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Urban ethnobotanical studies from some temples of Udaipur city, Rajasthan, India

Vartika Jain[1*] and S K Jain[2]

[1]Department of Botany, Govt. Meera Girls College, Udaipur-313001, Rajasthan
[2]26-A, Avas-Vikas Colony, Mall Avenue Colony, Lucknow-226001, U.P.
[*]vartikajain31@gmail.com

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Abstract

Ethnobotany is generally considered as man-plant relationships among forest dwellers and other rural folk. A rich knowledge about the plants also exists among urban communities. Study of plants which are being used in urban environments forms a branch of Ethnobotany termed as Urban Ethnobotany. Various places of worship in cities and towns such as temples, mosques, churches etc., are custodians of cultural traditions prevalent in society. An urban ethnobotanical survey was carried out in some prominent temples of Udaipur, a well known city of Rajasthan, India. In total, 43 plant species were observed being used in various forms in the temples of the city. This included not only wild but also few cultivated plant species such as *Aegle maremlos* (L.) Corr., *Achyranthes aspera* L., *Calotropis procera* (Aiton) Dryand, *Allamanda blanchetii* A. DC., *Polianthes tuberosa* L., *Cascabela thevetia* (L.) Lippold. etc. The present paper highlights the importance of botanical knowledge existing among urban people and opens new avenues in ethnobotanical studies.

Keywords: Urban Ethnobotany, Temple, Urban tribes, Cultural-material relationships

1. Introduction

Ethnobotany is the study of every kind of relationship existing between plants and people. Certainly, there are various dimensions of this dynamic subject and recently Urban Ethnobotany is one of them (Jain and Jain, 2017). Urban Ethnobotany is the study of plants which are being used in urban environments. Concept of Urban Ethnobotany flourished outside Asia mainly during last two decades (Balick *et al*., 2000; Pieroni *et al*., 2005). However, in India which is a land of immense ethnic, social and floristic diversity, need for such studies is not realized until recent. Therefore, dimensions and applications of Urban Ethnobotany are presently a matter of intensive deliberation in the country. Almada (2011) has suggested five areas of study in this specific branch of Ethnobotany. Hurell and Pochettino (2014) have given theoretical and methodological contributions on Urban Ethnobotany and developed the concepts on Traditional Botanical Knowledge (TBK) and Non-Traditional Botanical Knowledge (NTBK). They suggested that NTBK is culturally heterogeneous in nature and not gained through long experience of human groups in their environment. Further, NTBK shows indirect relationships between production and consumption as those who consume do not themselves produce. Mostly, urban communities do not know much about properties of plants as well as their procurement

and processing details (Balick and Cox, 1996) and therefore, their knowledge is suggested to be part of NTBK. But in fact, Urban Botanical Knowledge (UBK); that is the botanical knowledge linked to traditions in urban areas is complex, dynamic and adaptive in nature. It is a mixture of different traditional and non-traditional components, sometimes interacting with each other and acting independently as well. Some man-plant relationships are visible in urban communities as such in a traditional manner whereas some innovative modifications among urban man-plant relationships could also be observed in either need-based or culture-based man-plant relationships or in both.

More than half of the world's human population reside in cities. Cities constitute varied environments such as parks, gardens, home gardens, waste lands, agriculture lands, residential colonies and many others having varied floristic diversity along with immense cultural diversity of people (Emery and Hurley, 2016). Udaipur, popularly known as 'City of Lakes' is one of the most picturesque cities of Rajasthan, surrounded by *Aravali* Hills and finds a significant place on tourist map of the world. As per Census 2011 (https://www.census2011.co.in/census/city/92-udaipur.html), urban population of Udaipur is 474531 with an average literacy rate of 89.52%. Recent declaration of Udaipur under Smart City Project has initiated a wide range of city beautification programs having impact also on the existence of natural biodiversity (Jain and Tak, 2018).

