

# Mango-lore of Bengal

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**Abstract**— *The mango (Mangifera indica L.) makes up a significant horticultural blessing of India. No other fruit has such a conspicuous register in written works, verses, mythical tradition, chronicles, painting and statuesque as that of mango. The colloquial name of mango is ‘aam’ which implies ‘the common’. It is not only typical throughout India; but is also the fruit of the ordinary folk people. Attributable to its nutritive advantage mango has pandemic solicitation and promptly called the ‘king of fruit’. Moreover, ripe fruit is revitalizing, energizing, fattening, diuretic and laxative. Each and every portion is promising, rewarding and propitious and has been employed in folk remedies in some procedure or another. Besides gobbled as dessert as well as green, mango can be cured by processing into different products in domicile and folk industry. Like Ayurveda, folk medicine also gives equal importance to preventives as well as curative measures but folk prescriptions are covered in the name of rituals and rites and some other cultural behaviour. Gangetic West Bengal is rich in mango-lore and the folk people have valuable wisdom relating to mango and they undertake their own experimentation in their own ways either in the orchards (for ITKs), or in the kitchens (for folk foods) or in the dispensaries (for folk medicines) and in the mind-land (for folk literature). Therefore, it was worthwhile to conduct a survey in the perspective of mango-lore of the Gangetic West Bengal for collecting and documenting the riches of folklore by participatory rural folk appraisal. The present study is based on intensive surveys carried out over a period of 4 years starting from the year 2007 with a detailed account of the folk diversities, folk knowledge and cultural tradition pertaining to mango cultivation and industry in Bengal. Mango-lore, the aggregate of cultural tradition delineating mango, is originated from the beliefs, culture and customs of folk people and it covers the tradition based cultural expressions exemplified by non-material folklore (viz. riddles, proverbs, sayings, folk tales, folk songs etc.) and material folklore (viz. folk foods, folk medicines, folk implements, folk varieties etc.). In the folk songs and dramas of Bengal, the diversities in mango are mentioned. Less than 5 per cent mango area of Bengal is under the cultivation of these diversities. Though it is now a common practice that orchardist-folk sells their orchards to the merchant-folk for a specific period of time, the so called folk germplasm are kept for their own consumption. Though the industrial-orchardist, now-a-days, have least interest in those folk varieties and more frequently than not they avail the opportunity of felling those, the ambitious scientists and institutions are now looking forward to have right to hold the genetic resources of the folk germplasm of mango. But as folk wisdom as well as folk variety of mango is the wealth of a folk, any individual does not claim the credit and these are closely related to culture and heritage of folk people in confined locations. Social scientists should be alert regarding this folk-intellection in plant improvement of mango.*

**Keywords**— *Folk food, Folk knowledge, Folk literature, Folklore, Folk medicine, Folk-variety, Mango-lore, Participatory Research.*

### I. INTRODUCTION

Mango (*Mangifera indica* L.) is the most pre-eminent among the sub-tropical fruits of India in view of the acreage, production and admiration among the people. It is one of the oldest cultivated fruit crops, having been grown in India for at least 4000 years. This fruit is intimately associated with the Hindu religion and there are numerous ancient Sanskrit poems praising the blossoms and fruit. It is now widely spread all through the tropics and subtropics. Mango is attracted to all young or old and rich or poor. The colloquial name of mango is ‘am’ which implies ‘the common’. It is not only typical throughout India, but is also the fruit of the ordinary folk people. From time immemorial Indians have a great fondness and attraction for this very fruit. They enjoy and adore the fruit more closely like that of date palm in Arabs and watermelon and grapes in Kandahar.

Folklore is a congregation- directed and observation-supported criterion of a populace of individual mirroring the assumption of the group as a sufficient articulation of its cultural specification. Its form included language, literature, music, dance, games, mythology, rituals, customs handicrafts, architecture and other arts. A study was made on the riches of folklore on Bengal in the perspective of horticultural education and knowledge. There is a close-set linkage between knowledge and folklore. Folklore, in fact, is the ‘language of root’ and the ‘song of soil’. That is created in the minds of human beings in associated with the crop fields, meadows, the trees and creepers. This unknown, unlighted and undescribed life culture and mind culture is mostly agriculture based. The tremendous riches of folk knowledge on agriculture as well as horticulture are unrevealed under the cover of scientific wisdom. Farm lore is the base and different super structures<sup>2</sup> in the form of scientific

knowledge are created on it. 'Folk' means the similar group of populace united by ethnic, semantic, theological and artistic affairs. 'Lore' is spread in the life style and philosophy and it passes from generation to generation by simple words of mouth. In human society there is hardly any subject that folklore has not touched. Just as crops grow in land, and a smell of the soil sticks to it, similarly folk literatures also have a smell of the soil in them

There is no recorded evidence of any study with mango-lore so far as the present authors' knowledge goes. This study is one of the pioneering attempts to explore the mango based folklore of Bengal. The present authors are using the term 'mango-lore' to denote the aggregate of cultural tradition delineating mango. This is a compound word by dividing it into 'mango' and 'lore'. Lore means learning. It is a set of knowledge of folk. Lore created and possessed by the mango growers is called mango-lore. Mango-lore is the scientific study of folklore of mango by the experts.

## II. MATERIAL AND METHODS

### Experimental area

West Bengal is a part of the Eastern India, located between 21°31' and 27°14' N latitude and 85°51' and 89°E longitude. The tropic of cancer passes through the middle of the state covering the districts of Nadia, Burdwan, Bankura and Purulia.

The experimental area is under the Gangetic Alluvial Zone. It includes Gangetic Flood plain Region. Climatically the region comes under tropical humid with rainfall of 1350 to 1650 mm, temperature maximum 35.0°C and minimum 15.6°C (Annual normal).

The region is composed of alluvium carried by river Ganga and its tributaries and may be broadly classified into Ganga upland with relatively matured alluvial soil, Ganga flat land with matured soil and Ganga riverine receiving fresh alluvium recurrently.

Soils are very deep medium fine to medium in texture, neutral to mildly alkaline in pH. Calcareousness is significant in large section, base saturation moderately high, NP status medium to medium low and potash status is medium to high, external drainage medium to low and internal drainage is moderate.

Extensive use of ground water by DTM and STW and surface water with the help of river lifts and numerous pump sets have brought in intensive multi-crop approach in this region indulging simultaneously the problems and crisis through over use of land and water resources.

### Mango-lore Survey

Folk wisdom is knowledge that is unique to a given territory, culture and society. Folk wisdom is originated from the beliefs, culture and customs of folk people. This indigenous knowledge is used at the micro level in a given agro ecosystem. It is no doubt that for every folk technicality there was a primitive pathfinder or technician who actually innovates any idea or rule but with the passage of time that may be modified and amended by the folk people. Therefore, folk wisdom is the wealth of a folk, and the credit is not claimed by any individual. Wisdom may be of two types – technical and non technical. The folk technical wisdom is used as the basis for decision making pertaining to food security, human and animal health, natural resource management and other vital activities. There is a minor difference between folk wisdom and folk knowledge. Wisdom means the body of knowledge and experience that develops within a specified society or period. Knowledge means information and skills gained through experience or education. Folk wisdom means unique, elementary and inherent uninfluenced knowledge base of a particular folk group from time immemorial. That is obviously location and culture specific and transmitted orally generation after generation in simple words of mouth.

