

Botanical Identity of Plants Used in the Traditional Indian ritual – ‘Hawana’

Subrahmanya Prasad K* and Raveendran K

Department of Post Graduate Studies and Research in Botany
Sir Syed College, Taliparamba, Kannur – 670 142
Email: prasadks.1090@rediffmail.com

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Abstract

Rituals are part of Indian society even from vedic period. *Hawana* is one of the most important vedic ritualistic sacrifice which involves lighting fire in a rectangular *Homa Kunda* using *dravyas*. In the present scenario these are performed at the beginning of *Shubha Karyas* to get expected results. The priests conducting the *hawanas* has been interviewed. Personal observations of eight important forms of *hawana* were done throughout the study area. A comparative account of plants used in 8 types of *hawana* have been given. In present communication Botanical identity of 55 taxa, their vernacular name, family, useful part and mode of usage have been documented.

Key words : Rituals, Hawana, Botanical identity.

Introduction

Rituals are part of human life since time immemorial. In the past man was living according to the tune of Mother Nature. But conditions changed after the advent of civilization, the civilized man became religious while the religious approach has deviated him from his original objectives and remained only as a ritual. The historical function of the rituals is to remind us about our immemorial past and connects the past generation with the present like a bridge.

India is a country, which is rich in rituals. The rituals like *hawana*, *pooja* are performed according to the procedure described in the *Vedas*, *Upanishads*, *Dharmasindhu*, *Nirnayasindhu*, *Vishwamitra karika* and Bodhayana's *Brahmakarma Samucchaya* to reap the benefit in the form of good health and ecological balance. There are hundreds of *homas* or *hawanas*. The common among them are *Agnihotra*, *Ganapathi hawana*, *Grahashanthi*, *Mruthyunjayashanthi*, *Sandhishanthi*, *Vasthu Rakshoghna homa*, *Tila homa*, *Puthrakameshti* and many more. *Agnihotra* is a simple form of *homa* which involves lighting fire in a small rectangular copper pyramid pot, using direct cow dung cakes and ghee as offerings to the fire with whisper of *mantras* at sunrise and sunset (Golechha *et al*; 1987). *Hawanas* are modified forms of *agnihotra* and includes lighting fire on a rectangular *Homa kunda* prepared using bricks or plantain stem and offering *dravyas* with chanting

of *mantras*. *Dravyas* include milk and milk products, cakes made up grain and cereal powder, boiled rice and *samidhas* (plants and their parts).

During the recent years these have become very popular around the globe due to their therapeutic efficacy. Experiments conducted by various workers reveal that *agnihotra* fumes along with 'mantras' reduce the aerial microbial flora and also reduce the bioenergetic systems of *Staphylococci* (Mondkar A G, 1982). Analysis of *agnihotra* ash showed that it has the potentiality to heal the wounds and scabies (Mondkar A G, 1982), it is 3-4 times richer in water soluble phosphate which is essential for plants (Tung Ming Lai, 1982). Treatment with *agnihotra* improves germination of rice (Heisnam Jina Devi *et al*; 2004), grape seeds and also quality of grape raisins (Bhujbal B G, 1981). Efficacy of *agnihotra* on mind and body (Selvamurthy, 1989), microbial content of atmosphere(Mondkar A G, 1982), radioactivity (Matela Leszek, 1988), people and environment (Surendra Rawat & Nagendra H R, 2007), recovery of drug addict(Golechha *et al*; 1987) and treatment of alcoholism(Golechha *et al*; 1991) have been reported. Experiment conducted with *Grahashanthi homa* showed gradual decrease in the microbial flora as the *homa* progresses(Subrahmanya Prasad, 2006).

The paper lists out the different plants, plant parts and other materials used in different *hawana*. An attempt is also made to compare the materials used in 8 popular *hawanas* through our observation.