With a constant flow of social diversity and biodiversity to urban areas, cities demonstrate a wide amalgamation of rural, urban, migratory and tourist populations and impact of such combination can be visualized in many forms. Due to such diversity in cities, Pais and Blass (2004) considered people living in urban areas as distinct 'urban tribes'. During urban ethnobotanical studies, sometimes it seems difficult to clearly set a boundary between rural, urban and semi-urban settings; but help of State gazetteers is helpful in that case.

There are various dimensions of UBK that could be studied in Udaipur city. Usually places of worship of every religion or spiritual cult are custodians of traditions, rituals, moral and cultural values. Ethnobotanical studies of these places may reveal many hidden aspects of traditions prevalent in those areas. Plants are closely associated with man to express various cultural domains which could be called as culture based man-plant relationships as per the recent classification of man-plant relationships given by Jain and Jain (2017). Relationships in which plants or plant parts are used by man as offerings or in festivals, social ceremonies, games or for ornamentation purpose come under the category of cultural-material relationships. In order to study the ethnobotanical aspects, few prominent temples of Udaipur city as places of worship were selected and surveys were carried out.

2. Materials and Methods

An attempt has been made to study the UBK associated with places of worship in Udaipur city. For this purpose, 19 important temples of city based on their locality and popularity were selected. Ethnobotanical surveys were carried out in these temples during June-August 2018 (once in every week) and all kinds of plant species being used there either for worship, ornamentation or any other purpose were collected, photographed and noted down for future use. Prior permission for photography was obtained at places where it was prohibited. Different sellers who were selling various plant materials inside or outside the temple premises were considered as qualified informants and they were inquired about the use, availability and rate of the plant material through semi-structured interview. Informal interviews about the use of different plant species being sold there were also taken from some middle-aged people visiting these temples irrespective of their gender. Plants were identified with the help of flora and currently accepted botanical and family names were adopted (Shetty and Singh, 1987-1993; Tiagi and Aery, 2007; www.theplantlist.org). However, species identity could not be ascertained for few genera. A list of temples visited and sellers interviewed is given in Table 1. In the Table 2, the list of plants observed during study in alphabetical order by their botanical names, families, local and english names, useful plant part and uses are given.

3. Results and Discussion

In the present study, 43 Angiosperm plant species (both wild and cultivated) belonging to 15 Dicotyledonous and 10 Monocotyledonous

families were found to be used either for worship, adornation of idols and temples and other uses (Table 2, Fig. 1-22). Among fragrant yielding flowers, Apocynaceae tops the list with maximum six plants, followed by Asteraceae with four plants and Poaceae and Rutaceae each with three plants. There were 16 plants being used exclusively for offering and six plants for decoration purposes. Eighteen plants were observed to be used for both purposes and rest of the three plants were used for other purposes as mentioned in Table 2. Among use of the most frequent plant part, flowers of 21, fruits of 10 and leaves of 7 plant species besides other parts were observed to be used in the study (Fig. 23).

