

Commentary

## What is there in the name: its pigeonpea all the way

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Pigeonpea is a versatile pulse with adaptation to a range of environments and production systems. This high-protein food evolved from *Cajanus cajanifolius*, a wild relative of pigeonpea. Its pod-shattering and hard seed coat allowed its survival over the centuries. Interestingly, this wild species is still found growing in the deep forests of the eastern-hills of central India. The local tribes call it as “*Ban Arhar*” and use its immature pods and seeds as vegetables.

It is believed that about 4000 years ago two natural events - mutation and selection were responsible for the evolution of the domesticated type from this wild species. Over time, landraces became an integral constituent of “Jhoom (shifting)” agriculture; first by the locals and later by the neighbours. Gradually, some improved and adapted landraces emerged, and they spread to other parts of India. The well-known historic slave trade was responsible for spreading pigeonpea seeds to different tropical and subtropical areas of the world. This way centuries ago, the pigeonpea got rooted in parts of Asia, Africa, Australia Oceania, Americas, and Europe.

Since this crop was new to most countries and localities and did not have any established name, the locals tagged it with their own vernaculars. It is believed that the names of different pigeonpea biotypes presumably emerged following their appearance, seed traits, and consumption patterns of diverse ethnic groups. The range of vernaculars assigned to pigeonpea from time to time were preserved by Indian historians and old-time researchers. In fact, this treasure is vast and scattered over a wide range of old-era manuscripts, religious writings, history books and some modern-age research papers. In this commentary, I have attempted to compose a broader picture by collating this thinly-spread information from 66 countries worldwide and present the same in a coherent manner.

During the era before the Christ, the Indian intellectuals classified various food crops into different groups, purely based on their dietary

values. Accordingly, Charaka (c. 700 B.C.), a surgeon listed pigeonpea under “*Sami Dhanya Varga*”, a category of grain crops of second rank. Later Susruta, the famous author of 400 B.C., classified the pulses in the eighth category under the group “*Simva*”. Subsequently, Bhavaprakasha merged the two classifications of food crops and within the “*Dhanya Varga*” group he established a new subgroup and identified it as “*Simbi*”.

During 200 B.C., pigeonpea was assigned its first set of proper names (“*Adhaki*” and “*Kakshi*”) by Amarsimha and he preserved these in a Sanskrit lexicon “*Amarkosa*”. In Buddhist and Jain literature (200 B.C. to 300 A.D.) also, pigeonpea was referred to as “*Adhaki*”. The name “*Tuvari*” was introduced in the Marathi book “*Gathasaptasati*” that was written between the 3<sup>rd</sup> and 4<sup>th</sup> century A.D.

In the well-known Sanskrit medical textbook “*Susrutasamhita*” (6<sup>th</sup> century A.D.), pigeonpea was referred to as “*Adhaki*”. In the 16<sup>th</sup> century, Bhavamisra, an eminent scholar, gave another name “*shampushika*” for pigeonpea; and it was based on the fact that pigeonpea flowers resembled those of sun hemp. Kautilya, in his book “*Arthshastra*” used the name “*Udaara*” for pigeonpea. Literally, this word means a split grain with a long stem.

The popular present-day Indian names of pigeonpea were derived from Sanskrit and Dravidian languages. The Sanskrit name “*Adhuki*” originated from “*Ardha*” - meaning one-half or split into two parts and it was further corrupted to “*Arhar*”. On the other hand, the Dravidian name “*Tuvari*” was later baptized as “*Tuar*” or “*Tur*”. It is interesting to note that “*arhar*” is the present-day popular name of pigeonpea in north India, while “*tuar*” is popular in south India. In the vast central region both names are in use; in the northern region pigeonpea is popular as “*arhar*” while in the southern sphere the name “*Tuar*” is in use.

In other Asian countries, pigeonpea is also known with different names such as “*Tur*” (Bangladesh); “*Pai-si-gong*” and “*Pay-in-Chung*” (Burma); “*Mu Tau*” and “*Tan Shue*” (China);

"Kachang" and "Kekatji" (Indonesia); "Ki-Mame" (Japan), "Me Ne Nok" (Lao); "Kachang" (Malaysia); "Rahar" (Nepal); "Parippu" and "Thora Parippu" (Sri Lanka); "Tua-re" and "Tua-mahe" (Thailand); "Guvercin Bezelyesi" and "Tohum" (Turkey) and "Cay Daum Chien" (Vietnam).

In European and Middle Eastern countries, 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 were derived from African and European vernaculars. The names in Portuguese 'guandu', Spanish 'gandul' and Egyptian 'gandoles' languages may have been derived from the Indian Telugu word 'kandulu' or they may have African roots. The name such as "Gabonese Fioffe", 'Oando', "Guando" or "Guandul" are believed to have originated from "cajan", which was adopted from the Malay name "Cachang". Some other names of pigeonpea such as "Angola pea", "Congo pea", "Kachangbali", "Ads Sudani", "Cajan des Indes", "Puerto Rican pea", "Lentille du Soudan" and "Indisxcher Bohnenstrauchall" were also given by different European communities.

In the South American and Caribbean countries also different names were assigned to pigeonpea. These include "Faijao Andu" and "Faijao Guandu" in Brazil; "Angola Pea", "Guandu", "Pois Congo" and "Pois de Congo" in C. America; "Chicharo de Paloma" and "Frijol Paloma" in Colombia; "Petipoa" and "Tmbolillo" in Costa Rica; "Gandul," "Gandur" and "Gadul" in Cuba; "Guandul" and "Guandula" in Dominican Republic; "Frajol da Palo" in Ecuador; "Alberga" and "Alverja" in El Salvador; "Cachito

"Frijol" in Guatemala; "Pois Congo" in Haiti; "Chicharo" in Honduras; and "Christmas Pea", "Congo Pea" and "Gungo Pois d Angole" in Jamaica.

Historically, the first scientific name given to pigeonpea was *Arbor trifolia indica*. But the first binomial assigned to it was *Cytisus cajan* (Linnaeus). Following this, various binomials such as *Cytisus pseudo-cajan* Jacq., *Cajanus pseudo-cajan* Schi. & Gull., *Cajanus inodorum* Medic., *Cajanus indicus*, *Cajanus flavus*, *Cajanus bicolor* D.C., *Cajanus indicus* Spreng., *Cajanus luteus* Bello, *Cajanus cajan* Huth. and *Cajanus cajan* Druce was also given to pigeonpea by different botanists. It is advised that all the above binomials should now be considered synonyms of the presently accepted pigeonpea binomial "*Cajanus cajan* (Linnaeus) Millspaugh". Interestingly, a couple of decades ago, this pigeonpea binomial was also revised and now the corrected version reads as "*Cajanus cajan* (Linnaeus) Millspaugh van der Maesen".

In India the popular English name of pigeonpea is "red gram". The other internationally popular English name of this crop is 'pigeonpea' and was coined way back in 1692 in Barbados, where it was grown in barren lands primarily for feeding pigeons. At present, the name "red gram" is hardly in use and all the modern literature identifies this crop as "pigeonpea".

Before signing off this commentary, I would like to reiterate that this little effort would help pigeonpea researchers and scholars in getting a feel of the history of naming pigeonpea, the most popular high-protein pulse of sustainable agriculture.