Methodology

At the beginning of study informations regarding the different *hawanas*, the materials used in it, the method of performance, beliefs, benefits from it were collected through personal interview with a number of *vedic pandits*. For getting familiar with the materials used in these rituals and performance, personal observations were done by attending a number of *hawanas* both in Northern Kerala and Southern Karnataka. After getting familiar with the materials used in these rituals, the plants are identified using the regional floras. For getting acquainted with detailed procedure these *hawanas* are fully recorded through video and photographs.

Results and Discussions

The different plants used in the eight common *hawanas* are tabulated below (Table No.1). This table gives correct botanical name of plants, their family, common name, morphology of useful part, use and mode of usage. A total of 55 plant species belonging to 49 genera and 29 families are being used in these rituals. Out of these 55 only 15 species are used in all the 8 *hawanas*. *Saccharum officinarum* L. is used in all the *hawanas* except *Vasthu Rakshoghana hawana* while *Callicarpa tomentosa* (L.) Murray. used only in *Shukrarka Shanthi*, *Hordeum vulgare* L. only in *Rahu Bruhaspathi Shanthi*, *Gossypium barbadense* L., *Hibiscus rosa-sinensis* L., and *Tinospora cordifolia* (Willd.) Hook.f. & Thoms. make their presence only in *Mruthyunjaya Shanthi*. Definite number of plants have been prescribed for each *hawana* as for *Grahashanthi* – 49 plants, *Ganapathi hawana* – 18 plants, *Putrakameshti* – 22 plants, *Kujarahu Shanthi* – 49 plants, *Rahubruhaspathi Shanthi* – 50 plants, *Shukrarka Shanti* – 50 plants, *Mruthyunjaya Shanthi* – 44 plants and *Vasthurakshoghna hawana* – 22 plants.

Table 1. Plants used in different Hawanas.

