# The Art of Naming Traditional Rice Varieties and Landraces by Ancient Tamils

#### A Sathya

Centre for Advanced Research in Environment (CARE), School of Civil Engineering, SASTRA University, Thanjavur 613402, Tamil Nadu, India (email: sathyaalbert@gmail.com)

# Abstract

South Indian history is interwoven with rice. Rice is the essential component of food, festival, occupation, birth, and death of every single citizen of Tamil Nadu, as elsewhere in India. Especially in Tamil Nadu, the Cauvery river basin had been renowned as 'Rice Granary of South India'. There had been approximately 400 varieties of rice in vogue since Kingdoms' Era. An effort has been made to collect names of traditional rice varieties that are still extant and those that had been then household varieties of ancient Tamils. The names had been collected from sources like inscriptions, textual records, literature, personal communications, poems, semi-structured interviews, and oral sayings. The meticulous transliteration efforts have enabled us to understand and appreciate the criteria of naming the traditional varieties of rice primarily on morphological traits of whole plant or inflorescence or grain. The varieties had been clearly distinguished and given names with color, shape, size, and appearance, either as an individual trait or in combination with other characters. This article corroborates the phenomenon of naming of traditional rice by ancient Tamils with the art of naming elsewhere in India as cited in Avurvedic treatises by Susruta, Taittiriya Samhita of the Black Yajurveda, Paninni's Astadhyayi, and Ramayana. The art of naming is also compared for a range of crops including rice of Lao PDR, enset of Ethiopia, rice of Gambia, etc. Apart from this, the traditional varieties of rice were also given names of persons who had been then heroes, kings, and leaders of their period. About 340 names based on color, appearance or both, size, duration, numbers, special characters, etc. have been listed and tabulated along with transliterated meanings.

The most widely consumed of all human foods, rice (*Oryza sativa*) (Dethloff, 1988), stands prominent in the path of transformation. During the lengthy epoch of history, rice has been intensively grown under favorable conditions for development of local forms, transforming the crop into an enormous complex of forms, showing great variations in morphological and physiological characters. According to Nene (2005), Kashyapiyakrishisukti is the only Sanskrit text which gives a clear idea about the state to which rice cultivation had evolved until more than 1000 years ago (Ayachit, 2002).

The diversity of rice varieties is nowhere as great as in India. Subduing to the conventional agro-techniques, rice forged into innumerable landraces and traditional varieties with least interference from man. They hold appreciable genetic integrity and are morphologically distinct. Native cultivars or landraces are highly heterogeneous within populations in contrast to modern improved varieties, which are genetically homogenous (Hiroko Morishima *et al.*, 1992).

Villages are the backbone of India. According to Watt (1891), every single village in the Indian subcontinent has its own variety of rice. Farmers usually identify them with local names. A landrace has characteristic nature and property. Landraces differ in maturing periods and are thereby identified as early and late maturing. Each of these landraces have preference and selectivity to specific abiotic needs including particular soil type, water quality, climatic factors, etc. Moreover, their practical applications are remarkably different. Characteristically there are traditional varieties exclusively good for puffing, flour, fermented foods, malt to make beer, etc. Every aspect of these traditional varieties or landraces is well adapted to the prevalent soil and climatic conditions of a given location. But the unique character is that they are genetically diverse. Their dynamic gene pool is the foundation for balanced existence and equilibrium with nature.

The polymorphic nature of traditional varieties had been more appealing to man, so the process of christening these varieties was primarily based on the heterogenic expressions and applications. There are ample references and quotes in ancient texts uncovering the myth and art of naming these dynamic rice varieties. This article focuses on the special care taken by ancient Tamils in meticulously naming the then widespread traditional rice varieties based on five criteria. These popular varieties of Tamil Nadu in yesteryears are now forgotten with the advent of modern varieties tagging them vaguely as extinct/extant or unknown varieties. The significance and the role of these varieties in day-to-day life and in auspicious occasions of yonder Tamils could now be well traced in Tamil poems, riddles, texts, and scriptures.

# Collection and compilation

An elaborate and sincere effort was undertaken to know, appreciate, and disseminate the extent of rice diversity and its significance in the physical, mental, and spiritual phenomena of ancient Tamils. The approximate timeline of the antiquity of these varieties under purview in this article could range from 9th to 12th century AD and few of these varieties are still extant in some parts of Tamil Nadu. During this study, information from farmers about the origin of the different varieties, their special traits and significance, including the vernacular names and their meaning was recorded. Although the literal translations may be inadequate in implications, yet the names do provide an insight into the diversity of traditional rice varieties of ancient Tamil Nadu. Hand in hand, the extent of collection of these particulars was also accomplished by combing through ancient Tamil and Indian literature. The names of traditional varieties were written in Tamil and an agreed transliteration into English

was also developed. The meanings of varietal names were mined from all possible sources, including extension officers, Tamil pandits, and researchers who understood both Tamil and English. A variety name was translated literally based on the meaning and appropriate phonetics. In the present study the art of naming of traditional rice varieties by ancient Tamils is vividly discussed based on color, shape, appearance, color and appearance (dual characters), and also in memory of important persons. The art of naming based on other characters such as location, season, duration, smell, taste, and specific physiological characters has to be analyzed exclusively.

