Wild edible fruits of Tripura

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Abstract

Tripura is one of the eight jewels of the North-Eastern States and the state weather is characterized by subtropical, warm and humid condition, which favours the luxuriant growth of various edible fruit crops. In addition to the major fruits grown (Mango, Litchi, Pineapple, Orange, Banana and Jackfruit) in this state, there are many edible fruits exist naturally in forest as well as in cultivable areas. These fruit plants are playing a vital role in providing nutritional and economic security to the poor masses in rural areas but the commercial importance and market value of these wild fruits is unknown to them. This paper lists the wild edible fruits and their uses for further exploration.

Keywords : Fruits, Wild edible fruits, Genetic resources, Tripura.

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Spondias sp.

Introduction

Tripura is located at 22° 56′ to 24° 32′ latitude and 91° 10′ to 92° 21′ longitude. The geographical area of Tripura is about 10,491sq km of which 60 per cent constitute forest and remaining 40 per cent is available for cultivation. Agriculture is an important sector in the state, which contributes 26 per cent of the State GDP of which the major contribution is from horticultural crops of Fruits (Pineapple, Litchi and Oranges), Vegetables (Potato TPS), Plantation Crops (Cashew nut, Coconut, Rubber and Tea), Spices (Ginger, Turmeric and Black pepper), etc. More than 75 per cent of the population either directly or indirectly depends on agriculture. The small and marginal farmers contribute about 90 per cent of total farming community and the average size of land holding is 0.97ha which is the lowest among the seven other North-Eastern states. The state weather is characterized by warm and humid subtropical climate with three distinct seasons, viz. summer, monsoon and winter with four different cropping seasons like *Khariff*, *Rabi*, Summer and *Jhum* cultivation in forest during pre-monsoon and late monsoon periods. This state has many rivers out of which the important ones are Juri, Deo, Manu, Dalai, Thowai, Haora, Mahari, Burigang and Gomati which are mainly seasonal. Tripura receives an average rainfall of 2065mm. The monsoon breaks in May-June and continues for about 4-5 months. The people of Tripura are nature loving and it is evident from naming the place with tree name, i.e. *Sal bagan* (a place where sal is grown), *Litchi bagan* (a place where litchi is grown), *Tala mura* (a place where palmyrah is grown), *Khejur bagan* (a place where wild dates is grown), *Ambasa* (Mango and wild mango found), *Jam juri* (a place where jamun is grown), *Kola bagan* (a place where banana is grown), *Padya pukur par* (a place where lotus is grown), etc. Keeping all above points in view a survey was conducted in West and South Tripura to document the genetic resources of wild

Averrhoea carambola

Averrhoea carambola twig with fruits

edible fruits. Table 1 enumerates 40 wild edible fruits reported from Tripura for further exploration and commercial cultivation.

The agroclimatic conditions, fertile soils and good amount of rainfall favours the existence of large number of fruit crops in this region. There is a huge genetic diversity, which can be used for creating the gene bank (field and *in vivo*) and the collection, conservation and utilization of these crops and standardization of agro-techniques is essential for their profitable cultivation and maximum yield realization in these crops. Out of 40 plants mentioned in the Table 1 all are widely found in Tripura except ***Borassus flabellifer***, ***Feronia limonia***, ***Manilkara achras***, ***Phoenix sylvestris*** and ***Tamarindus indica*** which are found in West Tripura only and ***Mangifera sylvatica*** is restricted to North Tripura. ***Passiflora edulis*** and ***Phyllanthus acidus*** are limited to West and South Tripura.

Elaeocarpus floribundus

Dillenia pentagyna twig with fruits

Dillenia fruits

Ficus glomerata

Table 1 : List of wild edible fruits of Tripura[1-4]

S.No.	Botanical/Family Name	Common	Flowering (FL) Name	Remarks & Fruiting (FT)
1.	***Aegle marmelos* Correa ex Roxb.** Rutaceae	*Bael*	Jan-Feb (FT)	Used for the preparation of *Sarbath.*
2.	***Annona reticulata* Linn.** Annonaceae	Annona	March-April (FT)	-
3.	***Annona squamosa* Linn.**	*Ata*	March-April (FT)	-
4.	***Antidesma acuminatum* Wall. ex Wight** Euphorbiaceae	*Sialbuka*	Jan-Feb (FL) May-June (FT)	-
5.	***Artocarpus chaplasha* Roxb.** Moraceae	*Chamal*	Jan-Feb (FL) May-June (FT)	-
6.	***Artocarpus lakoocha* Roxb.**	Monkey jack	Jan-Feb (FL) May-June (FT)	-
7.	***Averrhoea bilimbi* Linn.** Averroheaceae	*Bilimbi*	Year round	-
8.	***Averrhoea carambola* Linn.**	*Kamranga*	Year round	-
9.	***Borassus flabellifer* Linn.** Arecaceae	-	Jan-Feb (FL) May-June (FT)	Toddy is extracted from stem and used for preparation of jaggery.

