



## THE GENESIS OF CAJANUS CAJAN VERNACULARS

## Agricultural Science

K.B. Saxena\*

\*Corresponding Author

S. J. B. A.  
Jayasekera

## ABSTRACT

Since the birth of domesticated pigeonpea about 4000 years ago, it was recognized as one of the important foods, first by local tribes where it originated, and later by various farming communities; and this helped in spreading the crop to different parts of India. Later, the international commodity and slave traders also took pigeonpea to various tropical and subtropical parts of the world. Thus, centuries ago the pigeonpea crop got rooted in different Asian, African, and American countries. As this plant species was new to these areas with no established recognition and nomenclature, the growers and traders named it in their local dialect (vernacular) on the basis of its plant type, seed appearance, or uses. This communication compiles the scattered information on its 89 historic and presently popular names of pigeonpea used in 66 different Asian, American, African, Australia Oceanic, and European countries. **Summary** Pigeonpea originated in India about 4000 years ago and over the period it was domesticated in India and various Asian, African, American, and European countries. During its initial domestication in India, pigeonpea was called with different names which were primarily derived from Sanskrit and Darwinian languages. The first such nomenclature is dated back to 700 BC. Since then, over hundred names have been documented in various Indian historical manuscripts and 20th century literature from different countries. It is believed that the later emerging names were given by the growers and traders in their local dialect (vernacular).

## KEYWORDS

Cajanus cajan, Global domestication, Pigeonpea, Vernaculars

## INTRODUCTION

About 400 decades ago, pigeonpea [*Cajanus cajan* (L.) Millspaugh] originated spontaneously from a wild species [*Cajanus cajanifolius* (Haines) Maesen, Fig 1] in the forests of eastern-side hills of central India. Over the time, pigeonpea was sporadically inhabited by various tribal communities for cultivation mainly under “Jhoom” (shift) system of agriculture. It is also documented that centuries ago the seeds of pigeonpea were taken from India to other parts of the world through some commodity and slave traders (van der Maesen, 1980). At present the crop is widely grown across India and in some parts of Asian, African, and South American countries. Since this plant species was new to these areas with no established identity and nomenclature, the growers and traders identified pigeonpea in their own local dialect on the basis of its plant type, seed traits, or uses. This research communication compiles the scattered information on its historic and popular present names used in different parts of the world.



Fig 1. The progenitor wild species (L) and a modern cultivar (R)

The vernaculars allocated to pigeonpea from time to time were preserved by historians and some old-time researchers. Raju (1981) opined that these names were associated with different ethnic groups; and presumably they emerged following their consumption patterns and economic scenario. Some growers/traders also used plant morphology or seed traits to designate pigeonpea with their logical names. They also noted that in some countries multiple names were assigned to pigeonpea by different tribes.

While reviewing this subject, the authors realized that such an information is vast and scattered over a wide range of the old-era (B.C.) manuscripts, religious writings, history books, and research papers. Hence, for constructing overall picture, an attempt was made to collate this information and present the same in a coherent manner.

## Scientific Nomenclature

The initial botanical classifications of plant kingdom were developed mainly in Latin language to enable the western scientists to

communicate with one another. Subsequently, both Greek and Latin polynomials appeared in the botanical literature. The first scientific name for pigeonpea, *Arbor trifolia indica*, was given by Bauhin and Cherla during 1650-1651. A century later, Linnaeus (1753) gave the first binomial nomenclature to pigeonpea as *Cytisus cajan* (L.).

The genus “*Cajanus*” was founded by de Candolle in 1813 while establishing the taxonomy of two species namely, *flavus* and *bicolor*. According to Watt (1889) the species name “*cajan*” was derived from “*Katjang*”, “*Cachang*”, or “*Catjang*”, the vernacular names of pigeonpea in Malay language. Further, Vavilov (1951) opined that the species name “*cajan*” is purportedly linked to the early Asiatic name “*kayan*”. Royes (1976) mentioned that the Malay word “*Katjang*” was the corrupted form of a 'Telugu' language word “*kandi*”, which has its origin in the Sanskrit word “*kand*” (meaning a stem), supposedly a reference to the long stem of the pigeonpea plant.