# **Rice cognates in Tamil**

The prime fact is the plethora of references to rice in the Dravidian language. In Tamil alone, about thirty-two terms refer to rice, inclusive of cooked rice (Burrow, 1968) (Table 1). The greatest number of cognates in different Dravidian languages is of the Tamil term 'arici' (Tuk-Tuk Kumar, 1988).

Chatterjee (1951) refers to a philological work in which the author had argued that the generic name *Oryza*, the Greek word 'Oruza', and the Tamil word '*arise*' had all originated from the word 'ou-li-zz', meaning rice in the Nengpo dialect of Chinese.

# The art of naming

During the Sangam era (200 BCE–200 CE) of Tamil historical record, there were five geographical divisions of the Tamil country.

As apparent in the Sangam literature, the 'Marutam' expanse was the best suitable area for cultivation, as it characteristically had the most fertile lands. Based on the fertility condition of the soil, land was classified as Menpulam (fertile land), Pinpulam (dryland), Vanpulam (hard land), and Kalarnilam or Uvarnilam (salty land). Millets, sugarcane, paddy, various pulses, pepper, coconuts, beans, cotton, corn, tamarind, plantain, and sandalwood were cultivated commonly by Tamils. Paddy was the primary crop, with a range of different varieties grown in the wetland of Marutam, such as Sennel, Vennel, Aivananel, Pudunel, and Torai. Such naming of traditional varieties was mainly based on their color, size, shape, use, duration, etc.

In Tamil Nadu, since ancient times, rice was cultivated predominantly in the areas which fall under the present-day districts of Thanjavur, Tiruchirapalli, North Arcot, South Arcot, and Chengalpet. According to Ramaswami (1972), about 100 varieties were available in Ramanathapuram district of Tamil Nadu alone.

The varieties display wide diversity in their inherent morphological and physiological characters. There had been rice grains with grains varying in color from yellow to purple and in size from 5 mm to 15 mm in length and 1.9 mm to 3.55 mm in breadth. It is still

This article focuses on the special care taken by ancient Tamils in meticulously naming the then widespread traditional rice varieties based on five criteria.

Table 1. References to rice in Tamil.		
Term of rice	Meaning	
Avi	A single grain of boiled rice	
Kuruvai	A dark species of paddy maturing in two months; an inferior reddish paddy maturing in three months	
Campa	A superior kind of paddy	
Navarai	A kind of paddy	
Nakarai	A kind of rice	
Nel	Rice; paddy; grain of paddy	
Vari	Paddy	
Viyam	Seed; rice	
Ari	Rice; paddy; ear of paddy	
Arici	Rice without husk; any husked grain	
Valci	Paddy; husked rice; boiled rice	
Aval	Rice obtained from fried paddy by flattening it	
Unti	Boiled rice	
Una	Boiled rice	
Orai	Boiled rice; rice that is mixed with other edibles like sesame, etc.	
Korru	Food; means of subsistence	
Coru	Boiled rice	
Purukku	To boil paddy before husking	
Purukkal (puzhungal)	Cooked rice	
Ponkal	Boiled rice seasoned with salt, pepper, cumin seeds, and ghee	
Mitavai	Boiled rice	
Vitavai	Boiled rice	
Metakku	Boiled rice	
Vakkal	Boiled rice from which <i>conjee</i> has been poured	
Putita	First sheaves of a rice crop offered to Goddess Lakshmi	
Marakku	To beat (as paddy)	
Marukkal	Husked rice with bran removed	
Avi	Boiled rice	
Avir	Boiled rice	
Avaiyal	Well husked rice	
Ecar	Water in a pot set over the fire for boiling rice	
Kali	Rice gruel; rice conjee	

# Table 1 Deferences to rice in Tamil

possible that there could be duplication - the same rice variety growing under dissimilar names and occasionally different rice varieties growing under similar name in diverse areas. The remarkable number of varieties is related to the fact that a single kind thrives only under very fine limits of conditions to which it is perfectly adapted. It is this suitability of varieties to particular places (and uses) which explains their perpetuation. It also has to be noted that a number of varieties are grown in different states with common names and on the other hand, varieties though having the same name showed difference in quality. In Tamil Nadu, 94 varieties were claimed to be grown in other states with common names (Tuk-Tuk Kumar, 1988).