Sl. No.	Plant Name	Gr.H	G.H.	P.K.	K.R.	R.B.	S.A.	M.S	V.R	Family	Vernacular Name	Part Used	Uses in Hawanas
1.	<i>Acacia chundra</i> Willd.	X	-	-	X	X	X	X	-	Mimosaceae	'Khadira'	Twig	'Samidha'
2.	<i>Achyranthes asper</i> L.	X	-	-	X	X	X	X	-	Amaranthaceae	'Apamarga'	Twig	'Samidha'
3.	<i>Aegle marmelos</i> (L.) Correa.	X	-	-	X	X	X	X	X	Rutaceae	'Bilvah'	Leaves, Heart Wood	'Pooja', Fire Wood
4.	<i>Areca catechu</i> L.	X	X	X	X	X	X	X	X	Arecaceae	'Pooga'	Fruit, Inflorescence	'Pooja'
5.	<i>Artocarpus heterophyllus</i> Lam.	X	X	X	X	X	X	X	X	Moraceae	'Panasah'	Heart Wood, Leaves	Fire Wood, 'Kalasha'
6.	<i>Bauhinia variegata</i> L.	X	-	-	X	X	X	X	-	Caesalpiniaceae	'Kanchanara'	Flower	'Pooja'
7.	<i>Benincasa hispida</i> (Thunb.) Cogn.	-	-	-	-	-	-	X	X	Cucurbitaceae	'Kushmanda'	Fruit	'Pooja'
8.	<i>Butea monosperma</i> (Lam.) Taub.	X	-	X	X	X	X	X	X	Papilionaceae	'Palasa'	Twig, Heart Wood	'Samidha', Fire Wood
9.	<i>Cajanus cajan</i> (L.) Millsp.	X	-	-	X	X	X	-	-	Papilionaceae	'Tuarika'	Seeds	'Danam'
10.	<i>Callicarpa tomentosa</i> (L.) Murray	-	-	-	-	-	X	-	-	Verbenaceae	'Priyangu'	Seeds	'Dravya'
11.	<i>Calotropis gigantea</i> (L.) R.Br.	X	X	-	X	X	X	X	-	Asclepiadaceae	'Arkah'	Twig, Flower	'Samidha', 'Pooja'
12.	<i>Cicer arietinum</i> L.	X	-	-	X	X	X	-	-	Papilionaceae	'Canaka'	Seeds	'Danam'
13.	<i>Citrus aurantifolia</i> (Christm.&Panz.) Swingle.	X	-	-	X	X	X	-	-	Rutaceae	'Nimbu'	Fruit Juice	To prepare colouring powder
14.	<i>Cocos nucifera</i> L.	X	X	X	X	X	X	X	X	Arecaceae	Kalpavrksha	Fruit Wood	Dravya, Pooja, Fire Wood
15.	<i>Curcuma longa</i> L.	X	-	-	X	X	X	X	X	Zingiberaceae	'Haridra'	Rhizome powder	Colouring powder
16.	<i>Cynodon dactylon</i> (L.) Pers.	X	X	X	X	X	X	X	X	Poaceae	'Durva'	Whole plant	'Samidha', 'Pooja'
17.	<i>Desmostachya bipinnata</i> (L.) Stapf.	X	X	X	X	X	X	X	X	Poaceae	'Darbhah'	Leaves	'Samidha', 'Dravya'
18.	<i>Dichrostachys cinerea</i> (L.) Wight. & Arn.	X	-	-	X	X	X	-	-	Mimosaceae	'Shami'	Twig	'Samidha'
19.	<i>Ervatamia divaricata</i> (L.) Alston.	X	-	-	X	X	X	X	-	Papilionaceae	'Nispavah'	Seeds	'Danam'
20.	<i>Ficus benghalensis</i> L.	X	-	X	X	X	X	X	-	Apocynaceae	'Nandyavartah'	Flowers	'Pooja'
21.	<i>Ficus microcarpa</i> L.f.	X	-	X	X	X	X	X	-	Moraceae	'Vata'	Twig, Bark	'Samidha', 'Kalasha'
22.	<i>Ficus racemosa</i> L.	X	X	X	X	X	X	X	X	Moraceae	'Plaksa'	Bark	'Kalasha'
23.	<i>Ficus religiosa</i> L.	X	X	X	X	X	X	X	X	Moreceae	'Udumbara'	Twig, Bark, Heart Wood	'Samidha', 'Kalasha', Fire Wood