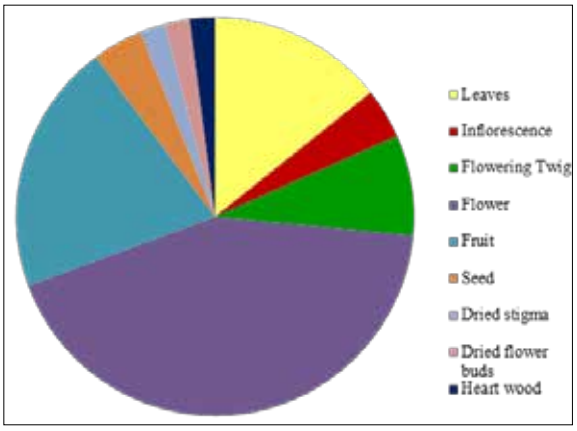

Fig. 23. Frequency pattern of use of various plant parts observed during study

Out of 19 temples, there were three temple yards, where various plants were being cultivated so that one can get some fresh plant parts readily available for worship. It has one more advantage as some delicate flowers such as of *Hibiscus rosa-sinensis* doesn't wither which would have, if one brings it all the way from home to temples. In most of the Jain temples, use of almond, clove, rice and wheat as offering and saffron and sandalwood for idol worship were observed. Besides, saffron and sandalwood, people were bringing other plant materials for offering to *Tiirthankars* from their homes. Leaving aside Jain temples, most of the plant materials were being sold openly either as such or in the form of garlands in and/or outside the temple premises (Fig.1-6). It is important to mention here that at all the studied temples; salesperson selling various plant materials for offering were always females of different ages. Interaction with the sellers regarding availability of those plants/parts in the city revealed that some wild plant species such as *Datura*, *Calotropis* and *Typha* were not easily found in city premises and they have to bring them from quite a distance to the temple sites; hence they were being sold at higher price as compared to flowers/leaves which were easily available in the city.

As a tradition, flowers of *Calotropis* spp., *Datura* spp., *Cascabela thevetia* and leaves of *Aegle marmelos* were mostly being offered in Lord *Shiva* Temples (Fig. 11-14). Most of these traditional offerings to *Shiva* temples were also mentioned in *Puranas* (Sensarma, 1989) and this tradition is being maintained till date. On inquiry from some middle-aged worshippers, it was revealed that they worship Lord *Shiva* with these particular flowers as it was mentioned by their elders. This emphasizes the role of narratives in propagation of traditional knowledge and also suggests that some aspects of UBK are always linked to traditions.

Interestingly, some of the *Shivlingas* were also decorated by flowers of *Allamanda blanchetii, Polianthes tuberosa, Tithonia rotundifolia,* etc., (Fig. 7-8) which are the plants mostly cultivated in urban areas as in some municipal and home gardens. These species have not been mentioned earlier for this purpose in ethnobotanical literature (Jain 1991; Jain and Jain, 2016). The use of plants such as *Asparagus*, *Heliconia*, *Dendrobium* spp. for decorating temple premises also reflect the novel urban inputs of aesthetics by use of various cultivated ornamental plant species (Fig.15-16). Notably, these plants were procured from some flower shops of the city and not being sold outside the temples. Usually, traditional knowledge is considered to be lost with time along with process of migration and urbanization as studied by Zhang *et al*. (2016) in China. But this is not always the case. The present result substantiates the dynamic nature of man-plant relationships by addition in existing knowledge of uses of plants by people living in urban settings and also validating the need and importance of urban ethnobotanical studies in diverse urban agglomerations.

Flowers of Lotus were being offered mainly in Udaipur's one of the most famous *Jagdish* temple and also in *Mahalaxmi* temple; both situated almost in the heart of the city and were being sold at the price of Rs. 20/flower. A flowering

twig of one of the most revered plant of country *i.e. Ocimum tenuiflorum* L. was also being sold outside *Jagdish* temple at a price of Rs. 10. It was observed that flowers of *Tagetes erecta* and *Gaillardia* spp. were maximally used for making garlands in most of the temples. These flowers were cultivated in some agricultural lands situated in peri-urban areas (production place) and supplied daily in huge quantities to the urban areas (consumption place) implying UBK as NTBK as per the classification of Hurell and Pochettino (2014). Garlands of these flowers were sold at Rs. 5 or 10 each depending on quantity of flowers used in making garlands and observed to be either used for decoration of the temple premises or offered for worship. This also exhibits that large scale cultivation of plants which are associated with various social and religious rites and even other events of life helps in the generation of additional income for rural population and traders located in urban areas. Certainly, use of any particular plant species at these places may vary from season to season as per the availability of plant material and it is realized that a year round survey is required to get the complete picture about the type of plants utilized at places of worship.

Bohra Ganesh temple is one of the most famous *Ganpati* temples in the city. People visit the temple to seek the blessings of *Ganpati* for any auspicious occasion in their family such as marriage or house warming or purchase of new vehicle. Inflorescence of *Pandanus* sp. was observed to be offered only at this temple during the study and it was not being sold outside the temple. On inquiry, it was found that this was offered by some devotee who procured it from their home garden.