Nearly 400 traditional varieties of paddy had been in vogue during olden days in Tamil Nadu. These varieties were named by our ancestors, based on customs, plant height, mode of tillering, season, period of flowering, grain shape, color, and size, duration, medicinal use, grain quality, smell, morphological appearance, physiology, taste, etc. Pallu Pattu, an ancient Tamil literary work on peasants quotes about 150 varieties of paddy. Today many of these varieties can be seen only in the verses and hymns of literature (Nammazhvar, 2004).

In Tamil Nadu, since ancient times, rice was cultivated predominantly in the areas which fall under the present-day districts of Thanjavur, Tiruchirapalli, North Arcot, South Arcot, and Chengalpet. Some of the traditional varieties like Basmati, Rasgadam, Sugadas, Rasanam, and Seeraga samba are cultivated for their aroma. Elastic nature of the variety *Puttu nel* is due to gluten (a modified form of starch), which has been the reason for its name '*Puttu*' (pounded rice). The varietal names collected, compiled, and corroborated with underlying reasons are discussed in detail.

In different regions of the world farmers name their varieties of crop based on plant traits or in honor of the person who introduced the variety. This, for example, is the case for rice in Sierra Leone (Richards, 1995), for sweet potato (*Ipomoea batatas*) in Irian Jaya (Schneider *et al.*, 1993), and for beans (*Phaseolus* spp.) in Malawi (Martin and Adams, 1987).

Predominantly inflorescence-related traits are employed in naming sorghum (*Sorghum bicolor*) varieties in Ethiopia (Teshome *et al.*, 1997) and variety names that refer to place of origin are also found (McGuire, 2005). Generally, agronomic and morphological traits are used to name varieties of rice in Malaysia, Thailand, Nepal, and Lao PDR (Lambert, 1985; Dennis, 1988; Appa Rao *et al.*, 2002; Bajracharya *et al.*, 2006).

In India, the ancient texts such as the Ayurvedic treatise by Susruta (c. 600–400 BC) (Krishnamurthy, 1991) are available even today with descriptions of rice varieties named after their grain morphological features such as *Shakunarhita* (curved), *Panduka* (yellowish), *Pushpandaka* (resembling ovary of flower), *Sugandhaka* (fragrant), *Pundarika* (white), *Mahishamastaka* (resembling buffalo head), and *Dushika* (resembling pencil) (Nene, 2005).

#### Naming based on color

Of the total 360 names collected, 40 rice varieties had been named based on their notable and attractive colors. The colors of grains with husks or the seed coats of grains with bran or the color of hand polished grains without bran or of the color of whole plant had been prominently used as the reason for naming based on color (see box below). The meanings of the terms referring to a particular color are given.

- *Por, sorna, thanga* Golden color
- *Muthu, vellai* White
- *Pavalam, sem, sen, sivappu, kunguma, manika* Red or saffron color
- Neelam Blue
- Karun, Karuppu, Karutta Black
- Manjal Yellow

It can be noted obviously that each name has two parts – the first part denotes color and the latter part indicates the season/duration. Rarely, the latter part of the names may point to the other rice cognates in Tamil as listed in Table 1. In Tamil Nadu, the word *samba* is also used for a rice season (15 July

### Names of rice varieties based on grain color and shape and duration

#### Based on grain color

Muthu samba, Manika samba, Vellai samba, Pavala samba, Kunguma samba, Senthazhai, Sembavala samba, Muthu vellai, Muthu vilangi, Vellai puttu (White puttu), Por sali, Porpalai, Karunguruvai, Vellai mudangan, Pora vellai, Muzhu vellai, Neela samba, Karuppu nel, Karuttakar, Sivappu kuzhiyadichan, Sornavali, Sonnavari, Vellai kariyan, Thanga samba, Sigappu kuruvai kar, Sempalai, Senchamba, Karunchoorai, Sennel, Karuppu nel (Kari nel), Sempalai (Saidapet), Sempalai (Uthamapalayam), Senkar, Senguruvai, Vellari, Vellai kar, Vellai kuruvai, Sambelai, Manjal sirasali, and Karuppu puttu (Black puttu)

#### Based on shape of whole grain

Nedu mookan, Mookan samba, Mookan nel, Kattai valan, Kattai chamba, Gundu nel, Gundu samba, Kurunchamba, Sinna chamba, Periya samba, Perunel, Sirumani, Periya kitchilli samba, Perum samba, Vallai samba, Vallai kar, Valla kar, Periya kitchilli, Konakuruvai, Gundan samba, Kulla kar, Sanna samba, Perungar, and Katta Mosanam