People's participation means getting people physically and mentally involved in certain activity. People's participation is a central feature of contemporary rural development and extension efforts throughout the developing countries across the world. Across the third world, examples are too many, sharing the extent of innovation and local level knowledge base possessed by the farmers. Such items of knowledge are strewn across the rural society in the form of practices, folklores, verses and words of mouth usually with the elderly persons, as it often happens in tribal societies. However, often the hardcore scientists are tempted to ridicule them and dismiss local knowledge as useless. But growing awareness on the value and potential of learning from such knowledge base are witnessed.

There is an astonishing fact that like other farmers, fruit growers as well as mango orchardists have valuable wisdom. They undertake their orchard experimentation in their own ways. A critical analysis of existing folk wisdom in the perspective of mango-lore and integrating the same with scientific base for boosting productivity with a sustainable manner is of immense value. To achieve the objective of travelling on the riches of mango-lore of Gangetic West Bengal, a brief methodology has been worked out and given here.

Participatory Rural Appraisal (PRA) was the methodology for interacting with the mango growers and traders as well as villagers, understanding them and learning from them. It provided an alternative framework for data collection and analysis. Because of its participatory nature, it is a useful methodology to focus attention on people, their relationships with socio-economic and ecological factors.

Participatory Rural Appraisal is the way of enabling communities to define, evaluate and influence their economic, environmental, health and educational status. It is an intensive and systematic learning experience carried out in a community.

For effective interaction between the mango growers and researcher, an ice-breaking session for building rapport was held with the help of village leaders and progressive farmers. Ice-breaking is an equalizing exercise where both the farmers or local people and the outsiders come closer mentally that lead to creation of an environment wherein Participatory Learning Exercises as a means of doing PRA may be accomplished more conveniently.

A transect walk and bio-diversity walk was undertaken by this researcher to observe and record details of diversity of mango based agro-ecosystems. The transect walk exercise is a systematic walk along with source mango growers with folk wisdom and experience profile to observe topography, water regime, soil type, vegetation, enterprises, problems, solutions etc. of a given agro-ecosystem. To gain an understanding of the complexities of a situation, to get in-depth information about community participatory data generation process was adopted

Both material and non-material folklore items have been considered for the study. Participatory Rural Appraisal was the methodology for interacting with the farmers' folk, understanding them and learning from them. Observation based horticultural knowledge in the sector of agro-climate, soil, land preparation, sowing and planting of propagules, manuring, irrigation, intercultural operation, intercropping and harvesting etc was considered for the purpose. To explore the horticultural knowledge in the folklore items Content Analysis (Berelson, 1952) had been undertaken.

### III. OBSERVATIONS

#### 1. MANGOLORE, MANGO AS AN INGREDIENT OF FOLK MEDICINE AND FOLK VARIETIES

a) *A. Folk Literature*

b) *Riddle*

The riddle incorporates a question primarily and an answer secondarily. Some riddles on mango current in Gangetic West Bengal are listed \*:

\*All Bengali Scripts in this paper are written in IPA (Shaw, 1992)

1. I. mag<sup>h</sup>e Jðnom tar p<sup>h</sup>algune cae  
cotir bade tare kic<sup>h</sup>u kic<sup>h</sup>u k<sup>h</sup>ae  
k<sup>h</sup>ae tare boi<sup>h</sup>ak<sup>h</sup> ar Joi<sup>h</sup>e  
ei poi b<sup>h</sup>angaite pondit oi p<sup>h</sup>ate I

In this riddle the phenological cycle of fruit along with its maturity is briefly sketched by the folk-poet of rural Bengal.

2. The growth and development of fruit is also portrayed in another riddle:

I mag<sup>h</sup>e bol p<sup>h</sup>agune guti coitre katikuti  
boi<sup>h</sup>ak<sup>h</sup>e ati Joi<sup>h</sup>t<sup>h</sup>e cu<sup>h</sup>i I

The chronicle of fruit development is like this (Table 1.A).

**TABLE - 1.A:**  
**CHRONICLE OF FRUIT DEVELOPMENT IN GANGETIC WEST BENGAL**

Sl. No.	Bengali Month (As stood in Riddle)	English Months	Growth Stage
1.	mag <sup>h</sup>	Middle of January to Middle of February	bol (i.e. Panicle Emergence)
2.	p <sup>h</sup> agun	Middle of February to Middle of March	guti (Fruit Setting)
3.	coitra	Middle of March to Middle of April	katikuti (Marble Stage)
4.	boi <sup>h</sup> ak <sup>h</sup>	Middle of April to Middle of May	ati (Stone Formation Stage)
5.	Joi <sup>h</sup> t <sup>h</sup> a	Middle of May to Middle of June	cu <sup>h</sup> i (Ripening Stage)

3. I  $\Sigma$ totuku dale bo|tom dole I

Stylistically the bearing of mango in a shoot is a simile to the Lord Krishna in a rocking cradle.

4. Mango has a fleshy, fibrous or non-fibrous mesocarp along with coarse, long or short fibres covering the large flat stony endocarp. This fibre is analogous to the human hairs in folk stylistics.

I aka|fete d<sup>h</sup>ulumulu patalete le|

k $\delta$ n k<sup>h</sup>odae banai raik<sup>h</sup>e buk $\delta$ r b<sup>h</sup>itor ke| I

5. Red ants (*Oecophylla smaragdina* Fabr.) though not directly injurious, act as distributing agents of noxious scale insects (*Aspidiotus destructor* S.) and mealy bugs (*Drosicha mangiferae* Green) from tree to tree. In a riddle the morphology of a red ant is beautifully narrated.

I lalb $\delta$ ron c<sup>h</sup> $\delta$ e c $\delta$ ron pet katile hate  
murk<sup>h</sup>e ki b<sup>h</sup>angaiba ponditeri p<sup>h</sup>ate I

6. Mango fruit borer (*Deonolis albizonalis* Hampson) infests marble size of the fruit in the Gangetic West Bengal. The larvae feed within the fruit and makes tunnels inside and the infested fruits drop. The pupation may take place inside the fruits. The adults come out of the fruit through exit holes. In a riddle the food habit of the fruit borer is beautifully sketched.

I maer g $\delta$ rb<sup>h</sup>e t<sup>h</sup>akia maer man|o k<sup>h</sup>ae  
matite poria |e c<sup>h</sup> $\delta$ e pae Jae I

7. There is another riddle regarding inflorescence of mango which is also very famous in Gangetic West Bengal among the migrated people of Dhakha of the then East Pakistan (now the capital of Bangladesh). The riddle is as follows

I. tin  $\delta$ kk<sup>h</sup>ore nam tar am gace he  
prot<sup>h</sup>am  $\delta$ kk<sup>h</sup>or c<sup>h</sup>ere dile | $\delta$ rboloke k<sup>h</sup>ae I

Meaning: Word having three syllables, delete the first one and is accepted by all as edible one. The answer is 'Mukul' or inflorescence of mango. By deleting 'Mu', the new word is 'Kul' or Ber (*Zizyphus mauritiana* Lam.). Kul or ber is one of the most common fruit trees of India as well as Bengal and is grown all over the Gangetic West Bengal.

