

(5) Name of the Innovation: “PNS-Vaigai” variety of small cardamom

A. Nature of the innovation

Shri. P.N. Surulivel (late) hailing from Theni district of Tamil Nadu developed the variety. PNS Vaigai variety has high yield potential coupled with bold sized capsules. It belongs to cultivar Vazukka and possess bigger rhizome. Invariably three to four panicles are noticed per bearing tiller. Around 25–32 racemes are found on a panicle. The yield is higher and ranges from 2200 to 3500 kg/ha. Capsule husk is thin and it reflects on its high recovery percentage. Capsules are green in colour and about 60–70% of the produce attain 7 mm and above size.



B. Problem statement

High yielding varieties, which are cultivated by farmers, are highly prone to pest & disease incidence. The need for high yielding variety coupled with inherent disease and pest resistance led to the innovation of “PNS Vaigai” with excellent growth and yield attributing characters.

C. Process of technology development

In late sixties, Surulivel started cultivating cardamom (Mysore type) on his farm. Then in 1986, he came across some other varieties, which grew well in both drought and water logged conditions. His wife who has been quite observant pointed out two plants that outperformed others in the field. He noted the quantitative and qualitative traits of these plants such as growth, yield, and resistance to pests, diseases and abiotic stress viz. drought tolerance, water logging, aroma, oil content, etc. over the next five years. He isolated and planted this variety in one acre of land in 1991. He multiplied the selected lines by vegetative propagation. The planting pits were 3 x 3 x 2 feet, filled with lime powder, compost and topsoil. The split suckers were planted in pits and protected from wind by supporting the plants with stakes. Dried leaves were used for mulching to prevent soil erosion and to conserve soil moisture. Then organic manure was applied at three months interval. Five years later in 1996, the plants started yielding. He named the variety as ‘PNS-Vaigai’, PNS standing for his name (P.N.Surulivelu) and Vaigai, which is the name of the river flowing nearby in the Cumbum valley.



The major advantages of the innovation are-


- ✓ The dark green coloured non-pubescent leaves and prominent ligules with light pale green colour are the sticking feature of the landrace.
- ✓ Capsules are extra bold with parrot green colour and thick skin.
- ✓ Resistant to pest and disease attack.

D. Replication and promotion

Around 5,50,000 plants are distributed from 2003 onwards to about 4000 farmers in various places in Kerala and border districts of Karnataka and Tamil Nadu.

E. Recognition

He has been appreciated and awarded by the Spices Board, Kochi for his efforts in developing this new high yielding variety in 2003. He is the recipient of NIF award from the President of India, honoured by *Sristi Samman* from Government of Gujarat in 2006 & honorary Doctorate from the University of Thailand.

 Name & Address	P.N. Surulivel (late) S. Gopinath (son) PNS Vaigai Estate Sasthanodai Anavilasam Kumily, Idukki
Phone no.	04554-228234 / 272869 (0)9159363636
Educational qualification	7 th Pass
Land holding (in ha)	20
Farming experience	52
Name of the crop/ Livestock/ other enterprises	Cardamom
Social recognition	Member NIF