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**Published: October 31, 2022**

# Conserving Traditional Paddy Varieties - A Passionate Effort by Ms. Sivaranjini of Nagapattinam District, Tamil Nadu

The conservation of traditional varieties is very much essential to maintain diversity and protect nature from calamities. Various institutions across the globe maintain seed banks to conserve the germplasm from extinction. Farmers also try to conserve their preferred varieties and land races in their own ways. One such conservator is Ms. Sivaranjini of Arivar Seeds Centre, Kuravapuram, Vedaranyam, Nagapattinam. She has collected more than 1250 varieties and is conserving *in-situ* in the field. The seeds are collected through the community of seed collectors and conservators across India without money involvement but through pure passion for conservation. Minimum quantity of seeds are exchanged free of cost like the barter system of the olden days. Her expertise in identifying the origin of the varieties by the physical appearance of the plant is highly commendable. Ms. Sivaranjini received the Chief Minister's State Youth Award 2022 for this huge effort in conservation and spreading of traditional paddy varieties.

## INTRODUCTION

Generation after generation farmers developed different varieties and land races for different agro-climatic and socioeconomic conditions. A wealth of varieties of indigenous rice as a source of unexplored gene

pool occurs naturally. These varieties have great scope for climate change adoption. However, there has also been tremendous loss of traditional knowledge associated with traditional agro-ecosystems and production practices. Rice is the staple food of over half of the world's population and 90% of Asians. In financial year 2021, India's production volume of rice was over 124 million metric tons. A number of high yielding varieties have been released from various research stations. However a lot of varieties/ land races have been used by farmers from time immemorial. Conservation of these landraces is being done by the farmers traditionally. The rice belt of Tamil Nadu extends in the cauvery delta areas of Thanjavur, Thiruvavur, Nagapattinam and Cuddalore.

The farmers are traditional rice growers and their expertise in this field is not challenged. A lot of individual farmers collect and conserve paddy varieties for their farm purpose. One such farmer in Nagapattinam district of Tamil Nadu has gone beyond to the extent of collecting more than 1250 land races; Ms. Sivaranjini and Mr. Saravanakumar of Arivar Seeds Centre, Kuravapuram, Vedaranyam, Nagapattinam. The couple having an engineering and siddha degree respectively, started the effort of collecting and conserving paddy varieties in field from the year 2014 out of interest to conserve the traditional varieties of the Delta region, further extending it to traditional varieties of nearby states like Andhra Pradesh, Kerala, Karnataka, Orissa and even varieties from the North East. Currently, the duo has collected seeds of more than 1250 varieties from across the country. The seeds are collected through the community of seed collectors and conservators across India without money involvement but through pure passion for conservation. Minimum quantity of seeds are exchanged free of cost like the barter system of the olden days. A few of the varieties conserved are listed below.

#### **MEDICINALLY RELEVANT TRADITIONAL VARIETIES HELD BY MS. SIVARANJINI**

<b>Sl.No</b>	<b>Name of the variety/land race</b>	<b>Duration of crop</b>	<b>Colour of Rice</b>
1	Paalakodu vazhai	140	Red
2	Salem Sambha	120	White
3	Cumban Samba	140	White
4	Milaki	150	White
5	Veliyan	140	Red
6	Kichali sambha	135	White
7	Koompalai	150	Red
8	Sivappu kavuni	160	Red
9	Vallarakan	140	White
10	Arcad Kichali	135	White
11	White Ponni	130	White
12	Poli nel	140	White
13	Kandavaari Sambha	145	Red
14	Vellai Milaku sambha	130	White
15	Veedhi veedangan	140	Red
16	Sinna Ponni	140	White
17	Soorakuruvai	120	Red
18	Sempavai	140	White
19	Ananthanur Sannam	135	White
20	Soolai kuruvai	140	Red

21	Kavunni	155	Black
22	Seeraka Samba	120	White
23	Kar nel	120	Red/Kar
24	Thulasi vaasam	130	White
25	Sidha kannam	120	White
26	Karuppu kavuni	140	Black
27	Mysore malli	130	White
28	Mathimuni	140	Red
29	Sempuli Sambha	140	White
30	Yaanai Komban	140	Red
31	Kumbansambha	140	White
32	Jeerakasanna	135	White
33	Raja Bhogum	140	White
34	Karuvasam	140	Red
35	Basmathi	120	White
36	Sivappu Kottaram	145	Red
37	Mutrinsannam	130	Red
38	Sorna masuri	130	White
39	Eramalli	130	White
40	Kallunadayan	130	Red
41	Marathondi	130	Red
42	Arimudan	140	Red
43	Ottadam	150	White
44	Kallundai	130	Red
45	Pumpaalai	140	Red
46	Sambha Mochanam	160	Red
47	Mutkar	140	Red
48	Karikajanade	130	White
49	Nepal Seerak sambha	130	White
50	Kasturi	140	White
51	Pansaan	140	White
52	Burma Black	130	Black
53	Jeepampul	130	White
54	Urunka	130	White
55	Sitika	140	White
56	Sundharasali	140	White
57	Karikalavi	140	Red
58	Kandasali	135	White
59	Rani Nel	140	White
60	Nagaland nel	130	White
61	Baahiroopi	145	White
62	Arigiraavi	140	Red
63	Palkuri	145	Red
64	Sannakki Nel	140	White
65	Swarnamasuri	130	White
66	Kajothar	130	White
67	Kongin Puthha	140	White
68	Kalaasu	130	White

69	Rathansudi	120	Red
70	Milagusambha	150	White
71	Kumsale	130	White
72	Basmukhi	140	White
73	Sevnelu	140	White
74	Raskadam	120	White
75	Lokathy	100	White
76	Kungumasala	120	White
77	Komal	130	Red
78	Maanikpaak	140	White
79	Jeeli	135	White
80	Soolkaja	130	White

**INSITU CONSERVATION METHOD**

The in-field conservation and multiplication of seeds is the herculean task faced by conservators. Seeds in hand and seeds obtained from others are stored in numbered cloth bags serially arranged and noted in a record. The seeds are stored as panicles wherever possible to avoid admixtures. The seeds are sown in October by the onset of Nort East monsoon. Additional irrigation is done by water from borewells stored in farm ponds. The conserved seeds are sown in plots of 3 X 3 feet plots along with farmyard manure. Panchagavya and Daincha are other inputs used frequently. Neem Seed kernel extract is used for pest and disease management. Harvest, drying and packing are done separately and labelled.





### **CHALLENGES AND PREFERENCES**

The preference of farmers in traditional varieties depends on non-lodging and pest resistance. The farmers book their preferences with the seeds conservators and they in turn link them with the farmers who multiply specific seeds in their farm. Age of seeds, germination percentage, Season, maintaining purity and climatic factors pose challenge in the conservation process during the cultivation. The couple have a network of paddy conservators across the country with which knowledge sharing and varietal sharing is done.

Her expertise in identifying the origin of the varieties by the physical appearance of the plant is highly commendable. Ms. Sivaranjini received the Chief Minister's State Youth Award 2022 for this huge effort in conservation and spreading of traditional paddy varieties.

### **CONCLUSION**

The varieties and land races needs to be conserved from extinction as germplasms may turn out to be miracle savers in times of calamity. Institutionalised and personalised conservation measures are very much important to preserve the germplasm. Efforts like that of individual conservators needs to be encouraged and brought into the institutional mechanism to make it sustaining. Seed banks at regional levels with due recognition to the passionate conservators will definitely help in conserving the traditional varieties of a region.