

(3) Name of the Innovation: “WONDER CARDAMOM” variety of small cardamom

A. Nature of the innovation

A Small farmer created a big wonder called ‘Wonder cardamom’ that can withstand drought conditions and lower altitudes of rubber plantations. The man with magical touch is Sabu Varghese from Idukki District, Kerala. At a place where sometimes even sunlight cannot reach, Sabu’s indigenous skill reached and created a wonder. The specialty of the variety is that this drought-resistant cardamom variety can also be grown at a lower altitude and has branched panicles.



B. Problem statement

In the prevailing climatic regimes where the rainfall is getting erratic, existing cardamom varieties are more prone to drought and productivity is harmed. Further cardamom is not grown in lower altitudes. Many a research has been carried out to evolve a variety which grows well in lower altitudes but with no commendable result. Also the racemes of popular varieties are not branched resulting in less productivity per panicle.



C. Process of technology development

Sabu Varghese used to collect many plants from different places and grow them in his land as a favorite pastime. While doing so in cardamom, he observed a difference in one plant, which he grew in his plot. The plant was tall with numerous and long tillers as well as big capsules. He took one ripe capsule and grew seedlings from it in 1992, which turned out to be very robust, healthy and bearing bold capsules. By 1999-2000, he had produced around 250 such plants through vegetative propagation. According to him, though the occurrence of variation was accidental, the evolution of the new superior variety, which took seven long years from 1992 to 1999, was a result of his own efforts. He named the variety after the name of his house *Vanderkunnel*. He recollects that the source of the variety to be a land race, which he had collected.

Performance data of Wonder Cardamom

Significant characteristics	Wonder Cardamom
Total tillers /plant	30-50
No. of bearing tillers / plant	30-50
No. of panicles / tiller	3-4
No. of capsules / raceme	25-35
Length of panicle	120-180 cm
Size of capsule	8 mm (60% of capsules)

Recovery of dry from green cardamom (kg)	1 kg from 4.5 kg
Plants / acre	400-450
Yield / ha / year (green in kg)	13300-15200
Yield / ha / year (dry in kg)	3500-4000
Oil content (%)	Not estimated

The major advantages of the innovation are

- ✓ Panicles are branched.
- ✓ Relatively can be grown in the lower altitudes.
- ✓ Recovery percentage is high (3.8 kg green cardamom after drying gives one kg, whereas in other varieties 5 kg or more gives 1 kg dry capsules).
- ✓ Yield per plant is 3.0 to 4.0 kg of dry cardamom compared to 2.0-2.5 kg in Njallani - the most popular variety of the region.
- ✓ Length of the spike and branches are more than other varieties.
- ✓ More tillers per clump (30-50) compared to 25-40 in Njallani.
- ✓ Capsules are long and extra bold in size.

D. Replication and promotion

Around 1,50,000 plants are distributed till now from 2001 onwards to about 5000 farmers in various places like Wyanad, Idukki, Kottayam, Kodaikanal (Tamilnadu) and Madakkara (Karnataka).

E. Recognition

He is a cardamom award winner of the Spices Board during 2001-2002 and was also recognized and felicitated by the Honey Bee Network during the Shodhyatra in December, 2005.

	Name & Address	Sabu Varghese, Vanderkunnel, Valiathouvala P.O. 685510 Idukki district, Kerala State.
Phone no.		04868 276229, 9744796963
Educational qualification		Pre-Degree
Land holding (in ha)		2.0
Farming experience		25 yrs
Name of the crop/ Livestock/ other enterprises		Mixed farming
Social recognition		Nil