24.	<i>Ficus tsjahela</i> Burm. f.	X	-	X	X	X	X	X	-	Moraceae	'Ashwatha'	Twig, Bark, Heart Wood	'Samidha', 'Kalasha', Fire Wood
25.	<i>Gossypium barbadense</i> L.	-	-	-	-	-	-	X	-	Moraceae	'Basri'	Bark	'Kalasha'
26.	<i>Hibiscus rosa-sinensis</i> L.	-	-	-	-	-	-	X	-	Malvaceae	'Karpasa'	Fruit wall fibres	'Danam'
27.	<i>Hordeum vulgare</i> L.	-	-	-	-	X	-	-	-	Malvaceae	'Japa'	Flowers	'Pooja'
28.	<i>Ixora coccinea</i> L.	X	-	-	X	X	X	-	-	Poaceae	'Yava'	Seeds	'Dravya'
29.	<i>Jasminum sambac</i> (L.) Ait.	X	-	-	X	X	X	X	-	Rubiaceae	'Bandhuka'	Flower, leaves	'Pooja'
30.	<i>Jasminum sambac</i> (L.) Ait.	X	-	-	X	X	X	X	-	Oleaceae	'Jaji'	Flower, Leaves	'Pooja'
31.	<i>Lablab purpureus</i> (L.) Sweet.	X	-	-	X	X	X	-	-	Oleaceae	'Malati'	Flower, leaves	'Pooja'
32.	<i>Leucas aspera</i> (Willd.) Link.	X	-	-	X	X	X	X	-	Lamiaceae	'Drona'	Flowers	'Pooja'
33.	<i>Macrotyloma uniflorum</i> (Lam.) Verdc.	X	-	-	X	X	X	-	-	Papilionaceae	'Kulatta'	Seeds	'Danam'
34.	<i>Mammea suriga</i> (Buch. Ham.ex.Roxb.) Kostermans.	X	-	-	X	X	X	X	-	Clusiaceae	'Suragi'	Flowers	'Pooja'
35.	<i>Mangifera indica</i> L.	X	X	X	X	X	X	X	X	Anacardiaceae	'Amrah'	Bark, Shoot tip	'Kalasha'
36.	<i>Michelia champaca</i> L.	X	-	-	X	X	X	X	-	Magnoliaceae	'Champa'	Flowers	'Pooja'
37.	<i>Musa paradisiaca</i> L.	X	X	X	X	X	X	X	X	Musaceae	'Kadali'	Fruit	'Dravya'
38.	<i>Nerium oleander</i> L.	X	-	-	X	X	X	X	-	Apocynaceae	'Karavirah'	Flower, Leaves	'Pooja'
39.	<i>Nyctanthes arbor-tristis</i> L.	X	-	-	X	X	X	X	-	Oleaceae	'Parijatah'	Flower, Leaves	'Pooja'
40.	<i>Ocimum sanctum</i> L.	X	X	X	X	X	X	X	X	Lamiaceae	'Tulasi'	Leaves	'Pooja'
41.	<i>Oryza sativa</i> L.	X	X	X	X	X	X	X	X	Poaceae	'Danyah'	Seeds	'Dravya', 'Danam'
42.	<i>Phyllanthus emblica</i> L.	X	X	X	X	X	X	X	X	Euphorbiaceae	'Amla'	Heart wood, Leaf powder	Fire Wood, Colouring powder
43.	<i>Piper betle</i> L.	X	X	X	X	X	X	X	X	Piperaceae	'Nagavalli'	Leaves	'Pooja'
44.	<i>Pterocarpus santalinus</i> L.f.	X	X	X	X	X	X	X	X	Papilionaceae	'Raktachandana'	Heart Wood	'Dravya'
45.	<i>Saccharum officinarum</i> L.	X	X	X	X	X	X	X	-	Poaceae	'Ikshukanda'	Stem	'Dravya'
46.	<i>Santalum album</i> L.	X	X	X	X	X	X	X	X	Santalaceae	'Chandanam'	Heart Wood, Leaf powder	'Dravya', Colouring powder
47.	<i>Sesamum orientale</i> L.	X	X	-	X	X	X	X	X	Pedaliaceae	'Tila'	Seeds	'Dravya', 'Danam'
48.	<i>Solanum indicum</i> L.	X	-	X	X	X	X	X	-	Solanaceae	'Brhati'	Leaves	'Pooja'
49.	<i>Stereospermum chelenoides</i> (L.f.) DC.	X	-	-	X	X	X	X	-	Bignoniaceae	'Patali'	Flowers	'Pooja'

50.	<i>Syzygium cumini</i> (L.) Skeels.	X	-	X	X	X	X	X	-	Myrtaceae	'Jambu'	Bark	'Kalasha'
51.	<i>Tinospora cordifolia</i> (Willd.) Hook.f.& Thoms.	-	-	-	-	-	-	X	-	Menispermaceae	'Guduchi'	Twig	'Samidha'
52.	<i>Triticum dicoccum</i> Schubler	X	-	-	X	X	X	-	X	Poaceae	'Godhuma'	Seeds	'Dravya', 'Danam'
53.	<i>Vigna mungo</i> (L.) Hepper.	X	-	-	X	X	X	X	-	Papilionaceae	'Masha'	Seeds	'Dravya', 'Danam'
54.	<i>Vigna radiata</i> (L.) Wilczek.	X	-	-	X	X	X	-	X	Papilionaceae	'Mudgaparni'	Seeds	'Danam', 'Dravya'
55.	<i>Vitex negundo</i> L.	X	-	-	X	X	X	X	-	Verbenaceae	'Nirgundi'	Leaves	'Pooja'