### Khanar Bachan

Nothing exact is known about the learned Bengali woman Khana, the author of 'Khanar Bachan' or the propositions of Khana. There are many proverbs current about the life of Khana. There is necessity of extensive research on the times of Khana, her identity, historical context, anthropological, linguistic analysis of Khana's sayings as also about the geographical, economical and social environment of those sayings. May be, Khana was not her actual name, but the sayings are ascribed to that name. According to hearsay, Khana was contemporary of Baraha Mihir, the most famous astrologer of ancient India. The sayings of Khana are composed in rhymes and language of which are very familiar with the people of Gangetic West Bengal and so these continue to be prevalent here through ages. Even today the life philosophy of rural Bengal is modelled after the sayings of Khana. One cannot deny the importance of 'Khanar Bachan' which are followed by the farmers of Gangetic West Bengal and thought to be rewarding for hundreds of years (Bandyopadhyay and Chakraborti, 2003).

Khana prescribed precisely how to cultivate mango and jackfruit. She prescribed the optimal planting distance, plant density, time of planting of grafted propagules. It is said by her that plant density should 30 ft apart from each tree. More density will give rise only vegetative growth, not the flower and fruits for want of Sunlight. She also advised the orchardist-folk to plant mango through vegetative propagation in the monsoon months.

I hat bi| kori p<sup>h</sup>ak am katal pute rak<sup>h</sup>  
gac<sup>h</sup> gac<sup>h</sup>ali g<sup>h</sup> $\delta$ no | $\delta$ be na gac<sup>h</sup> h $\delta$ be tar ph $\delta$ l h $\delta$ be na  
|onre mali boli tore k $\delta$ lom ro |aoner bare I

Khana advised to plant 'go' or arecanut (*Areca catechu* Linn.) and 'narikel' or coconut (*Cocos nucifera* Linn.) by giving a jerk. But she kept silent about jerking in respect of mango and jackfruit (*Artocarpus heterophyllus* L.). Contrary to this mango fruit will be smaller in size and jackfruit will be void without fleshy thalamus. The saying is partly true in case of palms but certainly there is no any scientific explanation with regards to the fact.

I go narikel nere po am tukure kat<sup>h</sup>le b<sup>h</sup>o I

I at car go am narae tuktuki kat<sup>h</sup>al narae b<sup>h</sup>o I

Hanumanthappa *et al.* (2000) pointed out that the common practice in majority of the coconut growing areas in Karnataka is to use good coconut seedlings (molake) aged between 9 to 12 months as planting material. But in the semi arid tracts of Karnataka, the coconut growers prefer older coconut seedlings of about three years old, commonly known as 'geppe', for planting in the main field. The steps involved in the production of coconut seedlings are same for both 'molake' and 'geppe' except for the secondary technique. It is presumed that when geppe seedlings are used for planting, their establishment will be good in the main field. These seedlings will come to bearing two years ahead of 'molake' seedlings. This might be true for the simple fact that the 'geppe' seedlings do complete two years of gestation period in the secondary nursery. Moreover, it may be opined that repeated plantings cause more jerking along with root damage. Hence new root formation occurs

which helps in good establishment in the main field. But in case of vegetatively propagated mango and jackfruit plants, graft unions may be dislocated due to jerking leading to mortality in the field. Now if scion sticks are died, branches may appear from the rootstocks which may yield inferior quality of mango.

In great saying of Khana, it is said that the production of mango is directly proportionate to production of paddy. She also said that there is a positive correlation in between the occurring of flood and the production of tamarind. (*Tamarindus indica* Linn.).

I ame d<sup>h</sup>an tetule ban I

Khana predicted that the never the fog, never decay of mango but not in case of palmyra palm and tamarind.

I J<sup>h</sup>to kua amer k<sup>h</sup>de tal tetuler kiba h<sup>h</sup>e I

Incidence of powdery mildew disease in mango is observed from 2<sup>nd</sup> week of February if there is a cloudy or foggy weather during the inflorescence stage of mango. A maximum temperature of 25.4<sup>o</sup>C to 31.9<sup>o</sup>C and a minimum of 14.6<sup>o</sup>C to 18.3<sup>o</sup>C having 86% relative humidity is the congenial factors for outbreak of this disease. A few hours rain followed by bright Sunlight with the above said factor found to be a factor for quick spread of this disease. The inflorescence of mango drops turning black in the presence of powdery mildew. Thus havoc is caused to the mango production. On the other hand, the flowers of palmyra palm (*Borassus flabellifer* Linn.) or tamarind (*Tamarindus indica* Linn.) are not affected in foggy weather condition. In one Bengali proverb it is stated clearly that the shower of p<sup>h</sup>agun (Feb-March) causes havoc to the mango panicles. Such havoc is also noticed in case of amra and simul (*Bombyx malabaricum*).

I am amra j<sup>h</sup>imul p<sup>h</sup>aguner J<sup>h</sup>le nirmul I.

Eminent Bengali writer and artist Abanindranath Tagore wrote in a rhyme that king fruit mango is encountered with many adversities but there is no malady to Babla (*Acacia arabica*) fruits in any time

I mod<sup>h</sup>u p<sup>h</sup>el amre d<sup>h</sup>Σk<sup>h</sup>o k<sup>h</sup>to p<sup>h</sup>re big<sup>h</sup>no  
bablar p<sup>h</sup>le nei konokale b<sup>h</sup>gno I.

## Proverbs

There is a Bengali proverb which reads as follows

I p<sup>h</sup>el<sup>h</sup>er modd<sup>h</sup>e am manu<sup>h</sup>er modd<sup>h</sup>e j<sup>h</sup>m  
kaporer modd<sup>h</sup>e j<sup>h</sup>ada narir modd<sup>h</sup>e rad<sup>h</sup>a I

That means mango among the fruits, Lord Krishna among the men is the best. And white colour of cloth and Radha (the lady-love of Lord Krishna) among the women is the best. When nature is endowed with superior quality juicy fruit like mango, then the pride of other fruits fades out and other fruits become tasteless. An endeavor has been made here to establish the fact that people prefer ripe mango to other fruits viz. pomegranate, jackfruit, coconut etc. In another Bengali proverb it is stated that the water of the Ganges is as holy as the mango.

I ph<sup>h</sup>el<sup>h</sup>er modd<sup>h</sup>e amrap<sup>h</sup>el J<sup>h</sup>aler modd<sup>h</sup>e g<sup>h</sup>nga J<sup>h</sup>el I

Hence, mango assumes a royal position in Bengali folk literature for its special features. Mango is regarded as the king of fruits. It satisfies the tongue of the people of Bengal during summer months. As bitter leafy vegetable like 'Gima' (*Polycarpon loeflingiae*) in the month of 'coitra' (March-April) and tender and sweet leaf of 'nalita' (*Corchorus fascicularis* Lamk.) in the month of 'boi<sup>h</sup>ak<sup>h</sup>' (April-May) assume an important item in Bengali menu chart, mango also takes a leading role in the month of 'Joi<sup>h</sup>t<sup>h</sup>a' (May – June).

