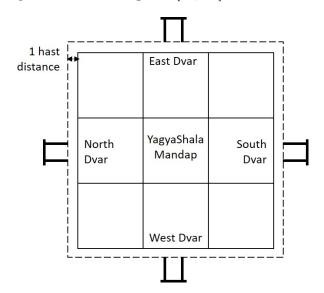


Figure 1: Schematic of Yagyashala indicating Dvar and Toran directions

Toran

It is mandatory to prepare *Toran* for each door in all four directions—east, west, north, and south (Figure 1, Table 1). The *Toran* is placed at a distance of 1 hast (24 angul or 45.6 cm) from the *Dvar*. The *Toran* is a kind of external gate and is made from specific plants depending on

the direction [24].

The east *Toran* is made from *Vaat* (banyan tree) (Ficus benghalensis) or *Pipal* (Ficus religiosa). For the south direction, *Umar* (cluster fig) (Ficus racemosa) is used; for the west, *Pipal* (Ficus religiosa) or *Pakar* (Ficus virens); and for the north, *Plaksh* (Butea monosperma) or *Vaat* (Ficus benghalensis). If a specific plant is not available, all *Toran* can be made using one plant from the mentioned list [4–24].

Each *Toran* is different because it symbolizes a deity standing outside the Yagya Mandap, believed to protect the Yagya from all kinds of obstacles. The wood used for the construction of *Toran* should be straight.

Classification of the Toran

The *Toran* are named and classified based on their direction and the type of wood used for their construction [25]. They are as follows:

- Mahavirya or Srudan Toran made of Pi- used in every direction. Its dimensions are: pal (Ficus religiosa) in the east.
- Subhadra or Vikat Toran made of Gular (Ficus racemosa) in the south.
- Sukarm or Bheem Toran made of Pakar (Ficus virens) in the west; also called Subheem Toran.
- Suhotra or Shashiprabh Toran made of Vatkruksh (Ficus benghalensis) in the north; also known as Suprabha Toran.

Dimension and Construction of Toran

In an Adham (small) category Mandap, the Toran should be 5 hast (228 cm) in height and 2 hast (91.2 cm) in width. In a Madhyam (medium) category Mandap, the height should be 6 hast (273.6 cm) and width 2 hast 6 angul (102.6 cm). In an Uttam (large) category Mandap, the height should be 7 hast (319.2 cm) and width 2 hast 12 angul (114 cm).

Each *Toran* has 3 *Kasht* (wooden beams), consisting of 2 *Sthambh* (pillars) and 1 *Vallika*. The thickness of the *Kasht* used in *Toran* is 10 angul (19 cm). One-fifth of the total height of the *Toran* must be buried in the ground [10, 12].

Construction of the Mandap Toran Symbol

The *Toran* of the Yagya Mandap includes a symbolic representation of the deity for whom the Yagya is being performed. According to Indian scriptures, in Vishnu Yagya, the *Toran* symbols relate to Lord Narayan and are displayed on the *Pataka* (flag) of the *Toran*: *Shankh* (conch) in the east, *Chakra* (discus) in the south, *Gada* (mace) in the west, and *Padma* (lotus) (Nelumbo nucifera) in the north [21, 24].

The dimensions of these symbols are:

- In Alpa (small) category: 10 angul (19 cm) height and 2.5 angul (4.75 cm) width.
- In Madhyam (medium): 12 angul (22.8 cm) height and 3 angul (5.7 cm) width.
- In *Uttam* (large): 14 angul (26.6 cm) height and 3 angul (5.7 cm) width.

For Shiva Yagya, the symbol of *Trishul* is used in every direction. Its dimensions are:

- In Alpa: 9 angul (17.1 cm) height and 2.25 angul (4.27 cm) width.
- In Madhyam: 11 angul (20.9 cm) height and 2.45 angul (4.6 cm) width.
- In *Uttam*: 13 angul (24.7 cm) height and 3.25 angul (6.17 cm) width [21].

Other Arrangements in Toran

In addition to these symbols, drawings of mountains are also included in the *Toran*. Each direction has a specific mountain depicted in a distinct color:

- East: Mahendra Parvat in सिंदूर (vermilion) color.
- South: Vindhyachal Parvat in grey color.
- West: Gandhmadan Parvat in golden color.
- North: Himavan Parvat in white color.

