SHORT COMMUNICATION

Collection and Evaluation of Wild Betelvine Germplasm from Andaman Islands

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Betel vine (*Piper betle* L.) is a prominent cash crop cultivated for its leaves, with a strong aromatic flavour, which is used for masticatory purposes in combination with lime, arecanut and so on. It finds a significant place in our socio-cultural life and religious ceremonies, besides having a number of medicinal properties.

In the earlier literature available, there is no report of betel vine occurring in the wild in Indian mainland (Ellis and Vishnoi, 1989). The Andaman and Nicobar group of islands in the Bay of Bengal is situated between 6°-14° N latitudes and 92°-94° E longitudes with warm and humid tropical climate. The average annual rainfall is 3800 mm with 80% relative humidity and the temperature ranging from 22 to 32°C. The first report of betel vine growing in wild condition was by Kurz (1876) who observed the availability of both cultivated and wild plants in the beach forests of Nicobar islands. Betel vine in the wild state was found to occur in the inland forests also, Kloss (1903) observed wild betel vine also known as 'Sirah leaf', occurring in the wild from Northern Andaman islands to Southern most Great Nicobar. Sreekumar and Ellis (1990) reported six wild relatives of betel vine from Great Nicobar which are used by the local tribes 'Shompens'. They also opined the Great Nicobar might be the center of origin of this economically important plant species, as lot of diversity is prevalent and no other report of this species in the wild has been given in any botanical work. Sreekumar *et al.*, (1996) observed that *Piper betle* L. is one of the 250 economically important vascular plant growing wild in the islands and is being used by the inhabitants.

The collection and conservation of these wild species assume significance. Efforts are being made by the Central Agricultural Research Institute, Port Blair to collect and increase the betel vine germplasm. Eight

Table 1. A brief description of the germplasm collection

Description	CARI-B1	CARI-B2	CARI-B3	CARI-B4	CARI-B5	CARI-B6	CARI-B7-1	CARI-B8
1. Source (S/Andaman)	Choudhari (S/Andaman)	Choudhari	Rutland	Rutland	Rutland	Protherapur (S/Andaman)	S/Andaman	S/Andaman
2. Natural Hahitat	Near streams	Near streams	Near streams and in shade of large trees	Shade loving	Near streams dark shady areas	Forest	Near streams	Near streams
3. Leaf size								
Length (cm)	17.69	10.59	5.0	9.67	14.33	8.18	12.22	11.86
Breadth (cm)	9.33	5.68	4.0	6.4	4.67	6.38	9.3	9.43
Colour	Green	Green	Green	Green	Green	Green	Dark green	Dark green
Venation	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Petiole length (cm)	6.05	6.0	3.0	5.0	5.0	3.06	5.24	6.8
4. Internodal Length(cm)	12.87	7.0	4.03	11.33	10.0	3.02	7.94	11.7
5. Stem colour	Green	Green	Pink pigment	Green	Green	Greyish green	Green	Green
6. Prefernce for chewing	Very much preferred by the locals	Not much preferred	Not used for chewing	Not Much preferred	Very much preferred for chewing	Moderate	Prefered for chewing	Most preferred for chewing
7. Other characters	Plants are vigorous but cannot withstand sunshine	Plants are less vigorous with small thick leaves and thin stem	Plants are rare. Absolutely no damage by any pests	-	Long and narrow leaves	Plant is short in stature and not vigorous	Plant is vigorous	Leaf is acute and pointed disease and pest incidence is nil.

genotypes of wild germplasm of betel vine collected so far from North and South Andamans are being evaluated for desirable traits. Table 1 presents the evaluation date of eight wild genotypes of betel vine. Among the eight wild collections described, CARI-B7-1 is found to have potential for cultivation purpose as well as for use in crop improvement work. This collection is found to be free of pest infestation and disease incidence and is also preferred very much by the local people for chewing. The fresh weight of 100 leaves is 219.30 and it keeps well 23 days under controlled storage conditions (leaves kept in perforated polybags). Multiplication of this promising variety of betel vine is progressively going on at CARI, so as to put it into use for future crop improvement programme.

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