#### Based on duration/season/period

Karthigai samba, Chithiraikali, Chithirai vannan, Nenchamba, Kuruvai, Kuruvai killai, Kuruvai kilai, Kuruvai kilaiyan, Samba mosanam, Karthigai samba, Samba, Aruvadham samba, Chittiraikar, Arubadham kodai, Kar arici, Vaikarai samba, Avasara samba, Arubatham Kuruvai, Kodai samba, Aruvatham vattam, Sornavari kuruvai, Kar (Tirunelveli), Kar samba, Kar (Gobichettipalayam), and Sornavari kuruvai

to 14 January) (Arumugasamy *et al.*, 2001). Moreover, the naming of varieties based on color could be speculated in Taittiriya Samhita of the Black Yajurveda as given below:

- Black rice Krisanam Vrthina
- White rice Sukla Vrihi

According to Appa Rao *et al.* (2002), the art of naming of traditional varieties of rice in Lao PDR by the local farmers depends on color as in the case of the variety Khao kay noi wherein nine different forms of this variety were found in Lao PDR that differ for glume color, with additional descriptors for red (deng) or yellow (leuang).

#### Naming based on shape

The traditional varieties in Tamil Nadu were identified with names relating to their physical characters of whole grains, both husked and pounded. A total of 24 varieties bearing names indicating shape are listed (see box on p. 10). The meaning of some of these terms are given below.

- Gundu Bold
- Mookan Nose
- Periya, peru Big
- Kona Bent
- Siru, sinna Small
- Gundu Bold
- Kuru Short
- *Vallai, valla* Round
- *Nedu* Lengthy

Different sizes of rice were known from the Taittiriya Samhita of the Black Yajurveda, as "... he should divide rice grains into three parts; the mean size he should make into a cake on eight potsherds for Agni, the giver, the largest he should give as a mess to Indra, the bestower, the smallest to Vishnu ...." (II.5.5).

Different sizes of rice grains as quoted in the Srauta Sutra (Dandekar, 1962, 1973) probably indicated the names of varieties.

#### Naming based on appearance

Ninety-nine varieties have been named based exclusively on their notable or general morphological appearance, displaying a special trait or features of fruit, flower, seeds (of other plants), plants, trees, organs of animals, parts of birds, insects, musical instrument, weapon, arrangement, objects, tools, or gems (Table 2).

There is certainly large amount of duplication, i.e., the same variety having different names in different parts of India and there are also instances of different varieties having the same name in different areas. As an example of the former, one variety is named Sarapalli in Trichy district, Sornavari in South Arcot district, and Swarnalu in Godavari district. An example of the latter is the variety Sirumani. Sirumani of Thanjavur is entirely a different variety from Sirumani of Chengalpet or Madras. Based on the characters exhibited by the varieties, our ancestors had named these traditional varieties accordingly. Again, the same name has been used for a variety available in two different places, e.g., Vadan samba of Thanjavur and Vadan samba of North Arcot districts of Tamil Nadu.

Table 2. Names of rice varieties based on appearance.				
Name	Meaning	Name	Meaning	
Azhagu samba	Beautiful	Arumbosa samba	Flower bud	
Nel ethir samba	Opposite arrangement	Ottadai	Spider web	
	of grains	Othu Kitchadi	Type of dish	
Vadan samba	Dried	Kothamalli samba	Coriander	
Thuyya malli	Pure jasmine	Kuthiraval Sirumani	Horse tail	
Kichilli samba	A type of fruit	Sadai samba	Braided hair	
Seeraga samba	Cumin	Poonkar	Flower	
Kallurundaiyan	Round stone	Poonchamba	Flower	
Mattai Kuruvai	Stout and strong	Michamba	Black eye liner	
Mattanel/Mattaikkar	Stout and strong	Kadai samba	A type of bird	
Thidakkal	Heavy stone	Kundrimani samba	A seed of a plant	
Kudirai val samba	Horse tail	Ponmani	Golden beads	
Koomvalai	Spiky banana	Mottakoor	Blunt tip	
Kudai vazhai	Umbrella banana	Sivappu ottadan	Red spider web	
Pitchavari	Striped	Vellai ottadan	White spider web	
Kallundai	Round stone	Kalappu kuruvai	Mixed	
Periyavari	Big stripes	Ponnariyan	Golden rice	
Sadakar	Ordinary	Kattai kulazhan	Short and stout hair	
Mara nel	Wooden	Manakkattai	Wooden slab	
Thanga nel	Golden	Ponkambi samba	Golden rod	
Manalvari	Sand stripes	Karunjeeraga samba	Black cumin	
Sori Kurumbai	Falling coconut buds	Komban samba	Horn-like	
Kulaivazhai nel	Banana with fruit bunch	Koodai nel	Basket like	
Villoondri chamba	Bow	Otha komban	Uni horn	
Arikiravi	Dark	Pamani samba	Poem	
Eerkku samba	Spiky	Kavivari Samba	Poem	
Kallundai samba	Round stone	Puthu vithu	New seed	
Mani chamba	Beady	Thattan samba	Dragon fly	
Iluppai Poo samba	Name of a flower	Thogai samba	Peacock feathers	
Malligai samba	Jasmine	Pavithram samba	Virgin	
Valai thadi chamba	Bent staff	Kaivari samba	Hand stripes	
Korai chamba	A type of grass	Perumbalam samba	Big measure	