I coite gime tita boi<sup>h</sup>ak<sup>h</sup>e nalita mit<sup>h</sup>a Joi<sup>h</sup>t<sup>h</sup>e omrito p<sup>h</sup>el I

There is a vast difference between am (mango) and amra (Indian hog plum) – *Spondias pinnata* (L.f.) Kurz. and jam (Indian Blackberry)– *Syzygium cumini* Skeels (Linn.) and jamrul (water apple) – *Syzygium samarangense* (Blume) Merrill and Perry although they belong to same botanical family Anacardiaceae and Myrtaceae respectively.

I amrae ar ame Jamrule ar Jame I

That means people compare between mangos and hog plum; black berry and water apple. It proves that inspite of phonetic similarities amra tree does not bear mango and amra tree bears amra and mango tree mango only. We know that taste of milk is not present in butter milk. When mango season disappears people make a fruitless effort to satisfy the taste of mango with other fruits available. People suck amra when mango is absent. We are compelled to consume ordinary fruits in the absence of real one.

Not only has the human being waited for the ripe mango but also avices. There is a proverb \_ I am porbe bata<sup>h</sup>e k<sup>h</sup>oa roilo protta<sup>h</sup>e I which means crow waits for mango dropping. In the month of Joi<sup>h</sup>t<sup>h</sup>a (May-June), one of the ingredients of the crow's menu is mango. When mango starts ripening by one or two, birds can understand it and they start pricking the fruit, the orchardist can also realise it, colloquially it goes like that the crows prick ripe mango. When mango ripens, it takes bright colour. The birds are attracted by the deep red colour of mango. Proverb goes as that there is ripe mango to the beak of crow –

I paka am dek<sup>h</sup>lei kake t<sup>h</sup>okrae I  
I kaker muk<sup>h</sup>e jindure am I

Both green and ripe mango assumes as important item in the food habit of animals as well as birds. Mango season lasts for almost four to five months starting from inflorescence to ripening stage. There after a scarcity of food for the animals and birds appears. There is a beautiful proverb –

I p<sup>h</sup>urolo baganer am ki k<sup>h</sup>abire hanuman I

There is a proverb in Bengali folk literature regarding the place of production of mango. Burdwan (Bardhaman) district of West Bengal is famous for mango, amra and paddy.

I am amra kuJra d<sup>h</sup>an ei tin nie b<sup>h</sup>rd<sup>h</sup>oman I

But we know that mango is mainly produced in Malda and Murshidabad districts in Gangetic West Bengal. Most probably once upon a time Burdwan was the leading mango growing region of Bengal. Afterwards Nawabs (Rulers) of the then Bengal had a great patronage for mango production at Murshidabad and Malda. That truth lies in this proverb as a ‘missing link’.

A good variety of mango will be sweet, less acidic, fibreless, large and pulpy. Acidic and less content of pulp are not accepted by the folk people in the process of selection. It is conspicuous in a humourous style of a folk saying:

I t<sup>h</sup>ok tefo atifara [d<sup>h</sup>o]funno b<sup>h</sup>und<sup>h</sup>ara ei am bilabar d<sup>h</sup>ara I

A mango of good variety is very tasty. Such mango plants are propagated by grafting. Although we can see mango trees developed from seed. Seed propagated plants are not true to the type of mother plants. Often the fruits of seedling germplasm are acidic in nature and stone: pulp and peel: pulp ratios are much higher. It is a headache to the fruit breeder because they are always trying to develop hybrid mango, having higher pulp: stone ratio. ‘We must think of pulp of mango not invites the stone.’ Hybrid mango Sindhu is an example. There is a simile in folk saying:

I am k<sup>h</sup>aoa nie k<sup>h</sup>at<sup>h</sup>e ati nie ki mat<sup>h</sup>a b<sup>h</sup>st<sup>h</sup>a I

The pulp of mango is liked by all, not the hard stone. The stone is generally thrown in garbage. That is why, it is clearly stated in a Bengali proverb that mango and milk are mixed whereas seed is placed in the garbage. Both mango pulp and milk is very palatable and nutritious. When juice of mango is extracted and mixed with milk, the seed portion placed on the heaps of garbage. Suitable thing is mixed with another suitable thing, unwanted one left out.

I ame dud<sup>h</sup>e Σk h<sup>h</sup>de adarer ati adare Jae I

Mango trees start inflorescence with the advent of spring. A meagre portion of it turns into fruit. Ultimately a very small portion of it bears as mango. So a small part of the inflorescence may give rise to a bumper production. So it is colloqually stated that one sixteenth of mango is equal to the one sixteenth of fish in respect of production in plant and pond respectively.

I amer ana mac<sup>h</sup>er kona I

Mango fruits and its inflorescence are affected by different insect-pests, disease organisms and adverse weather conditions. Ripe mangoes are to be attacked by fruit fly and other harmful insects. So it is clearly said in a proverb that ripe mangoes are affected by insects.

I mi|ti ame poka d<sup>h</sup>ore I I paka ame poka I

These pests either may be fruit fly (*Bactrocera dorsalis* Hendel.) in April to July or red-banded caterpillar (*Deonalis albizonalis* Hampson) in March to May.

### Folk tale

We know woman becomes pregnant by consuming mango as stated in folk tales of Jangal Mahal of Jharkhand state of eastern India as well as western frontier districts of West Bengal. Mango, mango leaf and other parts of mango have a reference to the folk tales of Bengal. Mango is related to fertility cult of Bengal because of its profuse flowering and fruiting habit (Chakraborti, 2004). The tribes of Bengal used to use mango plant and fruit in different social customs and rituals. Bride is married to mango tree before the actual marriage with a groom. It is a custom to chew tender mango leaf before going to marriage by a bride groom. This occasion is called ‘amla khawa’. It is stated in ‘Karali’ folk tale of Jangal Mahal that a mango is symbol of masculinity. This culture is taken from the aboriginal society and it is prevailed even in old alluvial zone of Gangetic West Bengal.

### Folk Song and Folk Drama

1. Changu song: Changu song is related to changu dance which is displayed along with Paik dance, a folk dance based on intensive body language. Changu song is sung by transformed fishermen in agriculture with folk instruments. Fresh mango and mango-fish are mentioned in a Changu song.

I boi|ak<sup>h</sup>ete k<sup>h</sup>ira mit<sup>h</sup>a |a|Joni |ol mac<sup>h</sup>e am Joi|t<sup>h</sup>ete paka am a|fare kat<sup>h</sup>al I

2. Wawaiya Song: Wawaiya song is sang by Rajbanshi tribe of Cooch Behar, Jalpaiguri, Siliguri sub division of Darjeeling, Uttar Dinajpur of West Bengal; Rangpur, Dinajpur of Bangladesh and Goal para and Dhubri of Assam. In a folk song of

Wawaiya, reference of sweet mango is there –

I J<sup>h</sup>i|t<sup>h</sup>o ma|e mi|to p<sup>h</sup>ol a|far ma|e noea J<sup>h</sup>ol re I

Which means mango is available in the month of Jōi<sup>h</sup>o (May-June) and new shower of monsoon comes in the month of a<sup>h</sup>ar (June-July).