Use of *Cocos nucifera* L. fruit for offering purpose was observed at all the studied temples. Coconut is considered as an auspicious tree, almost all over the country (Jain, 1991; Jain and Jain, 2016) and its offering by urban communities also endorses this fact. Sellers also informed that due to non availability of leaves of *Polyalthia longifolia* (Sonner.) Thwaites *(*False Ashok), they were using leaves of *Mimusops elengi* L. (Spanish Cherry) for preparing floral garlands showing the creative aspect of UBK by using green leaves of Spanish Cherry during non availability of false Ashok leaves.

Fibers isolated from leaves of *Typha* spp. were observed to be used as a thread to tie the floral garland. However, this practice was observed only in two temples of the city and is slowly vanishing. It was informed that the plant is not available easily and due to difficulty in its collection from aquatic sites which are located at a distance from the city. Nowadays synthetic threads are utilized in most of the temples. This corroborates the concept that UBK also depicts vivid human actions for selection and consumption of any particular plant/part (Hurell and Pochettino, 2014). Fibers of *Typha* had been mentioned for making ropes in earlier ethnobotanical studies in Rajasthan by Singh and Pandey (1998). Currently, its natural fibers are under research for their potential use in preparing biodegradable film composites as also for other uses (Witztum and Wayne, 2014). In this regard, this ethnobotanical practice is an important observation.

It was interesting to note that along with material for worship like various plant parts, garlands, incense sticks, etc., one lemon, 2-3 green chillies and a small piece of charcoal, all tied together in a thread were also being sold outside some of the temple sites (Fig. 2). Usually hung at entrance of doors or on new vehicles, many educated and also less educated people were readily purchasing it as it was considered to be an effective step to get protection from evil eyes. It is not exaggeration to say that this practice shows the survival of traditions in urban environments and suggests that education does not have much influence on faith and belief systems existing in a community.

A hidden fact was that, whatever may be the tradition of using these plants for worshipping, the fate of these plant materials after their use were poor as no appropriate disposal facilities of used plant material were observed at five of the studied temples. The waste were thrown outside the temple premises to decay in open space which were collected after some days by door-to-door waste collection vans, a recent initiative of smart and clean city project.

As compared to rural and tribal ethnobotany, which is mostly endemic in nature, UE could be called as Pan-Indian, where integration and dispersion of various cultural domains are observed. Further, it can be understood

that, several ethnobotanical plants used by forest dwellers, tribes and other rural folk do eventually lead to the realm of economic botany for example *Phyllanthus emblica* which is an important constituent of several ethnomedicines is often collected by contractors or forest co-operatives for eventual commercialization. In urban ethnobotany, not few but large number of plants associated with traditional customs and beliefs fall in the realm of economic botany.

Fig. 1-6. Selling of plant materials inside and outside of temple premises in Udaipur city

7 8 9 10

Fig. 7-10. Adornation of Lord Shiva temples with various plants in Udaipur city

11 12

13 14

Fig. 11-14. Plant materials kept for selling outside some Lord Shiva temples of Udaipur city

15 16

Fig. 15-16. Decoration of Jagdish temple premises with plants *Heliconia, Dendrobium, Asparagus* spp., etc.

Fig. 17. *Sagas ji baavji* temple; **Fig. 18.** Decorated *Garuda* idol in Jagdish temple; **Fig. 19.** *Hanuman* temple, Sardarpura; **Fig. 20.** *Bohra Ganesh* temple; **Fig. 21-22.** Idols of *Tiirthankars* at Jain temple

4. Conclusion

In a nutshell, it could be said that urban ethnobotany is a new area of research in India and a variety of relationships could be observed and studied through social, cultural, demographical and anthropological perspectives. The present paper is the first attempt to highlight the importance of urban ethnobotanical studies in the country and emphasizes the role of traditions in maintaining cultural, man-plant relationships and minimizing the impact of western culture in both rural and urban populations. A detailed and year-round survey can lead towards some new facts and present a complete picture of such cultural-material relationships existing in temples of Udaipur city. Due to urbanization, developmental activities, etc., loss of natural vegetation at a faster rate is noted almost everywhere. Therefore, it is high time to document the botanical knowledge surviving among people in both rural and urban areas before it is lost forever.