continued

Name	Meaning	Name	Meaning
Sempuli kuruvai	Red tiger	Ondarai Kitchadi	Sticky dish
Vangi samba	Royal ornament	Kana kattai	Forest tree
Kattai kulathan	Short community	Thattara vellai	Round plate
Kondalarikiri	Cloudy	Rajameni	Royal physique
Mottai kar	Blunt	Arikiruvi	Available paddy
Uthiri kar	Assorted	Panam kuruvai	Palm
Garudan samba	Eagle	Vadan samba	Dried
Muthu Valai	Pearl banana	(Thanjavur)	
Palan samba	Milky	Vadan samba	Dried
Pillan samba	Grassy	(North Arcot)	
Ottadan	Spider web	Milagu samba	Pepper-like
Poovan samba	A variety of banana	Valancha nel	Bent
Anaikomban	Elephant tusk	Kadai Kazhuthan	Neck of a bird
(Gobichettipalayam)		Anai kombu samba	Elephant tusk
Anaikomban	Elephant tusk	Moongir samba	Bamboo
(Coimbatore)		Kothumai samba	Wheat
Sivappu sirumani	Red small beads	Kuthirai valan	Horse tail
(Thanjavur)		Kadukkan	Stud
Vellai sirumani	White small beads	Kadukkan samba	Stud
(Thanjavur)		Maghudi	Musical instrument
Sirumani (Chengalpet)	Small beady	Kurangu samba	Monkey-like

Table 2. *continued* 

Paninni's Astadhyayi mentioned about flattened rice known as *Prthuka* (II.I.35) as a reference to naming based on appearance. The Ramayana (Bhatt, 1960; Shastri, 1962–70) presents a beautiful description on the appearance of rice in the field in the following passage:

"... Fields of rice with ears resembling *khajura* flowers, bend gracefully under the weight of the grain ..." (Aranya Kanda Ch. 16).

Similarly, in a research conducted in Ethiopia on names and naming of folk varieties

of enset, Tesfaye (2008) corroborates the style of naming of different folk varieties of enset based on plant characters such as feathery leaf, striped, shapeless, woody, long, falling, etc., and also based on names of animals such as antelope and hyena and further based on names of objects such as Sun, Moon, money, stone, thread, milk container, etc.

# Naming in memory of great persons

The traditional rice varieties were named in fond remembrance of great heroes, kings,

warriors, or noble persons who had carved a special niche for themselves in the heart and soul of then ancient Tamils. The present study has revealed 65 varieties christened in memory of then significant Tamil people (see box below).

As observed in the present study, naming traditional varieties as a gesture of remembrance and recognition of a notable person has also been adapted elsewhere in the world as evident from the reports of Tesfaye (2008) about the mode of naming enset varieties in a person's name such as argo, benjo, laallamo, shaarite, and siriiro.

# Varieties with dual names based on color and appearance

Naming of varieties was based on two characters, preferably color and appearance. Hence, those varieties exhibiting two different characters were christened with two names; for example, Muthu malai represents a variety that looks like a pearl garland or necklace or chain displaying the goodness of color and appearance of pearls (Table 3).

According to Nuijten and Almekinders (2008), the rice varieties in Gambia were also given names indicating two characters of the variety such as Sefa Nunfingo (white husk with black tip) and Mani Wulendingo (red husk and small seed), which falls in line with the observations made in the present and during the time of ancient Tamils of yonder years.