In the past literature various binomials such as *Cytisus pseudo-cajan* Jacq., *Cajanus pseudo-cajan* Schi. & Gull., *C. inodorum* Medic., *C. indicus*, *C. flavus*, *C. bicolor* D.C., *C. indicus* Spreng., *C. luteus* Bello, *C. cajan* Huth., and *C. cajan* Druce are found. The authors conclude that all these binomials of pigeonpea should now be considered synonyms of the presently accepted binomial “*Cajanus cajan* (Linnaeus) Millspaugh”. In all the present literature, however, its short version “*Cajanus cajan* (L.) Millsp.” is used to refer to pigeonpea.

ICRISAT's Germplasm Botanist Dr L.J.G. van der Maesen (1986) revised the two related taxa *Cajanus* and *Atylosia* and merged the wild genus *Atylosia* into the cultivated *Cajanus*. Accordingly, the pigeonpea binomial has now been revised to “*Cajanus cajan* (Linnaeus) Millspaugh van der Maesen”.

## Indian Vernaculars

Interestingly, there exists no reference to pigeonpea in Vedic literature belonging to the period 1200 - 600 B.C., and the same observation was made about the two epics “*Ramayana*” and “*Mahabharata*” (De, 1974).

In India, the oldest (c. 700 B.C.) classification of pigeonpea was based on its dietary value; and it was established by Charaka, an ancient surgeon. He listed pigeonpea under “*Sami Dhanya Varga*”, a category of grain crops of second rank (Majumdar, 1927). Susrata (c. 400 B.C.), the other ancient author, later classified beans in eighth category under “*Simva*” (pulses). Subsequently, Bhavaprakasha merged both the old systems and established “*Simbi*” in a subgroup “*Dhanya Varga*”. In these documents the Sanskrit word “*Adhaki*” was used to refer pigeonpea (Raju, 1981; Krishnamurthy, 1991; Vidyalkar, 1994). According to Jha (1999), the illustrious historian Amarsimha, in his

Sanskrit lexicon “*Amarkosa*” (c. 200 BC.), referred pigeonpea as “*adhaki*”, “*kakshi*”, and “*tuvarica*”. Also, in the Buddhist and Jain literature (200 B.C. to 300 A.D.) pigeonpea is referred to as *Adhaki*. In the Marathi book “*Gathasaptasati*” (3<sup>rd</sup> and 4<sup>th</sup> century A.D.), the word “*Tuvari*” was used. Pigeonpea was also referred to as “*Adhaki*” in the well-known Sanskrit medical textbook “*Susrutasamhita*” that was written in 6<sup>th</sup> century A.D. Bhavamisra, an eminent scholar of 16<sup>th</sup> century, added another word “*shampushika*” for pigeonpea; and it was based on the fact that the pigeonpea flowers resembled with those of sun hemp (Chunekar and Pandey, 1998). In “*Arthshastra*” a word “*Udaara*” is mentioned, and it means a split grain with long stalk (Kangle, 1982). In this context, Nene (2006) guessed that Kautilya used the word “*Udaara*” to describe pigeonpea.

The popular Indian names of pigeonpea were derived from Sanskrit and Dravidian languages. The Sanskrit words “*Adhuki*” or “*Adhuka*” became “*Arhar*”; while the Dravidian word “*Tuvari*” or “*Tuvarai*” was later called as “*Tuar*” or “*Tur*”. The word “*Adhaki*” perhaps originated from “*Ardha*”, meaning one-half or split into two parts; and it appears that its genesis is related to the consumption pattern of pigeonpea grains. One of the two common names used for pigeonpea in India is “*Arhar*” and it assumed that it is a corrupt form of “*Adhaki*”. The other common name for pigeonpea is “*Tuvara*”, which is linked to the Sanskrit word, *tuvara* or *tubara* means “astringent”.