3. Gambhira: Gambhira is a song-based and ritual (related to Lord ‘Shiva’) folk drama performed in Malda especially in the month of coitra (March-April). There is a Gambhira song related to the antiquity of mango where Sri Lanka is considered as the centre of origin. Dhak, a folk musical instrument, is prepared from the trunk of mango.

I lōnka galo honuman k<sup>h</sup>ae amrop<sup>h</sup>el  
mōrte p<sup>h</sup>elilo ati taite hoilo brikh<sup>h</sup>o dōmoraboti  
age bahraia onkur tar pace bahrae gac<sup>h</sup>  
c<sup>h</sup>oe c<sup>h</sup>oe ma<sup>h</sup>e bahrae dadof<sup>h</sup> hat  
agal gora kati tar modd<sup>h</sup>ok<sup>h</sup>an nile  
cacia c<sup>h</sup>ilia d<sup>h</sup>ak nirman korile  
kamar goria dilo lohar kori  
muciram paia dilo kopilar dori  
f<sup>h</sup>ib f<sup>h</sup>ib bolia d<sup>h</sup>ake dilo g<sup>h</sup>a  
mora camra karilek bialli<sup>h</sup> ra  
f<sup>h</sup>ibnat<sup>h</sup> ki mōhe<sup>h</sup> I

Mango bears ‘fat’ and ‘lean’ crops in alternate years. When mango produces heavy crop, the cropping season is called the ‘on’ year (Jilan bōc<sup>h</sup>or). When it produces a poor or lean crop, the season is termed as ‘off’ year (ōp<sup>h</sup>ōla bōc<sup>h</sup>or). During the fruiting season, an estimated proportion of 25 per cent of the total population in the leading mango growing districts are engaged in various activities like watching, plucking, carting, basket-making, packing-cum-loading, transporting whole selling, selling on commission, processing etc and keep up their subsistence by means of this crop directly or indirectly (Jha and Sarkar, 1991). Therefore, off year creates a great problem to the folk people. This miserable situation is depicted in a Gambhira song.

I bolbo ki gan ohe f<sup>h</sup>ib bagane nai am  
gace gace beria dek<sup>h</sup>i nutōn pata f<sup>h</sup>ab f<sup>h</sup>oman  
mone mone b<sup>h</sup>abci bo<sup>h</sup>e kajer kono paina di<sup>h</sup>a I

In a Gambhira song, the diversities in the folk varieties of mango are uttered by a merchant addressing to a buyer in a market.

I maldōher am leben go babu  
maldōher am k<sup>h</sup>ir<sup>h</sup>adud<sup>h</sup>i hir<sup>h</sup>a  
leben dek<sup>h</sup>a f<sup>h</sup>una cak<sup>h</sup>a cuk<sup>h</sup>a  
badek dibek dam f<sup>h</sup>ouloucukka badamb<sup>h</sup>og  
k<sup>h</sup>ir<sup>h</sup>apati mohonb<sup>h</sup>og  
gopalb<sup>h</sup>og k<sup>h</sup>irmohon  
mohonb<sup>h</sup>og f<sup>h</sup>itab<sup>h</sup>og b<sup>h</sup>agnacu<sup>h</sup>a atipu<sup>h</sup>a  
mohonmoti g<sup>h</sup>i kancon  
begōmbahar dud<sup>h</sup>kumar  
motij<sup>h</sup>ura kumrajali mod<sup>h</sup>ucu<sup>h</sup>oki b<sup>h</sup>adra a<sup>h</sup>na  
motikancon nōbabpo<sup>h</sup>in  
f<sup>h</sup>a<sup>h</sup>uri b<sup>h</sup>ulano nakp<sup>h</sup>uli  
b<sup>h</sup>a<sup>h</sup>ur po<sup>h</sup>in deora cak<sup>h</sup>a  
totamuk<sup>h</sup>i gutitor<sup>h</sup>a kapuria amropali  
cirab<sup>h</sup>iJa cinicampa f<sup>h</sup>ōbar f<sup>h</sup>era raja  
b<sup>h</sup>inki ki<sup>h</sup>anb<sup>h</sup>og p<sup>h</sup>oJli f<sup>h</sup>urma p<sup>h</sup>oJli I

hil<sup>h</sup>apeti badurk<sup>h</sup>auki  
raik<sup>h</sup>auki congahukka  
golapjam baromaf<sup>h</sup>a  
canrab<sup>h</sup>ulan f<sup>h</sup>ōjnagac<sup>h</sup>i  
kat<sup>h</sup>alcapa b<sup>h</sup>ōnb<sup>h</sup>ōna mac<sup>h</sup>I  
j<sup>h</sup>uri j<sup>h</sup>uri f<sup>h</sup>idur kōdma  
kaluadagi gid<sup>h</sup>nihaga  
nakua golap bag<sup>h</sup>na  
bōsonto kha<sup>h</sup> ramd<sup>h</sup>onia

In another song the diversities in mango are like this

I f<sup>h</sup>ibo he .....  
amra am anac<sup>h</sup>i J<sup>h</sup>aka b<sup>h</sup>ōra  
kōto rōkom ac<sup>h</sup>e am  
nam bolbo karra  
k<sup>h</sup>ir<sup>h</sup>apati lanra p<sup>h</sup>oJli gopalb<sup>h</sup>og  
arajōnma Jaliaband<sup>h</sup>a tikiapori lōkk<sup>h</sup>onb<sup>h</sup>og

a||ina Juraia kanconka|a dud<sup>h</sup>ia  
 anac<sup>h</sup>i aJ akta |ug<sup>o</sup>nd<sup>h</sup>o korpura  
 altapeti rak<sup>h</sup>alb<sup>h</sup>og |uroma ulotk<sup>o</sup>mol  
 kacamit<sup>h</sup>a pearap<sup>h</sup>uli moh<sup>o</sup>nb<sup>h</sup>og dud<sup>h</sup>k<sup>o</sup>mol ..... I

4. Alkap song: Alkap is a song-based popular folk drama of Murshidabad and the neighbouring districts performed by farmers-folk. In an Alkap song the diversities in mango are mentioned along with their place of production –

