

Miscellany

A note on a ginger (*Zingiber officinale* Rosc.) type collected from Western Ghats, South India

Even though South East Asia is considered to be the centre of origin of ginger (*Zingiber officinale* Rosc.) (Bailey 1949), there are very few reports of ginger occurring in the wild state. Fisher (1921) recorded that ginger was seen apparently in wild conditions in the Anamalais at about 2300 ft elevation. Muralidharan & Velayudhan (1983) also indicated the possibility of ginger growing as a component of natural vegetation in pockets of Western Ghats at higher altitudes.

The present note deals with a type of ginger collected from Ponnambalamedu peak of Sabarimala Hills (Western Ghats) during a collection survey in 1990. These plants, which were dwarfish and shallow rooted, were found occurring in small patches in a predominantly grassland area at the hill top. Few tillers of the plant with the underground rhizome were collected and studied at IISR Farm, Peruvannamuzhi after multiplication. The plant is characterised by profuse tillering, dwarf habit, small leaves, lateral flowering, early maturity, thin small elongated rhizomes with clear primary, secondary and even tertiary structures, low yield, tendency to grow perennially, lack of seed set, absence of root tubers and high essential oil content (Table 1). No

resistance to pests was noticed in this material.

Even though, the present collection possesses many distinct morphological features, only a more systematic collection and study of ginger types including molecular marker analysis will establish the existence of wild types of ginger. The possibility of ginger escaping from cultivation and running wild in Western Ghat forests also exists. Purseglove (1972) also believes that *Z. officinale* does not occur in a true wild state. With respect to most of the agronomical features studied, the present collection presents a primitive type as plant height, rhizome yield, dry recovery etc. might have been the main selection criteria followed during the course of domestication/evolution of ginger.

The fact that South East Asia encompassing the Indian sub-continent is considered to be centre of origin of ginger coupled with the present and earlier similar reports, indicate the possibility of existence of wild ginger in South East Asian regions. An extensive survey of these regions may also result in collection of types having desired qualities not available in the cultivated types at present.

Table 1. Agronomic features of the ginger type collected from Ponnambalamedu and a popular cultivar (Maran)

Character	Ponnambalamedu collection	Maran
Plant height (cm)	45.56	67.70
Tiller number	11.20	8.20
Leaf number	19.60	22.52
Leaf length (cm)	24.68	26.62
Leaf width (cm)	2.58	2.96
Days to maturity	198	210
Fresh yield/3m ² bed (kg)	7.08	12.43
Dry recovery (%)	19.00	20.00
Essential oil (%)	3.50	2.20
Fibre (%)	5.00	7.00
Oleoresin (%)	7.00	7.30

Values are means of 2 years

References

- Bailey L H 1949 Manual of Cultivated Plants 2nd Edn. Macmillan, New York.
- Fischer CEC 1921 A survey of the flora of Anaimalais Hills in Coimbatore District of Madras Presidency. Rec. Bot. Surv. India 4(1) : 178.
- Muralidharan V K & Velayudhan K C 1983 A note on the occurrence of wild ginger in Western Ghats. South Indian Hort. 31 : 259-260.
- Purseglove J W 1972 Tropical Crops. Monocotyledons. Longman Group Ltd., London.
- (B) SASIKUMAR, K JOHNSON GEORGE & T JOHN ZACHARIAH, Indian Institute of Spices Research, Calicut - 673 012, Kerala, India.)