#### Naming based on smell/aroma

Only five out of the hundreds of varietal names could be specifically attributed to be based on the characteristic aroma and smell of these varieties. The five varieties are Punugu samba, Manakkathai, Puzhugu samba, Kasthuri samba, and Karpoorapalai. Aroma might be arising after cooking or during cooking or inherently present in nature in the whole plant or in polished or unpolished grains. Abul Fazl Allami gives

# Rice varieties named in memory of great persons

Ottan samba, Kathuri samba, Amarthan samba, Ponnayakan, Pachai perumal, Buththa nel, Thillai koothan, Thiruvarangan, Veedhi vidangan, Ariyanayagam, Azhagiya vannan, Irangal meetan, Adhi varagan, Kannadi koothan, Mangaamar kathan, Vangi Narayanan, Azhagiya Manavalan, Kalingarayan, Kuttralan, Sirai meetan, Ariya nayagan, Kaniyalan, Madurai vanan, Kathuri vannan, Sendalankaran, Thirai kondan, Rasa Rasa vanan, Idai kandan, Achchumurithan, Uyyakondan, Nagarayan, Kanchanankondan, Kongaru, Pandi chamba, Thirunelvely nathan, Annathani, Buththan vari, Ramabanam, Seetha Bogam, Aruchunan, Bavani, Chandikar, Kallimadaiyan, Ariyan nel, Iravai pandi, Kandasali, Sooran kuruvai, Kaliyan samba, Thirumangaiazhvan, Ravanan, Macchu murithan, Valaan nel, Vanaan nel, Annamazhagi samba, Senthi nayagam, Velan samba, Chittan samba, Chirunalairayan, Ayyan samba, Tulukka samba, Valsara mundan, Karutha saradi, Vallarakkan, Marudhi, and Thoppikaran samba

Name	Meaning	Name	Meaning	
Kungumapalai	Red-dried	Katta (or Arai)	Short/Half-red	
Paar kadukkan	Milky-stud	Sembalai		
Manikamalai	Ruby-necklace	Kullai vellai	Short-white	
Muthu malai	Pearl-necklace	Veluthan kudir	Bleached-grain storing	
Peru vellai	Big-white		structure	
Thumbai pasi	White as ' <i>thumbai</i> ' flower-beads	Vellai kottai	White-seed	
		Vellai gundu samba	White-bold	
Peru vellai samba	Big-white	Vellai marakkattai	White-wooden plank	
Muthu vellai	Pearl-white	Vellai muthan	White-pearl	
Vellai Sornavari	White-gold stripes	Vellai kattai	White-wood	
Sivappu sirumani	Red-little beads	Sanna vellai	Small-white	
Vellai sirumani	White-little beads	Semmilagi	Red-pepper	
Perunthandu vellai samba	Sturdy stalk-white			

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a descriptive account on the rice varieties procured for the imperial kitchen during Akbar's era in his famous book Ain-i-Akbari, which quotes about varieties like Sukhdas and Dewzira (Blochman, 1927; Jarret, 1949). Sukhdas is claimed to be a white scented slender variety which is rare to find. Nene (2005) opined that transformation of 'sukhanda' took a final form as 'sukhdas'. In Tamil, the word 'sukhanda' refers to 'pleasant' or 'pleasing'. The following are the terms in Tamil with special reference to smell/aroma:

- Punugu A perfumed substance obtained from a civet cat
- Manakkathai Pleasant odor
- Kasthuri Musk
- Karpooram Camphor

The word 'punugu' might have undergone a syllable transformation into 'puzhugu'. Therefore, it is correlated with a twisted meaning of 'lie'. The terms such as 'samba' refer to duration of the variety and 'palai' refers to dryland.

#### Naming based on period or season

A special reference of varietal names indicating period or season has been observed for 24 varieties of rice (see box on p. 10). Some of the names denote the months in a Tamil year; e.g., Karthigai and Chitirai. A few of them indicate sessions in a day; e.g., Vaikarai. A number of varieties have been named based on their duration or days to maturity; e.g., Samba (late), Kar (early), Kuruvai (short), and Aruvadham/ Arubadham ( $60^{th}$  day). The tendency to early/late flowering or early/late maturity has also been duly considered by ancient Tamils and the varieties have been named

accordingly; e.g., *Avasara* (rapid). One of the Ayurvedic treatises Charaka Samhita (c. 700 BC) (Vidyalankar, 1994) mentions the names of short- and long-duration varieties such as Shastika (60 days) and Vrihi (120 days).

Another notable convention is that the same name 'Kar' has been assigned to varieties located at two different districts namely Kar of Tirunelveli and Kar of Gobichettipalayam. This indicates that these two varieties may show similarity in duration/season but could possibly differ in other morpho-agronomic characters.

#### Naming based on numbers

The rice varieties had also been named based on numerical counts and measures. For example, 'Kalan samba' is basically coined by the union of two terms namely '*kalan*' and '*samba*'. Of these, *samba* indicates the duration of the variety and *kalan* points to more than one meaning in Tamil. Among them, 'measure for food' is applicable in the present context. Similarly, the variety 'Nootrupathu' denotes the figure '110' and the variety 'Thonooran' means '90'. These number-based names could relate to the duration or number of days to maturity of these varieties.