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Table 1. List of temples visited and sellers interviewed in the study

Sl.No.	Name of temple	Locality in Udaipur	Name of interviewed seller
1.	*Mojnath Mahadev**	Durga nursery road	Mohni Devi
2.	*Shiva*, *Kali* and *Hanuman* temple	Rana Pratap Nagar Railway Station	Lalu Ram
3.	*Mahakaaleshwar* temple*	Ambamata	Jhamku Bai, Parvati, Magni Bai
4.	*Neelkanth Mahadev*	Lake Fatehsagar road	Somesh
5.	*Gulabeshwar Bheru ji*	Hathipole inside	Lakhmi, Kamla Bai
6.	*Mahalaxmi* Temple	Rao ji ka Hata	Gyarasi Bai
7.	*Jageshwar Mahadev*	Rao ji ka Hata	Kanni Bai
8.	*Hazareshwar Mahadev**	Chetak Circle	Lacchu Devi
9.	Hanuman temple	Surajpole	Rukmani, Bhuri Bai, Heera Bai, Baadami
10.	Hanuman temple	Sardarpura	Sharda, Sosar Bai
11.	*Dharmeshwar Mahadev*	Ashok Nagar main road	Geeta Bai, Kanchan Devi
12.	*Jagdish* temple	City Palace road	Tulsi Devi, Rekha, Shanta Devi
13.	*Annpurna* temple	Clock Tower area	Ramesh Chand
14.	*Bohra Ganesh* temple	Bohra Ganesh road	Jamuna Devi, Durga Bai
15.	*Sagas ji baavji* temple	Sarvaritu Vilas	Lakshmi, Dhapu Bai
16.	Jain temple	Clock Tower road	-
17.	Jain temple	Sector 14, Govardhan vilas	-
18.	*Shri Padmnabh Swami* Jain temple	Swaroop sagar road, near Shiksha bhawan chouraha	-
19.	Jain temple	Mandi ki naal road, Teliwara, Nadakheda	-

*Garden present in temple premises

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Table 2. List of plant species and their uses as observed in some temples of Udaipur city, Rajasthan

Sl. No.	Botanical name	Family	Local name	English name	Plant part	Use*	Name of Temple
1.	*Achyranthes aspera* L.	Amaranthaceae	*Aandhiijharo*	Prickly Chaff flower	Flowering twig	O	*Mahakaaleshwar* temple
2.	*Aegle marmelos* (L.) Correa	Rutaceae	*Billa, Bel*	Stone Apple	Fruit, Leaves	O,D	*Mojnath Mahadev*, *Mahakaaleshwar* temple, *Neelkanth Mahadev, Jageshwar Mahadev, Dharmeshwar Mahadev, Hazareshwar Mahadev, Shiva* temple, Rana Pratap Nagar railway station
3.	*Allamanda blanchetii* A.DC.	Apocynaceae	-	Purple Allamanda	Flower	D	*Hazareshwar Mahadev*
4.	*Asparagus* sp.	Asparagaceae	-	-	Twig	D	*Jagdish* temple
5.	*Calotropis gigantea* (L.) Dryand.	Asclepiadaceae	*Safed aankda*	Gigantic Swallow Wort	Flower, Fruit	O,D	*Mojnath Mahadev*, *Mahakaaleshwar* temple, *Neelkanth Mahadev, Jageshwar Mahadev, Dharmeshwar Mahadev, Hazareshwar Mahadev, Shiva* temple, Rana Pratap Nagar railway station
6.	*Calotropis procera* (Aiton.) Dryand.	Asclepiadaceae	*Aankda*	Rubber Bush	Flower, Fruit	O,D	*Mojnath Mahadev*, *Mahakaaleshwar* temple, *Neelkanth Mahadev, Jageshwar Mahadev, Dharmeshwar Mahadev, Hazareshwar Mahadev, Shiva* temple, Rana Pratap Nagar railway station
7.	*Capsicum annuum* L.	Solanaceae	*Mirchi*	Chilly	Fruit	For making a trick against evil eyes	Hanuman temple, Surajpole and Sardarpura, *Jagdish* temple, *Dharmeshwar Mahadev*