The green pigeonpea seeds, which are being consumed as vegetable have astringent taste. This might have led to the word *tuvara* and its variants including *tuvarika*, *turri*, and *tur*. It is interesting to note that the word *arhar* is common in north India, while the names *tuvara* and its variants are popular in south India.

Raju (1981) cited the examples where the ancient cultivation and usage also induced the names of township; and these include like “*Kandi*” in Medak district of Telangana, “*Kanduru*” in Chittoor and “*Kandu Kuru*” in the Ongole district of Andhra Pradesh. Besides these, three local Telegu cultivar names are also popular; and the names are linked to the seed appearance and morphology. These are “*Billa Kandi*” - a flat pea from Deccan, “*Mabhu Kandi*” - a gray pea from coromandel coastal area, and “*Erra Konda Kandi*” - a red hill pea from Visakhapatnam.

It was surprising to note that there is no mention of pigeonpea in the most reputed manuscript of 16<sup>th</sup> century “*Ain-i-Akbari*” (Blochmann, 1873). Nene (2006) believed that since Akbar was essentially a Punjabi and pigeonpea, even today, does not figure in common man's cuisine, either in Indian or Pakistani Punjab, pigeonpea did not figure in this classy document.

### Pigeonpea Vocabulary used in Other Countries

In Europe and middle east, the ancient and medieval botanists described the crop plants of those days in Greek, Latin and Arabic languages. The names of pigeonpea in the American hemisphere are derived from African and European vernaculars. The Portuguese ‘*guandu*’, Spanish ‘*gandul*’ and Egyptian ‘*gandoles*’ may have been derived from the Indian Telugu word ‘*kandulu*’ (van der Maesen 1986) or have African roots.

The name such as “*Gabonese Fioffe*”, ‘*oando*’, “*Guando*” or “*Guandul*” is a corruption of “*cajan*”, which was adopted from the Malay name “*Cachang*”. However, the names such as “*Angola pea*”, “*Congo pea*”, “*Kachangbali*”, “*Ads Sudani*”, “*Cajan des Indes*”, “*Puerto Rican pea*”, “*Lentille du Soudan*” and “*Indisxcher Bohnenstrauchall*” originated from different European communities.

The present-day internationally popular English name of this crop ‘pigeonpea’ was coined by Plukenet (1692) in Barbados, where the crop was grown in barren lands primarily for feeding pigeons. This name was later translated into Dutch, French, German, Spanish, and Russian languages.

The pigeonpea names popular in different countries are “*Katjang*” (Malaysia), “*Cguando*” (Brazil), “*Gandolu*” (Puerto Rico), “*Guango*” and “*Congo pea*” (Jamaica), “*Quinchoncho*” (Venezuela), “*Pois de Congo*” (Africa), “*Kandulu*” (southern India), “*Thora parippu*” (Sri Lanka), and “*Mu Dau*” (China).

The names used in Asian (Table 1), African (Table 2), and American, European, and Australia Oceania (Tables 3) countries.

Table 1. Pigeonpea vernaculars used in Asia

Sl. No.	Country	Language	Vernaculars
1.	Bangladesh	Bengali	Arhar, Tur, Tuver
2.	Burma	Burmese	Pai-si-gong, Pay-in-Chung, Pesigon.
3	China	Chinese	Muk Tau, Tan Shue, Shan Tou Ken
4	India	Abor	Da-yil, Rahar
5		Assamese	Rahar
6		Bengali	Arhar, Dhal Urur
7		Garó	Nandu
8		Gujarati	Arhar, Tur, Dangri, Tuvero
9		Hindi	Arhar, Tur, Rahar
10		Kannada	Adhaki, Karyudu, Thogari, Dalu
11		Kangra	Dhingra, Kundi
12		Konkani	Tori
13		Malayalam	Tuvara, Kakshi, Thuvaran
14		Marathi	Arhar, Tur
15		Mundari	Rari
16		Oriya	Horodo, Kandulo, Supia, Tuvarika
17		Punjabi	Arhar, Tohar, Dinger
18		Shimla	Kehu, Kohlu
19		Tamil	Adagam, Paruppu, Malait Tuvarai
20		Telugu	Kandi, Kandulu, Pedda kandi
21		Santali	Rahar
22		English	Pigeonpea
23	Indonesia	Bahasa,	Kachang Bali, Kekatji, Undis
24		Batak	Ritik Lias
25		Sumatra	Kasang Kayu
26		Javanese	Kachang Bali
27		Timorese	Tunis, Turis
28	Japan	Japanese	Ki-Mame
29	Lao	Lao	Me Ne Nok
30	Malaysia	Malay	Kachang, Kajang, Kayu
31	Nepal	Nepali	Adhad, Rahar
32	Pakistan	Urdu	Arhar, Dal, Thur
33	Philippines	Kardis	Igorot, Kaldis
34	Sri Lanka	Sinhalese	Parippu, Thora Parippu,
		Tamil	Thavarai, Thur (Tamil)
35	Thailand	Thai	Tovarai, Tua-re, tua-mahe
37	Turkey	Turkish	Guvercin Bezelyesi, Tohum
38	Vietnam	Vietnamese	Cay Daum Chien, Dau Rrien