I c<sup>o</sup>lo Jai ambagane  
 k<sup>o</sup>to r<sup>o</sup>kom am d<sup>h</sup>orec<sup>h</sup>e  
 amrobit<sup>h</sup>i bone a||ina |<sup>o</sup>p<sup>h</sup>eda |antibhog  
 coud<sup>h</sup>uri bagane p<sup>h</sup>oJli am  
 m<sup>o</sup>han<sup>o</sup>ndar d<sup>h</sup>are kan|at gele |<sup>o</sup>ta pabo  
 gohilbari<sup>h</sup>at par hoile  
 |amne Jodupure mollikpure c<sup>o</sup>lo Jai  
 m<sup>o</sup>haraJpure mi<sup>o</sup>bagan  
 paoa Jabe gopalb<sup>h</sup>og am  
 ebar b<sup>o</sup>robagan c<sup>o</sup>lo  
 |ek<sup>h</sup>ane k<sup>h</sup>iro||<sup>o</sup> am b<sup>h</sup>alo

nanan Jater guti ac<sup>h</sup>e kancont<sup>o</sup>la amer mat<sup>h</sup>e  
 haJir baganer pic<sup>h</sup>e |a|ta amer da| da|a  
 c<sup>o</sup>lo Jai |urma p<sup>h</sup>oJli kini  
 babur bagane brindaboni  
 kalibhog ar mohonb<sup>h</sup>og  
 m<sup>o</sup>he|purer |itabhog k<sup>o</sup>torokomer am d<sup>h</sup>orec<sup>h</sup>e  
 g<sup>h</sup>ug<sup>h</sup>udimi kai<sup>o</sup>dimiamrobit<sup>h</sup>i bone  
 gobort<sup>o</sup>lae mohini c<sup>o</sup>lo Jai am bagane  
 nanra k<sup>h</sup>alipar bagane

acar b<sup>h</sup>alo dil|ad ame  
 mod<sup>h</sup>ucu|ki manik g<sup>o</sup>nga  
 bombai k<sup>h</sup>ir|a ar rad<sup>h</sup>abhog  
 kumra Jaliram kinte pabo  
 raJb<sup>h</sup>og am paea Jae  
 rani bila|i am b<sup>h</sup>alo  
 r<sup>o</sup>honpur trene c<sup>o</sup>lo  
 |ek<sup>h</sup>ane m<sup>o</sup>kor<sup>o</sup>mpur g<sup>h</sup>ate

eibar c<sup>o</sup>lo mona ko|a  
 |ek<sup>h</sup>ane am r<sup>o</sup>komari  
 n<sup>o</sup>babg<sup>o</sup>nger amro|undori

## B. Flowering in Mango and Folk Knowledge

Flowering in mango is a complex phenomenon, which embraces several biotic and abiotic factors. Despite the failures in understanding the physiology of mango flowering, some aspects which promote and which hinder or prevent flowering in mango are pointed out by the folk people of Gangetic West Bengal although their physiological and biochemical roles are not fully understood and clear.

It is a common folk observation that the eastern side of mango tree flowers a few days earlier than other sides. The simple reason is that eastern side receives sun light for longer hours. It is also observed that top most portion of the tree (p<sup>h</sup>ulani) flowers earlier.

The merchant-folk generally purchase the garden observing the inflorescence in the northern side. The scientific basis is that lower percentage of hermaphrodite flowers is reported in the eastern side of the tree, which often gets more sunlight. Higher percentage of hermaphrodite flowers was observed on the northern side, which gets less sun light.

The importance of flowering in the inner portion is more in commercial point of view not only because of higher percentage of perfect flowers but also fewer prunes to external hazard like hailstorms. Leafy panicle [pata mukul] may not be beneficial if leafy growth is higher than reproductive growth in a particular shoot.

The merchant-folk believe that medium sized panicle is more fruitful than lengthy panicle. According to their opinion, fruits bear in middling panicles are persistent in nature and less prone to premature drops.

The mango produces blossoms mostly from terminal shoot buds, rarely from axillary buds (doJi mukul) particularly in cultivar Fazli when weather is favourable. ‘DoJi mukul’ bears moderate crop.



In Malda early panicle producing in the month of February is called 'birbag' which yields a good crop. There are three types of panicles based on their time of initiation viz. (i) birbag (Early), (ii) maJhari (Medium) and (iii) namla (Late)

In Malda which experience a sharp winter, flowering continues in two or three distinct flushes for a period of 6-8 weeks on different branches of the tree and it continues upto the end of February. A few proverbs tell like this:

I p<sup>h</sup>aguner at Ja p<sup>h</sup>utbi p<sup>h</sup>ute p<sup>h</sup>at na p<sup>h</sup>utle [amo]t̪ kat I.

I coiter at tarpar [ab kat I.

The bearing can be assured by observing the leaf colour, texture and age. Well shaped, healthy, deep green and glossy leaves I cik̪n̪ pata I indicate heavy crop. There are about three flushes of foliage growth after [rab̪n̪ (July-August) particularly in the variety Langra. According to the opinion of the merchant, cessation of the growth in [rab̪n̪ seem to be conducting to regular bearing as the vegetative flush requires at least 6 months maturity (g̪rb̪<sup>h</sup>̪).

Erratic rainfall leads to instability in mango production. This knowledge is preserved in a common saying: I p<sup>h</sup>aguner Jol agun I.

Rain or cloudy weather adversely affects the setting of fruits in the months when the tree flowers.

### C. Other ITKs

An ITK or Indigenous Technical Knowledge is the wealth of a particular folk and any individual does not claim the credit. This traditional wisdom may cover wide range of subjects. Orchard management is not the exception. Some ITKs pertaining to mango is elucidated:

1. 10 g of bruised Garlic (*Allium sativum* L.) put together with 1 lit of water has been found to be a competent managing capacity resisting powdery mildew (*Oidium mangiferae* Berthet) disease of mango.
2. Periodically cleansed with fish washings in the trunk of mango trees pushed back trunk borer infestation. Fish washings may allure predators and parasites and hence thrusts back borers.
3. Pitcher irrigation in mango orchard saved up to 75% of valuable water without endangering the crop yield in the rain fed agriculture.
4. Farmers-folk set up turmeric based intercropping in mango agro-ecosystem on variety Himsagar in Murshidabad. This design measured insurance against off year production. The secondary crop yield may be increased by use of high yielding genotypes, high-density crop geometry and providing balanced nutrition.
5. Milk spray is put on in the canopy for 2-3 times just before and after the panicle emergence. Milk casein may magnetize some predators and parasites.

### D. Vocabulary

A brief list of vocabulary pertaining to mango industry in Malda is given hereunder (Table - 1.B).