These mountain figures should be made using colored cloth or cotton. In the case of *Gandhmadan*, artificial or real flowers are also used [21, 25].

Direction of Toran	Name of Toran	Name in other references	Kasht used	Colour and Mountain	Symbols in Vishnu Yagya	Symbols in Shaiv and Shakti Yagya
East	Sudran Toran	Mahavirya and Suvirya	Ashthatva (Ficus religiosa)	सिंदूरवर्णी , Ma- hendra Moun- tain (red)	Shankh (Conch)	Trishul
South	Vikat Toran	Subhadra	Udumbar (Ficus racemosa)	Grey colour, Vindhyachal Mountain	Chakra (Discus)	Trishul
West	Subhim Toran	Sukarma, Bheem	Plaksh (Ficus virens)	Golden colour, Gandhmadan Mountain (with flowers)	Gada (Mace)	Trishul
North	Suprabha Toran	Suhotra and Shashiprabha	Nyagrodh (Ficus beng- halensis)	White colour, Himavan Mountain	Padma (Lotus)	Trishul

Table 1: Systematic Representation of Classification, Placement, Wood Used, Symbols, and Colours in Preparation of Toran

Dhvaja & Pataka

Dhvaja represents a particular deity of the Yagya and is placed in a specific direction of the Yagya Mandap. Dhvaja is installed alongside the Pataka. Both are specific to the type of Yagya being performed and hold great spiritual significance. According to ancient literature, Dhvaja and Pataka help in channeling the spiritual energy of the Yagya. This section focuses only on the dimensions, types, and construction of Dhvaja for the Yagya Mandap (Figure 2, Table 2-3).

According to the ancient text Kundpradeep, in each direction a specific deity is represented, and the color of the Dhvaja varies accordingly: East: Lord Indra — yellow, South-East (Agneya): Agni Devta — red, South: Yamraj (son of Surya Dev) — black, South-West (Nairritya): Nirrti — blue, West: Varun Dev — white, North-West: Vayu Dev — grey, North: Kuber — green, North-East (Ishan): White-colored, Meen Dhvaja (fish-shaped), Between Nairritya and West: Anant Devta — grey (Figure 2).

The shape of the Dhvaja and Pataka is described differently by scholars—some suggest it should be square, while others describe it as triangular. These forms are considered inter-

changeable (Figure 2).

Wood Used for Dhvaja and Pataka Sthambh (Pillar)

Ancient texts recommend specific types of wood for the *Pataka Danda* (flagpole). As per *Smart Kund Samiksha II*:

पताकादण्ड अपि वंशजा दश हस्तोच्छ्रिताः स्यु | ध्वजादी दण्डानां पञ्चाशमानेन भुवि निक्षेपः स्तंभवत कार्य्यः |

(Patakadanda api vanshaja dash hastocchhritah syu, dhvajadi dandanam panchashmanena bhuvi nikshepah sthambhavat karyah.)

This means the pole of the *Pataka* should be made from bamboo and should be 10 *hast* (456 cm) in height. One-fifth of its height should be buried in the ground, just like a *Sthambh* [24, 26].

Color of Dhvaja

The same literature prescribes specific colors for the *Dhvaja* based on direction. Clockwise from the east, the colors are described as: Yellow, White, Grey, Dust-colored blue, Green, Yellow, White. Another sequence includes: Yellow, Red, Black, Blue, White, White, White, Orange, Grey [26].

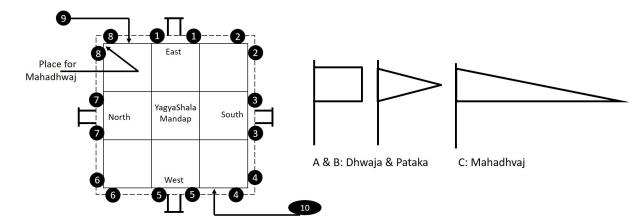


Figure 2: Directions & Placement of *Dhvaja*, *Pataka* (A–B) & *MahaDhwaja* (C). 1. East: Lord Indra — yellow, 2. South-East *Agneya*: Agni Devta — red, 3. South: Yamraj (son of Surya Dev) — black, 4. South-West *Nairritya*: Nirrti — blue, 5. West: Varun Dev — white, 6. North-West: Vayu Dev — grey, 7. North: Kuber — green, 8. North-East *Ishan*: white-colored *Meen Dhvaja* (fish-shaped), 9. Between *Ishan* and East: Brahma, 10. Between *Nairritya* and West: Anant Devta — grey. For each number, a duplicate position is assigned—one for the *Dhvaja* and the other for the *Pataka*.