S.No.	Botanical/Family Name	Common Name	Flowering (FL) & Fruiting (FT)	Remarks
10.	***Bridelia retusa* Spreng.**/Euphorbiaceae	*Kumkumi*	Dec-Jan (FL)	-
11.	***Carissa carandas* Linn.**/Apocynaceae	*Karonda*	Aug-Sept (FT)	-
12.	***Citrus maxima* (Burm.) Merrill**/Rutaceae	*Jambura*	Year round	-
13.	***Dillenia pentagyna* Roxb.**/Dilleniaceae	*Chalta*	Aug-Sept (FT)	-
14.	***Elaeocarpus floribundus* Blume** Elaeocarpaceae	*Jalpui*	Oct-Nov (FT)	-
15.	***Emblica officinalis* Gaertn.** syn. *Phyllanthus emblica* Linn. Euphorbiaceae	*Amlaki, Amla, Aonla*	Feb-March (FL) Nov-Dec (FT)	The fruits possess medicinal value and used for the preparation of *Chavanprash*.
16.	***Feronia limonia* (Linn.) Swingle** syn. *F. elephantum* Correa Rutaceae	*Kaith*, Elephant apple	March-April (FL) Nov-Feb (FT)	Fruits used for the preparation of jam and possess medicinal value also.
17.	***Ficus glomerata* Roxb.** syn. *F. racemosa*. Linn. Moraceae	*Udumbara*, *Yagyadumur*, *Gular*, Country fig	Feb-March (FL) June-July (FT)	The fruits possess medicinal value.
18.	***Flacourtia* sp.** Flacouriaceae	*Payala*	March-April	The fruits possess medicinal value.
19.	***Garcinia pedunculata* Roxb.** Clusiaceae	*Baikal*, *Amelvet*	Sept-Oct (FT)	The fruits possess medicinal value.
20.	***Grewia hirsuta* Vahl.** Tiliaceae	Wild *Phalsa*	Dec-Jan (FT)	-
21.	***Grewia sapida* Roxb.**	Wild *Phalsa*	Dec-Jan (FT)	-
22.	***Mangifera sylvatica* Roxb.** Anacardiaceae	*Aam*, *Ambi*, Mango	Jan-Feb (FL) May-June (FT)	Fruits are used for jam, jelly and pickles.
23.	***Manilkara achras* (Mill.) Fosb.** Sapotaceae	*Khirni*	Feb-March (FL)	Fruits are used for jam, jelly and *sarbath*.
24.	***Morus australis* Poir.** syn. *M. acidosa* Linn. f. Moraceae	*Tut*	Jan-Feb (FL) May-June (FT)	Fruits are medicinally important.
25.	***Passiflora edulis* Sims** Passifloraceae	Passion fruit	March-April (FL) June-July (FT)	Used for squash preparation.
26.	***Phoenix sylvestris* Roxb.** Arecaceae	*Khajur*	Jan-Feb (FL) May-June (FT)	Toddy is extracted from fruits.
27.	***Phyllanthus acidus* Skeels** Euphorbiaceae	*Harabari*, *Paramlaki*	Jan-Feb (FL) May-June (FT)	Fruits used for pickle preparation.
28.	***Physalis minima* Linn.** Solanaceae	*Batepari*	Feb-March (FL)	-
29.	***Psidium guajava* Linn.** Myrtaceae	Wild Guava	Dec-Jan (FT)	-

S.No.	Botanical/Family Name	Common Name	Flowering (FL) & Fruiting (FT)	Remarks
30.	***Rubus niveus* Thunb.** Rosaceae	-	Sept-Oct (FT)	-
31.	***Spondias pinnata* (Linn. f.) Kurz** Anacardiaceae	*Amra*, *Hogplum*	Jan-Feb(FL) May-June (FT)	Fruits are used for pickle preparation. Fruit needs standardization of package of practices. The plant is highly suitable for commercial cultivation.
32.	***Syzygium cerasoides* Raizada** Myrtaceae	*Bhali Jamun*	March-April (FL) June-July (FT)	Fruits are used for juice, jam and jelly preparation.
33.	***Syzygium cuminii* (Linn.) Skeels**	*Kala jam*	March -April (FL) June-July (FT)	-do-
34.	***Syzygium jambos* (Linn.) Alston**	*Gulab jamun*	March-April (FL) June-July (FT)	-do-
35.	***Syzygium samarangense* (Blume) Merrill & Perry**	*Jamrul*	March-April (FL) June-July (FT)	-do-
36.	***Tamarindus indica* Linn.** Caesalpiniaceae	*Imli*, *Tentul*, *Amlaka*	March-April (FL)	Fruits are used as spice, and checks vomiting.
37.	***Tetrastigma lanceolarium* (Roxb.) Planch.** / Vitaceae	-	Feb-March (FL)	The fruits are used for table purpose.
38.	***Ziziphus funiculosa* Buch.-Ham. ex Wall.** Rhamnaceae	Wild *Kul*	Dec-Jan (FT)	-
39.	***Ziziphus mauritiana* Lam.**	*Kul*	Dec-Jan (FT)	The fruits are used for candy making.
40.	***Ziziphus oenoplia* Mill.**	*Siakul*	Dec-Jan (FT)	The fruits are used for table purpose.

Conclusion

Tripura is blessed with various natural resources especially the plant genetic resources. In case of fruit crops, only few crops are commercially cultivated. Though there are many wild fruits in this state, there is no proper collection, improvement and agro- techniques for these crops. Hence, there much emphasis should be given to: (i) exploration and collection, (ii) *In situ* or *ex situ* conservation, (iii) studying nutritional and anti-nutritional properties and, (iv) product development and marketing.

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