According to the inscriptional references as quoted in the "Indian Archaeology – A Review", a fragmentary Chola inscription with a Tamil engraving records about grant of 4726 *kalam* of paddy to a Jaina temple (Thapar, 1979). Tuk-Tuk Kumar (1988) quotes that measures of paddy in terms of *nali, nari, kalam,* or *marakkal* were in vogue during the period of the renowned king Rajaraja Chola in Tamil Nadu. She also gives a vivid account of payment of rice as revenue, allowances, interest and for procurement of articles of consumption.

#### Naming based on taste

Only one variety could clearly be identified with special reference to taste as 'Nei kitchadi' conveying the meaning that the cooked rice might be as tasty as a special gluey dish of broken rice kernels made out of pure ghee churned from the rich milk of cow. Although it is obvious that these varieties known from the past are nutritiously the best, their taste suitability to the mouthwatering sense could never be neglected. Similarly, a variety called 'Mushkin' is quoted in Ain-i-Akbari, an ancient Mughal account depicting the fragrance of musk and pleasant taste in Persian.

#### Naming based on places

The varieties of yonder years had been named based on the names of places like district names, town names, and type of locations such as gardens, forests, streets, pulverized soil, etc. (see box on p. 17). According to Tesfaye (2008), the enset varieties have been named after the geographical areas such as 'alatichcho, dargichcha, birbo, garawicho' by Sidama ethnic groups in Ethiopia.

#### Naming based on specific reasons

The varieties such as Mapillai samba, Pisini, Kappa samba, Mosanam, Kappan

#### Names of rice varieties based on locations

# **District/Place**

Salem samba, Manila ponni, Gobikar, Athur samba, Coimbatore samba, Rajapalayam samba, Rangoon samba, Nellore samba or Arai samba, Tiruchungodu samba, Tituthuraipoondi Kar, Bangalore Kar, Arcot kitchilli, Amba samuthiram, Seethappakkam, Pudupatti samba, Sembilipuram samba, Kochi samba, and Chengalpattu sirumani

#### Location direction

Vadakathi samba, Vadakkan samba, and Therkathikar

#### **Specific locations**

Kattu Samba (forest), Vaikunda (heaven), Jil Jil vaigunda (heaven), Kuruvai Kalanchiyam (storage kiln for grains), Kottara samba (storage kiln for grains), Kattu kuthalam (forest), Kathuvanam (windy forest), Thotta samba (garden), Veethi Vadankan (street), Pattanam Samba (city), Malai mundan (hill), Malai kitchadi (hill), Kollikar (hill), and Malai nel (hill rice)

#### Dryland

Puzhuthi samba, Puzhuthikkal, Puzhuthi parati, and Puzhuthi peratti kar

samba, and Kalar samba had been named with specific purpose/reason with multiple names.

**Mapillai samba.** The word '*mapillai*' means 'bridegroom'. It was a virtue for every Tamil man to prove his strength and valor. Many sport events were organized to demonstrate the skill and physique as a symbol of masculinity. During the process of selection of bridegroom for a bride, the proposed man had to lift up a huge boulder to manifest his stamina. The night before this event, the cooked grains of the rice variety 'Mapillai samba' were soaked in water overnight. Early next morning, the proposed man had to drink the supernatant water of the soaked grains, which was full of instant energy and enriching nutrients such as carbohydrates, vitamins, etc. With the added energy he would be able to lift up the heavy boulder and win the hand of the bride. So, this variety of paddy was called 'Mapillai samba'.

**Pisini.** The word '*pisini*' means 'stingy person'. The variety was bestowed with this name perhaps based on its volume of expansion during cooking/any other cause related to restricted volume/size.

**Kappa samba.** The word '*kappa*' means 'tapioca'. The variety is called Kappa samba as it is suitable for consumption along

with tapioca or may be because any other morphological feature resembles tapioca.

**Mosanam.** The word '*mosanam*' means 'low lying area'. The variety is known as Mosanam as it is suitable to be grown in low-lying fields or flooded conditions.

**Kappan samba.** This has dual meaning. One is that this variety was paid in measures as tax (*kappam*) and the other relates to tapioca.

Kalar samba. The word '*kalar*' means a 'place of alkalinity'. This variety can withstand high alkaline conditions and is so alkaline resistant.

According to Tesfaye (2008), the enset varieties had been named by folks in South Africa based on miscellaneous specific descriptions such as 'aiidaara' (friends), 'badado' (effort), 'buufare' (small rain), 'garbo' (swampy), 'goocaro' (shallow cooked), 'hemeseesa' (shameless), 'micco' (misery), 'qaanda' (eye discharge), and 'shawwe' (kwashiorkor). The practice of naming the varieties elsewhere based on specific reasons is thereby speculative.