Sr. No.	Direction	Deity	Colour	Symbol on Dhvaja	Symbol on Pataka and Its Position
1	East	Indra	Yellow	Airavat (Elephant)	Vajra on southern Kasht
2	South-East (Agneya)	Agni Dev	Red	Goat	Shakti Pataka towards south
3	South (Dakshin)	Yamraj	Black	Mahish (Buffalo)	Dand Pataka on west Kasht
4	South-West (Nairritya)	Nirriti	Blue	Lion	Khad Pataka facing north
5	West	Varun	White	Fish/Crocodile	Pash Pataka or Meen Dhyaja on north Kasht
6	North-West (Vayavya)	Vayu Dev	Grey	Mriga (Deer)	Ankush Pataka towards north
7	North	Soma/Kuber	White / Green	Horse (Ashva)	Gada Pataka on east Kasht
8	North-East (Ishan)	Shiva	White	Bull (Vrishabh)	Trishul Pataka in the east
9	Between East and Northeast	Brahma	White	Swan (Hans)	Kamandalu Pataka in the south
10	Between West and Southwest	Anant/Vishnu	White	Garuda	Chakra Pataka towards north

Table 2: Systematic Representation of Direction, Deity, Colour, Symbol of Pataka and Dhvaja

MahaDhvaja

In addition to the directional *Dhvaja*, there is one *MahaDhvaja* (Figure 2C), representing the main deity for whom the Yagya is being performed. The height of this *MahaDhvaja* is ideally 32 *hast* (1459.2 cm). If such a long *Kasht* (wood) is not available, the scriptures permit al-

ternatives: $10 \ hast (456 \ cm)$, $16 \ hast (729.6 \ cm)$, or $21 \ hast (957.6 \ cm)$.

The *MahaDhvaja* is multicolored, comprising five colors, and bears the image of the presiding deity. It should be decorated with *Kinkini* (bells) and *Chamar* (yak-tail whisk) [24, 26, 27].

Colour	Element (Tatva)	Deity (Adhidevta)	Protection From (Badhashanti)	Other Obstacles
Yellow	Prithvi (Earth)	Vishnu	From Neelvarna disturbances	Vaenayiki Badha
White	Jal (Water)	Rudra	From Grahapada	_
Red	Agni (Fire)	Brahma	From violence of Krur Gana	Paishachik-Rakshasi badha
Grey	Vayu (Air)	$N\bar{a}g$	From Hara-varna, Rak- shana, Pishach disturbances	_
Black	Akash (Sky)	Achyuta	From enthusiasm of Survasura	

Table 3: Characteristics of Colour and Their Significance in Dhvaja and Pataka

Plants for Construction of Mandap (यज्ञ वृक्ष)

In the construction of the Yagya Mandap, the selection of appropriate plant wood is of utmost spiritual importance. These plants symbolize specific deities and play an essential role in the success of the Yagya. Hence, the plants used for constructing the Yagya Mandap are sacred and must be selected with great precision.

According to ancient Indian scriptures, as stated in the following shloka:

पलाश फल्गुन्यग्रोधाः प्लक्षा श्रत्थविकड्क्ताः । उदुम्बरा स्तथा बिल्वो चन्दनो यज्ञियश्च ये ॥

(Palāśa phalgunyagrodhāḥ plakṣāś chatthavikaḍaktāḥ | Udumbarāḥ tathā bilvo candano yajñiyaś ca ye.)