Table 2. Pigeonpea vernaculars used in Africa

Sl. No.	Country	Language	Vernaculars
1	Angola	Portuguese	Ervilha d Congo, Quinsonge
2	Benin	Fon, French	Adjagui, Adoua, Pois d Angole
3	Egypt	Arabic	Ads Sudani, Shakhil, Shaz
4	Ethiopia	Somali	Sambuca Ghed
5	Gabon	Berklee	Besange d Djele
6	Ghana	Dagomba	Adua
7	Kenya	Kikuyu, Swahili	Njogu, Mbaazi
8	Madagascar	French	Pois cajan, Ambrevede
9	Malawi	Nyanja, Tonga	Nandolo, Epweri, Mtambe Za Miti
10	Mauritius	French	Ambrevade, Ambrevatte
11	Mozambique	Benin	Olele, Dan Mata
12	San tome	Portuguese	Feijoa Congo
13	Senegambia	French	Cajan Des Indes, Pois d Angole
14	Sierra Leone	Konsoba	Limba, Soimese
15	South Africa	Bantu	Lidodze
16	Sudan	Arabic	Adassi, Ads Sudani

17	Tanzania	Swahili	Mbaazi, Mbani, Mbarasi, Mbazi
18	Togo	Tshaudjo	Adua
19	Uganda	Gimbi, Kibali,	Ndeda, Kindolia, Wandu
20	Zambia	Local	Imposo

Table 3. Pigeonpea vernaculars used in Americas, Australia Oceania and Europe

Sl. No.	Country	Language	Vernaculars
Americas			
1	Brazil	Portuguese	Faijao Andu, Faijao Guandu
2	C. Amarica	Spanish	Angola Pea, Guandu
3		French	Pois Congo, Pois de Congo
4	Colombia	Spanish	Chicharo de Paloma, Frijol Paloma,
5	Costa Rica	Spanish	Petipoa, Tmbolillo
6	Cuba	Spanish	Gandul, Gandur, Gadul
7	Dom. Rep.	Spanish	Guandul, Guandula
8	Ecuador	Spanish	Frajol da Palo
9	El Salvador	Spanish	Alberga, Alverja
10	Guatemala	Spanish	Cachito Frijol
11	Haiti	French	Pois Congo
12	Honduras	Spanish	Chicharo
13	Jamaica	English	Christmas Pea, Congo Pea, Gungo
14	Martinique	French	Pois d Angole
15	Mexico	Spanish	Chicharo
16	Netherland	Spanish	Wandoe
17	Nicaragua	Spanish	Garbanzo Falso
18	Panama	Spanish	Guandu, Frizo
19	Peru	Spanish	Psu-poroto
20	Puerto Rico	Spanish	Gandul
21	Surinam	Dutch/Hindi	Wandoe, Arhar, Dhal
22	Venezuela	Spanish	Quinchoncho
Australia Oceania			
22	Australia	English	Pigeonpea
23	Guam	Spanish	Lenteja Francea
24	Hawaii	English	Pigeonpea, Puerto Rican Pea
Europe			
25	France	French	Ambarvasti, Cystiese, Pois d Pigeon
26	Germany	German	Angolische Erbse, Catjang Fasel,
27	Great Britain	English	Pigeonpea
28	Netherlands	Dutch	Balische Boon
29	Portugal	Portuguese	Tantaraga
30	Spain	Spanish	Guandul, Guisante, Enano
31	USSR	Russian	Golubani Gorokh, pigeonpea