#### Naming of varieties with multiple terms

Rice paddy varieties have been named with unitary names such as Nootrupathu, Thonooran, etc. Varieties were also called by binary terms such as 'Athur samba', 'Malai nel', etc. There are also varieties with multiple terms and meanings as given below.

• Velai chittiraikkar: Vellai (white) + Chitirai (name of Tamil month) + Kar (season)

- Sivappu kar samba: Sivappu (red) + Kar (season) + Samba (season)
- Vellai kar samba: Vellai (white) + Kar (season) + Samba (season)
- Gobi Anaikomban: Gobi (name of distirct) + Anaikomban (elephant tusk)
- Tirunelvely Anaikomban: Tirunelvely (name of district) + Anaikomban (elephant tusk)
- Tirunelvely Sivappu kar samba: Tirunelvely (name of district) + Sivappu (red) + Kar (season) + Samba (duration)
- Puzhuthi samba kuruvai: Puzhuthi (dirt) + Samba (season) + Kuruvai (duration)
- Gobi sadai samba: Gobi (name of district) + Sadai (plait) + Samba (season)

Appa Rao et al. (2002) give a detailed account on the components of naming rice varieties in Lao PDR. Most of the varieties possess three components, viz., basic name, root name, and descriptor name. Thus three components form a single name for a single variety. The naming style adopted by early Tamils resembled their pattern with multiple terms in naming some of the varieties as stated above.

## Naming based on characteristic traits

The varieties of rice were identified based on their special traits and were named accordingly (Table 4). The ability of the varieties to withstand specific stress conditions like salinity, alkalinity, flood or drought, etc. were accounted as criteria for naming the rice varieties by ancient Tamils. The specialty of these names is that the direct meaning of these terms differs from the underlying meaning based on which it has been named so.

The Lao PDR rice varieties were identified for their stress tolerance quality such as drought tolerance and flood tolerance and their names also reflected the same, e.g., Bo ngo nam, Loy loy, and Phou (Appa Rao et al., 2002).

# Unclassified names

Although the varieties had been systematically named with due meanings based on morphological or physiological traits or based on specific or special reasons, there are also varieties which fall into unclassified category with unclear and obscure meanings. The transliteration effort could not provide meaningful correlation and hence the following varieties have been grouped under unclassified names: Polan samba, Vilangi nel, Kalayalai, Velumbala, Velchi, Pattariakkar, Pattar pisin, Ondarai samba, Jirkudai, Maruvilli samba, Payagunda, and Kouni nel.

#### Summary and conclusion

This narrative on the art of naming of traditional rices in Tamil Nadu and their dynamics suggests a variety-naming mechanism that can be explained and also reflects intellectual and careful artistic speculations of ancient Tamils on the character of each and every rice variety that was in vogue in those periods. It is obvious that color, shape, and appearance go hand in hand perfectly in deciding the combinational as well as individualistic names for a variety known then. Besides variety names, the mechanism also gives explanation about subtle differences in regional naming of the same variety. The sincere and passionate memories of people who played key roles in the personal and social systems of ancient

Name	Special trait
Muttakar	Cheap and easy to grow
Kalar palai	Alkaline resistant
Vellai ponni	Very fine white grains
Kuzhiyadichan	Drought resistant
Osuvakuthalai	Drought resistant
Norungan	Fragile grains
Madu muzhungi	Flood resistant
Thinni	Strong and robust
Varappu kudainchan	Deep rooted
Nalla konamani	Good but twisted grains
Thoda valian	Strong thigh-like culms

Table 4. Names of rice varieties based on characteristic traits.

Tamils have been duly acknowledged by them by naming the rice varieties. Literature advocates that these mechanisms may not be the only method of variety-naming system. So, the rest of the mechanisms and methods of naming the varieties of the then Tamil Nadu needs to be brought to limelight. However, it is understood that the described mechanism can be found in many other regions in the world and for a wide range of crops and that understanding the way varieties are named can provide relevant information to researchers and development agents about the richness of diversity of traditional rices in Tamil Nadu.

The naming pattern and methodology highlights the systematic style and wisdom of ancient Tamils in the naming dexterity of rice grains of diverse varieties. The system of identification and classification of the traditional varieties of rice based on color, shape, size, appearance, aroma, taste, duration, season, place, and numbers depicts the observation skills of ancient Tamils to appreciate finer and subtle details. The sense of thoughtfulness about then outstanding personalities and the habit of calling the varieties in memory of their names is remarkable. Based on the special reason or characteristic trait associated with the varietal names, one could obviously know about the salient specialties exclusive to a particular variety lying in store for natural and artificial evolution and breeding programs.

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