**TABLE – 1.B:**  
**FOLK VOCABULARY PERTAINING TO MANGO INDUSTRY**

Sl. No.	Vocabulary	Meaning
1.	d̪k̪ <sup>h</sup> na	Hot strong southern wind in the summer months with temperature ranging from 46 <sup>o</sup> to 50 <sup>o</sup> C which causes sunburn to the flower and fruit
2.	Jilan b̪c̪ <sup>h</sup> or	On year of production
3.	̪p̪ <sup>h</sup> ̪la b̪c̪ <sup>h</sup> or	Off year of production
4.	Jor laga	Grafting (vide Plate – A.4)
5.	t̪ <sup>h</sup> al	Scion stick
6.	birbag	February Inflorescence
7.	namla mukul	March flowering
8.	doJi mukul	Axillary bud

9.	cikôn pata	Physiologically matured leaf ready for flowering
10.	pala pôra	Snow fall
11.	mu'aria	Lentil size fruit
12.	golmoric	Pea nut size fruit
13.	tikoli	Larger than marble size fruit
14.	mod <sup>h</sup> u laga	Sooty mould ( <i>Capnodium mangiferae</i> ) infection
15.	mod <sup>h</sup> u poka	Mango hopper <i>Idioscopus niveosparus</i> (Leth)
16.	dhoa poka	Black tips due to the effect of brick fields
17.	tikia para	Anthraxnose disease by <i>Colletotrichum gloeosporioides</i> (Penz.) Sacc
18.	ġuli poka	Fruit borer <i>Deonalis albizonalis</i> Hampson
19.	t <sup>h</sup> uġi	Pole harvester
20.	k <sup>h</sup> ungi	Bamboo basket for harvesting
21.	kat	Small and low graded, rejected mango
22.	kôrma	Small size fruit but greater than 'kat'
23.	mamuri	Hidden or concealed mango
24.	p <sup>h</sup> ulani	Top position of the tree
25.	k <sup>h</sup> aca	Stacked dry leaves for fuel purpose (vide Plate – A.3); dry twigs for fuel is 'lôkri' (vide Plate – A.2)
26.	d <sup>n</sup> ona	Cattle protector
27.	kuria	Hut like structure for watching
28.	macana	Raised bamboo platform for watching
29.	diet	Turmite or white ant
30.	upra	Evil spirit believed to be dwelled in mango tree
31.	at <sup>h</sup> a j <sup>h</sup> ôra	Stem bleeding
32.	ab or kana	Trunk gall in mango tree
33.	lôg	Trunk of mango tree
34.	Jônli	Ephiphytic weeds
35.	bana	An ephiphytic weed <i>Loranthus Dendrophthoe falcata</i> (L.f.) Etting; Family- Loranthaceae
36.	patta	Mango Leaf
37.	maoul	Mango Panicle
38.	pôllo	Mango Shoot
39.	bor	Mango fruit pulp
40.	cokka	Peel of the mango fruit
41.	gutt <sup>h</sup> i	Stone of the mango fruit
42.	kara	Young seedling of mango
43.	pait	Labour in mango orchard
44.	pata mukul	Leafy panicle in mango
45.	paikar	Middle men in marketing channel
46.	p <sup>h</sup> ore	Middle men in marketing channel
47.	arotdar	Middle men in marketing channel
48.	barial	Middle men in marketing channel

Contd...

**E. Folk Harvester :** The full grown fruits are very attentively harvested singly without blemishing and contusing by means of folk harvester 'tusi' or 'logi' made up of bamboo pole and cottony net-bag cured by gab or Indian Persimmon (*Diospyros*)

*peregrina* Gaertn.) juice. The fruit after being teared off by the attached iron blades come down the net bag. 3 to 5 fruits are likely picked in the net bag. The pole harvester is then let down and the materials of the net vacated into a sac (made from fishermen net) which is clinged to the lower branches. This sac is adequate of holding 200 to 300 fruits. When the sac becomes filled, it is taken down to the ground. The fruit are then mounded below the tree for the moment on a substratum of green mango leaves.

#### F. Folk Foods

Besides gobbled as dessert as well as green, mango can be cured throughout the year by processing into different products in domicile and cottage industry. Some of the preserved folk foods are briefed hereunder.

1. Chuna or 'coitra kārḍli' – Small green mangoes are cut and dried in the sun in the month of coitra (March-April) to make the product 'phali' which is preserved and used for the problem of stomach and also used for making sour curry and pickles. The drying tray is made of slightly elevated wooden or bamboo strips and fitted to wooden frames.
2. Amchur – This is a powder of dried mango slices (amḥi) and stored into dry bottles. Under-ripe green mango is peeled, de-stoned, sliced and dipped in 2% salt solution before sun drying. By crushing the dried mango, a powdery, substance is obtained. This product is added to various preparations to provide sourness. The name of amḥi has found place in Bengali proverbs and rhymes:

I am phurole amḥi khabe I I am ḥukie amḥi Jḍl ḥukie pak I

Meaning: You will take dried mango when mango will not be available.

I am ḥukno amḥi bḍeḥ gele kadte bḍḥi I.

Meaning: Dried mangoes are called amḥi. Interest for mangoes are lessened when amḥi is prepared by drying green mango. Likewise folk people don't prefer an aged woman when her sexy stage is over.

3. Amshatta (amḥḍtto) – This is a kind of mango leather and is the best sweet meat available in the market. The ripe mango pulp is sun dried on 'pḍckori', a bamboo made plate, in the form of strata made by their pouring in several layers, each stratum laid down and dried before another stratum is stood (Plate – A.1). The pulp can also be blanched, sweetened (added 5% sugar) and stretched thin on the mat and dried. Folk variety Tikiapari, Ganga Prasad and commercial variety Gopal Bhog are the best suited for amḥḍtto making. The name of amḥḍtto is found placed in a Bengali proverb where meaning is that as it is too late to get the ripe one, so the question of mango leather does not arise : I am na hote amḥḍtto I.
4. Aam-tel (Mango-oil) – Green mango is cut lengthwise into four pieces, stone is removed and the pieces are dipped into brine solution. After draining of water, turmeric is added and dried in the sun for 4 days. Fried and grind spices are added to it and put into a glass jar. The jar is exposed to Sun till it is considered to be ready. Ingredients are like this: Green mango – 1 kg, Mustard oil – 500 g, five spices – 55 g, Salt – q.s., Turmeric powder – q.s., Dry chilli – 5.
5. Achar and Chutney – Achar is a sour and chutney is a sweet pickle. Achar is prepared with or without skin but chutney is prepared from peeled mango strips. The Ingredients are like these:

Chutney		Achar	
Ingredients	Quantity	Ingredients	Quantity
1. Mango Strips	1 kg	1. Mango Slices	1 kg
2. Sugar	1 kg	2. Turmeric Powder	35 g
3. Ginger	35 g	3. Fenugreek	35 g
4. Chopped Onion	25 g	4. Red Chilli	35 g
5. Chopped Garlic	35 g	5. Mustard Oil	25 g
6. Chilli	15 g	6. Salt	220 g
7. Salt	50 g		

In achar, spices are mixed with oil and added to the mango slices. The mixture is put inside an earthen pot or glass jar and is bared to the Sun. In chutney, slices are blanched, sugar-salt are added and boiled. The spices are added at last and thickened the syrup. The preparation is poured into wide-mouthed glass jar and capped. Immature fruits of seedling varieties are singled out for the preparation of chutney. The folk variety Aswina is the best for this purpose. The recipe of other folk

foods is described here under in a table (Table - 1.C).

**TABLE - 1.C**  
**RECIPE OF SOME MANGO BASED FOLK FOODS PREPARED IN GANGETIC WEST BENGAL.**

<b>Folk Food</b>	<b>Ingredients</b>	<b>Quantity</b>
1. Kasundi	Green mango Mustard Seed Dry Chilli Mustard Oil	1 kg 300 g 20 Number 2 t.s.f.
2. Aam-dal ('Mango pulse-porridge', a cooked item)	Lentil Green Mango Turmeric Powder Salt Mustard Dry Chilli Mustard Oil	3 cups 2 Nos. 2 t.s.f. q.s. 1 t.s.f. 2 Nos. 5 t.s.f.
3. Aam-tak ('Mango-sour', a cooked item)	Green Mango Fish Piece Turmeric Powder Mustard Seed Salt	2 Nos. 10 Nos. 1 t.s.f. 2 t.s.f. q.s.