## REFERENCES

- Blochmann, H. (1873). *The Ain-i-Akbari by Abul Fazl Allami*. Book 1. The Asiatic Society, Calcutta 700016. West Bengal. India. 1873. Pp 741 (Reprint).
- Chunekar, M.C. & Pandey, G.S. (1998). *Bhavaprakash Nighntu (Indian Materia Medica) of Sri Bhavamisra (c. 1500-1600 A.D.)*. Chankhamba Bharti Academy. Varanasi, U.P., India.
- de Candolle, A.P. (1813). Catalogus Plantarum Horticulture. Pages 85-86. *In: Botanici Monspelienis*. Paris, Strassbourg and Montpellier.
- De, D.N.(1974). Pigeonpea. Pages 79-87. *In: Evolutionary Studies in World Crops: Diversity and Change in the Indian Subcontinent*. (ed.) J. Hutchinson. Cambridge University Press, London.
- Jha, V. (1999). *Amarsimha's Amarkosa*. 3<sup>rd</sup> Edition Volume II. Motilal Bansidhar. New Delhi, India. Pp 582.
- Kangle, R.P. (1982). *Kautiliyam Arthashastram* (in Marathi). Maharashtra Rajya Sahitya Sanskriti Mandal, Secretariate, Mumbai, 4000032, Maharashtra, India. Pp 683.
- Krishnamurthy, K.S.(1991). *The Wealth of Susruta*. International Institute of Ayurveda, Coimbatore. Tamil Nadu. India. Pp 582.
- Linnaeus, C. (1753). *Species Plantarum Holmiae* 2: 739.
- Majumdar, G.F., (1927). Vanaspati: Plants and Plant-life as in Indian Treatises and Traditions. *Griffith Memorial Prize Essay for 1925 by Girija Prasanna Majumdar*. University of Calcutta. Pp 254. Available at Amazon.in.
- Nene, Y.L. (2006). Indian pulses through the Millennia. *Asian Agri-History* 10: 179 - 202.
- Plukenet, L. (1692). Table 213, Fig 3. *Phytographia*. 3. London.
- Raju, D.C.S. (1981). Ethenobotanical aspects of pigeonpea. Pages 15-22. *In: Proceedings International Workshop on Pigeonpeas*. Volume 2: 15-19 December 1980. International Crops Research Institute for the Semi-Arid Tropics, (ICRISAT). Patancheru, India.
- Royes, V.W. (1976). Pigeonpea. Pages 154-156. *In: Evolution of Crop Plants*. (ed.) WW Simmonds. Longmans. London, NY.

- van der Maesen L.J.G. 1980. India is the native home of pigeonpea. Pages 257–262. *In: Libergratulatio in honorem H.C.D. de Wit Landbouwhoge School*. Miscellaneous Paper No. 19. (eds) Arends J.C. Boelma G, de Groot C.T, Leeuwenberg, A.J.M, Veenman H and Zonen B.V. Wageningen, Netherlands.
- van der Maesen L.J.G. 1986. *Cajanus DC. and Atylosia W. & A. (Leguminosae)*. Agricultural University Wageningen Papers 85-4 (1985). Agricultural University, Wageningen, the Netherlands.
- Vidyalankar, J. (1994). *Charaka Samhita. Part I*. Motilal Banarsidas. New Delhi 110007. India. (Edition 1875): 3<sup>rd</sup> reprint Pp. 522.
- Vavilov, N.I. (1951). The origin, variation, immunity and breeding of cultivated plants. *Chronica Botanica* 13: 1-366.
- Watt, G (1889). A Directory of Economic Products of India 2. Calcutta, India.