This implies that the following are considered Yagya Vriksha (sacred trees for Yagya): 1. Palash (Butea monosperma), 2. textitPhalgunya (Ficus carica – Anjeer), 3. Agrodha/Vaat (Ficus benghalensis – Banyan), 4. Plaksha (Ficus virens – Pakar), 5. Chhattha (commonly identified with Pipal, Ficus religiosa), 6. Vikadkata (Flacourtia indica), 7. Udumbar (Ficus racemosa), 8. Bilva (Aegle marmelos), 9. Chandan (Santalum album)

These trees are also referenced in other authoritative texts related to Mandap construction [25, 30–38].

Scriptures also specify which plants should not be used for constructing the Yagya Mandap. According to *Kriyasaar*, the following are unsuitable: Plants grown domestically (i.e., homegrown); Plants that have naturally broken or

fallen; Dried or decaying plants; Plants that are misaligned or irregular; Plants grown in impure (*Apavitra*) or contaminated areas.

Such woods are considered spiritually inappropriate for constructing the Mandap *Sthambh* (pillars) [25, 28].

Roofing Materials for Mandap

Plants used for covering the roof of the Yagya Mandap include: *Baas* (Vanshlochan, family: Bambusoideae), *Kat* (Kadvi, Colchicum autumnale), *Sarpat* (Tripidium bengalense), *Kush* (Desmostachya bipinnata).

Scriptures advise not to cover the walls of the Mandap, in order to allow proper ventilation within the Yagyashala.

Decorative Elements

For decoration, the following plant-based items can be used: 1. Coconut leaves (Cocos nucifera), 2. Banana stem (Kadali, Musa paradisiaca), 3. Panchpalva (five-leaf combination), which includes: Amra (Mangifera indica – Mango), Jambu (Syzygium cuminii – Jamun), Kapittha (Feronia limonia – Wood apple), Bijapura (Citrus medica – Citron), Bilva (Aegle marmelos – Bael)

These are traditionally accepted for adorning the Mandap in a sacred and aesthetically pleasing manner [38].

Conclusion

This paper addresses the mathematical and architectural dimensions of the Yagya Mandap, focusing particularly on the elements of *Dvar*,

Toran, Dhvaja, and Pataka—components essential to both the structural integrity and symbolic completeness of the Mandap. Rooted in Vedic and classical Indian scriptures, each component not only carries functional significance but also channels divine energies through its form, placement, material, and color.

The study highlights that the Yagya Mandap is not a mere physical structure but a manifestation of sacred geometry, where spiritual, symbolic, and ritual elements are harmoniously integrated. The proportional standards—defined in hast and angul—demonstrate the precise mathematical understanding embedded within the spiritual traditions of India.

While this paper focuses on the structural framework, it acknowledges that the metaphysical aspects—such as deity-specific invocations, energy channels, and color vibrations—are equally important but beyond its current scope.

By documenting and analyzing these traditional prescriptions, this work contributes to the interdisciplinary understanding of Vedic ritual architecture and offers a foundation for further research on integrating sacred science with modern architectural practices.

Compliance with ethical standards Not required. Conflict of interest The authors declare that they have no conflict of interest.

References

- Chandel E. Mathematical and Scriptural Aspect of Yagya Mandap Construction. Interdis J of Yagya Res. 2022 Sep 2;5(1):20-9. https://doi.org/10.36018/ijyr.v5i1.85
- [2] Sharma PSR. Yagya Ka Gyaan Vigyaan. Mathura: Janjagran Press; 1998. p. 5.37.
- [3] Chandel E. Mathematical and Scriptural Aspect of Yagya Mandap Construction. Interdiscip J Yagya Res. 2022;5(1):20-29. https://doi.org/10.36018/ijyr.v5i1.85
- [4] Ojha M. Yagya-Madhusoodan: स्मार्तकुण्ड समीक्षा अध्यायः, Chapter 'अथ मंडपायतनम्'. Ajmer: Vedic Press; 1928. p. 12.
- [5] Katyayan MA. Kundark. Varanasi: Choukhamba Publishing House; 2014. p. 60.
- [6] Malviya S. Sharda Tilak Tantram. 'मंडप स्तंभिनवेशनम्'. Vol. 1. Delhi: Chowkhamba Sanskrit Pratishthan; 2001. p. 161.
- [7] Shastri S. Mandap Kund Sangrah. Mandakund Siddhi, Shloka 21. Haridwar: Bhartiya Vidha Sansthan; 2019.
 p. 11.