Where 'x' indicates presence of the plant, '-' indicates absence, Gr.H – *Grahashanthi hawana*, G.H.- *Ganapathi Hawana*, P.K. – *Putrakameshti yaga*, K.R.- *Kuja Rahu Shanthi*, R.B.- *Rahu Bruhaspathi Shanthi*, S.A. – *Shukrarka Shanthi*, M.S. – *Mruthyunjaya Shanthi*, V.R. – *Vasthu Rakshoghna Shanthi*.

Among plant parts used leaves and flowers show dominance as 14 types of these make their appearance while rhizome, whole plant and fruit wall fibre are least dominant with a single appearance. 22 plants or their parts are used for *pooja* during the *hawana*, while 12 as *dravya* (plant products used as offering to the fire at the end of *hawana* or to make *prasadam*), 11 as *samidha* (plant and plant parts used as oblation to the sacred fire), 10 for *danam* (offering to the brahmins), 8 for *kalasha* (decoction prepared using plant barks, to which *pooja* is performed, and after the *hawana*, sprinkled over the family members), 7 as fire wood of *hawana* and 4 for preparing colouring matter, which is used to draw specific designs at the *yaga* performing area. From the data it is evident that Papilionaceae is the dominant family as 8 species are used in *hawanas* followed by Moraceae with 6 members. Seeds of Papilionaceae members are used as *danam* while barks or twigs of Moraceae members are either used as *samidha* or for *kalasha*. Similarly different parts of a plant are used for different purposes, which is evident in case of *Ficus religiosa* L. Its twig is used as *samidha*, while bark for *kalasha* and heart wood as fire wood.

Out of these 55 plants, *Mangifera indica* L., *Achyranthes aspera* L., *Calotropis gigantea* Ait., *Ficus religiosa* L., *F.racemosa* L., *F.benghalensis* L., *Aegle marmelos* (L.) Correa., *Solanum indicum* L., *Michelia champaca* L., *Phyllanthus emblica* L., *Cynodon dactylon* (L.) Pers., *Jasminum grandiflorum* L., *J. sambac* (L.) Ait., *Musa paradisiaca* L., *Nerium oleander* L., *Piper betle* L., *Butea monosperma* (Lam.) Taub, are used in *Patra-pooja* in Maharashtra(Vinaya S Ghate, 1998). In Maharashtra *Prosopis cineraria* Engl. is used as source of *Shami* for *Patra-pooja* while *Dichrostachys cinerea* (L.) Wight.&Arn. is used as *Shami* for *hawana* in

our study area . Similarly *Lablab purpureus* (L.) Sweet and *Benincasa hispida* (Thunb.) Cogn. are used in *Govardhan pooja* and *Annakut* in Mathura (Neeta Singh & Chauhan S V S, 2002) while *Hordeum vulgare* L., *Piper betle* L., *Ficus benghalensis* L., *Cocos nucifera* L., *Cynodon dactylon* (L.) Pers., *Desmostachya bipinnata* (L.) Stapf., *Oryza sativa* L., *Areca catechu* L., *Santalum album* L., *Sesamum orientale* L., and *Ocimum sanctum* L. are used in *Pindadan* ceremony (Anil Kumar & Yadav D K, 2004). *Ficus benghalensis* L., *Ficus racemosa* L., *F. religiosa* L., *Butea monosperma* (Lam.) Taub., and *Aegle marmelos* (L.) Correa. are the 5 plants which are used as *yajna* trees in *Agnihotra* (Heisnam Jina Devi, 2004).

It is clear that all these plants are well known for their medicinal properties. The smoke, light and heat arising from these are acting as germicidal agents in a eco friendly manner. Of course the cyclic process is invisible and therefore further studies should be carried out to recognize the real relevance.

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