8.	*Cascabela thevetia* (L.) Lippold.	Apocynaceae	*Peeli kaner*	Yellow Oleander	Flower	O,D	*Mojnath Mahadev, Hazareshwar Mahadev*, *Shiva* temple, Rana Pratap Nagar
9.	*Catharanthus roseus* (L.) G. Don.	Apocynaceae	*Sadabahar*	Periwinkle	Flower	O	*Hazareshwar Mahadev, Mojnath Mahadev*
10.	*Chrysanthemum* spp.	Asteraceae	-	Chrysanthemum	Flower	O,D	Hanuman temple, Surajpole and Sardarpura, *Neelkanth Mahadev, Dharmeshwar Mahadev*, *Kali* and *Hanuman* temple, Rana Pratap Nagar
11.	*Citrus limon* (L.) Osbeck	Rutaceae	*Neembu*	Lemon	Fruit	For making a trick against evil eyes	Hanuman temple, Surajpole and Sardarpura, *Jagdish* temple, *Dharmeshwar Mahadev*
12.	*Cocos nucifera* L.	Arecaceae	*Naariyal*	Coconut	Fruit	O	All temples except Jain temples
13.	*Crocus sativus* L.	Iridaceae	*Kesar*	Saffron	Dried stigma	O	All four Jain temples, *Mahakaleshewar* temple
14.	*Cynodon dactylon* (L.) Pers.	Poaceae	*Doob ghas*	Bermuda Grass	Whole plant	O,D	*Bohra Ganesh* temple, Hanuman temple, Surajpole
15.	*Datura innoxia* Mill.	Solanaceae	*Dhatura*	Thorn Apple	Flower, Fruit	O,D	*Mahakaaleshwar* temple, *Neelkanth Mahadev, Dharmeshwar Mahadev, Hazareshwar Mahadev*
16.	*Datura metel* L.	Solanaceae	*Kala Dhatura*	-	Flower, Fruit	O,D	*Mahakaaleshwar* temple
17.	*Dendrobium* sp.	Orchidaceae	-	-	Flowering twig	D	*Jagdish* temple
18.	*Gaillardia* sp.	Asteraceae	-	-	Flower	O,D	All temples except Jain temples
19.	*Heliconia* sp.	Heliconiaceae	-	-	Flower	D	*Jagdish* temple
20.	*Hibiscus rosa-sinensis* L.	Malvaceae	*Gudhal*	China Rose	Flower	O	*Mojnath Mahadev*, Jain temple at Clock tower road