- [8] Shastri S. Mandap Kund Sangrah. Kundark, Shloka 11. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 35.
- [9] Shastri S. Mandap Kund Sangrah. Kundmartand, Shloka 24. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 55.
- [10] Shastri S. Mandap Kund Sangrah. Kundkoumudiah, Shloka 34–43. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 80–81.
- [11] Shastri S. Mandap Kund Sangrah. Kundpradeep, Shloka 5. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 107.
- [12] Shastri S. Mandap Kund Sangrah. Kundodadhi, Shloka8–9. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 117.
- [13] Shastri S. Mandap Kund Sangrah. Kundratnakar, Shloka 25–26. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 125.
- [14] Shastri S. Mandap Kund Sangrah. Kundarnvah, Shloka 51–58. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 155.
- [15] Shastri S. Mandap Kund Sangrah. Kundoghotah, Shloka 23. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 193.
- [16] Shastri S. Mandap Kund Sangrah. Kundtatva Pradeep, Shloka 20–21. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 224.
- [17] Shastri S. Mandap Kund Sangrah. Kundkalpdrum, Shloka 21. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 251.
- [18] Shastri S. Mandap Kund Sangrah. Kundmandap, Shloka 27–30. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 293.
- [19] Shastri S. Mandap Kund Sangrah. Kundramvajpaye, Shloka 26–27. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 306.
- [20] Shastri S. Mandap Kund Sangrah. Kundmarichimala, Shloka 47. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 337.
- [21] Malviya S. Sharda Tilak Tantram. 'मंडप स्तम्भ निवेशनम', Shloka 22. Vol. 1. Delhi: Chowkhamba Sanskrit Pratishthan; 2001. p. 162.
- [22] Ojha M. Yagya-Madhusoodan: 'अथ मंडपायतनम्'. Ajmer: Vedic Press; 1928. p. 13.
- [23] Malviya S. Sharda Tilak Tantram. Shloka 21. Vol. 1. Delhi: Chowkhamba Sanskrit Pratishthan; 2001. p. 161.
- [24] Malviya S. Sharda Tilak Tantram. Shloka 22. Vol. 1. Delhi: Chowkhamba Sanskrit Pratishthan; 2001. p. 163.
- [25] Sharma PSR. Yagya Ka Gyaan Vigyaan. Mathura: Janjagran Press; 1998. p. 5.37.
- [26] Katyayan MA. Mandap Kund Siddhi. Varanasi: Choukhambha Surbharti Prakashan; 2017.
- [27] Ojha M. Yagya-Madhusoodan: 'अथ मंडपायतनम्'. Ajmer: Vedic Press; 1928. p. 14.

- [28] Malviya S. Sharda Tilak Tantram. 'ध्वज बन्धनं', Shloka 26. Vol. 1. Delhi: Chowkhamba Sanskrit Pratishthan; 2001. p. 166–167.
- [29] Ojha M. Yagya-Madhusoodan: Smart-Kund Samiksha Adhyayah. Ajmer: Vedic Press; 1928.
- [30] Sharma PSR. Yagya Ka Gyaan Vigyaan. Mathura: Janjagran Press; 1998. p. 5.45.
- [31] Shastri S. Mandap Kund Sangrah. Mandakund Siddhi, Shloka 22. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 11.
- [32] Shastri S. Mandap Kund Sangrah. Kundodadhi, Shloka43. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 81.
- [33] Shastri S. Mandap Kund Sangrah. Kundratnakar, Shloka 29–30. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 124.

- [34] Shastri S. Mandap Kund Sangrah. Kundakush, Shloka 12. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 188.
- [35] Shastri S. Mandap Kund Sangrah. Kundoghot, Shloka 32. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 115.
- [36] Shastri S. Mandap Kund Sangrah. Kundtatva Pradeep, Shloka 27–29. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 225.
- [37] Shastri S. Mandap Kund Sangrah. Kundkalpdrum, Shloka 32. Haridwar: Bhartiya Vidha Sansthan; 2019. p. 259.
- [38] Acharya R. Evaluation of pharmacognostical changes in the mature and tender leaves of Panchapallava (group of five leaves), described in Ayurveda. Int J Green Pharm. 2016;9:86–99.