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21.	*Jasminum arborescens* Roxb.	Oleaceae	*Chameli*	Tree Jasmine	Flower	O,D	*Hanuman* temple, Surajpole, *Sagas ji baavji* temple
22.	*Jasminum sambac* (L.) Aiton	Oleaceae	*Mogra*	Arabian Jasmine	Flower	O,D	*Hazareshwar Mahadev, Neelkanth Mahadev, Sagas ji baavji* temple, Jain temple, Clock tower, *Shri Padmnabh Swami* Jain temple
23.	*Mimusops elengi* L.	Sapotaceae	*Maul shree*	Spanish Cherry	Leaves	O	*Hanuman* temple, Sardarpura and Surajpole, *Bohra Ganesh* temple
24.	*Murraya paniculata* (L.) Jack	Rutaceae	-	Orange Jasmine	Leaves	D	*Jagdish* temple
25.	*Musa paradisiaca* L.	Musaceae	*Kela*	Banana	Leaves, Fruit	O,D	*Bohra Ganesh* temple, *Jagdish* temple, *Mahalaxmi* temple, *Mahakaaleshwar* temple
26.	*Nelumbo nucifera* Gaertn.	Nelumbonaceae	*Kamal*	Lotus	Flower	O,D	*Jagdish* temple, *Mahalaxmi* temple, *Jageshwar Mahadev, Mahakaaleshwar* temple, Hanuman temple, Surajpole, *Bohra Ganesh* temple
27.	*Nerium oleander* L.	Apocynaceae	*Gulabi Kaner*	Oleander	Flower	O	*Mahakaaleshwar* temple, Hanuman temple, Surajpole
28.	*Ocimum tenuiflorum* L.	Lamiaceae	*Tulsi*	Holy Basil	Flowering twig	O	*Jagdish* temple
29.	*Oryza sativa* L.	Poaceae	*Chaawal*	Rice	Seeds	O	All four Jain temples, *Hazareshwar Mahadev*
30.	*Pandanus* sp.	Pandanaceae	*Kewra*	Screw Pine	Inflorescence	O	*Sagas ji baavji* temple, *Bohra Ganesh* temple
31.	*Plumeria alba* L.	Apocynaceae	*Champa*	White Frangipani	Flower	O	*Gulabeshwar Bheru ji*, *Hazareshwar Mahadev*
32.	*Polianthes tuberosa* L.	Asparagaceae	-	Tuberose	Flower	D	*Neelkanth Mahadev*, *Jagdish* temple

33.	*Polyalthia longifolia* (Sonn.) Thwaites	Annonaceae	*Aasaapaal*	False Ashok	Leaves	O,D	Both *Hanuman* temples, *Bohra Ganesh* temple, *Mahalaxmi* temple, *Annpurna* temple, *Neelkanth Mahadev*, *Gulabeshwar Bheru ji*
34.	*Prunus dulcis* (Mill.) D.A. Webb.	Rosaceae	*Badam*	Almond	Fruit	O	Observed in all four Jain temples
35.	*Ricinus communis* L.	Euphorbiaceae	*Arandi*	Castor	Leaves	For wrapping other offering materials	*Hanuman* temple, Surajpole, *Jagdish* temple
36.	*Rosa* spp.	Rosaceae	*Gulab*	Rose	Flower	O,D	*Gulabeshwar Bheru ji, Jagdish* temple, *Mahakaaleshwar* temple, *Jageshwar Mahadev, Bohra Ganesh* temple, *Dharmeshwar Mahadev*. All Jain temples
37.	*Santalum album* L.	Santalaceae	*Chandan*	Sandalwood	Heartwood	O	All four Jain temples, *Bohra Ganesh* temple
38.	*Syzygium aromaticum* (L.) Merr. & L.M. Perry	Myrtaceae	*Laung*	Clove	Dried flower buds	O	All four Jain temples
39.	*Tabernaemontana divaricata* (L.) R.Br. ex Roem. & Schult.	Apocynaceae	*Chandani*	East Indian Rosebay	Flower	O,D	Hanuman temple, Surajpole, *Shiva* temple, Rana Pratap Nagar
40.	*Tagetes erecta* L.	Asteraceae	*Genda*	Marigold	Flower	O,D	All studied temples except four Jain temples
41.	*Tithonia rotundifolia* (Mill.) S.F. Blake	Asteraceae	-	Red Sunflower	Flower	O,D	*Hazareshwar Mahadev*
42.	*Triticum aestivum* L.	Poaceae	*Genhu*	Wheat	Seed	O	*Jagdish* temple
43.	*Typha* spp.	Typhaceae	*Aedaa*	-	Leaf	O	Hanuman temple, Surajpole

*O: Offering; D: Decoration