### G. Folk Medicine

Folk medicines are discovered, practiced, used and cultivated by the folk. Folk medicine is a traditional medicinal system and is still living and not dying under the impact of modern scientific innovations. This traditional system is otherwise termed as 'alternative medicinal system' by the physicians (Chitraporchelvam, 2002). The folk medicines are mostly applied by rural people in general and tribal people in particular. The educated people who have faith in them are also using it. It is still considered as one of the best medicines in India even though the scientific medicines are developed, because the folk medicinal practices are very easy to handle and are useful to learn the remedies in simple way (Geetha, 1987). Like Ayurveda, folk medicine also gives equal importance to preventive measures as well as curative measures. But in folk medicine these prescriptions are covered in the name of rituals and rites. Many taboos are ordaining what not to do and what to do, what not to eat and what to eat during certain periods and occasions pertaining to medical advice.

Ripe fruit of mango is revitalizing, energizing, fattening, diuretic and laxative. A drink made from burnt and sweetened pulp of green fruits is burnt and sweetened pulp of green fruits is the most enlivening in the hot dry weather in Gangetic West Bengal. Each and every portion of mango is promising, rewarding and propitious and has been employed in folk remedies in some procedure or another. The gist uses are as follows: anti-viral, anti-parasitic, anti-septic, anti tussive, anti-asthmatic, expectorant, cardiogenic, contraceptive, aphrodisiac, hypotensive, laxative, stomachic etc. It is worth mentioning that the folk people of Gangetic West Bengal don't take water after having consumed mango for health ground. We get statutory warning having an advice in a proverb:

I am kheyē khāe pani pod bōle ami na Jani  
I interpreted in Table - 1.D.

I A brief list of folk medicines in the Gangetic West Bengal is

**TABLE - 1.D**  
**LIST OF FOLK MEDICINES IN GANGETIC WEST BENGAL**

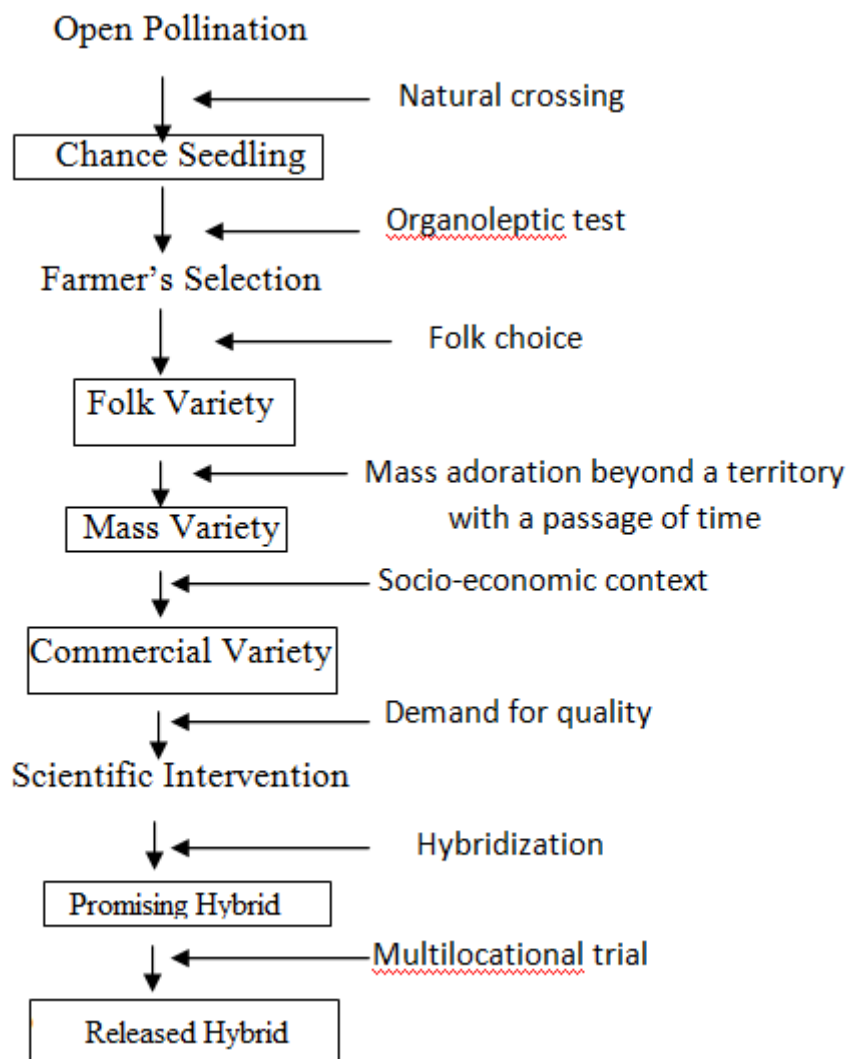
Sl No.	Name of the Disease	Plant Parts Used	Other Ingredients Used	Mode of Use	Remarks
1.	Dysentery	Bark @ 25 g	Cumin @ 10 g	Swallowing of paste mixture in marble size once daily for 3 days.	Source: <u>Bhola Rajak, Malda</u>
2.	Eyelid-Stye I anJoni/gu-giJni I	Latex of young leaf	Nil	Applying in the eyelid directly.	Source: <u>Bishnupada Choudhury, Malda</u>
3.	Teeth pain and Scurvy	Bark	Nil	Applying bark paste in the base of teeth.	Source: <u>Soniardha, Malda</u>
4.	Stomachache Disorder	Bark	Nil	Paste	<u>Kanchamitha</u> genotype is the best. A tribal medicine used by <u>Paharia</u> in <u>Malda</u>
5.	Jaundice I kamla/nΣba I	Bark	Oyster Lime	Kneading of bark along with lime within the hand 2 to 3 times a day for 5 to 7 days.	Source: <u>Radha Gobinda Ghosh, Malda</u>
6.	Pregnancy	Bark	i) <u>Mimosa pudia</u> – bark, ii) <u>Acacia arabia</u> – bark, iii) <u>Diospyros peregrina Gaertn.</u> - bark, iv) <u>Aegle marmelos</u> Correa. – bark, v) <u>Nata (Lata karanja)</u> fruit, vi) <u>Bankarabi</u> , vii) <u>Ginger juice</u> viii) <u>Molasses</u> ix) <u>Mustard oil</u> x) <u>Rice or wheat flour</u>	Taking clear solution of boiled bark of (i) to (vi), mixing (vii) to (x) and using twice daily for 5 to 7 days.	Source: <u>Radha Gobinda Ghosh, Malda</u>
7.	Sun Stroke	Green mango	Sugar and water	Cooking in hot ashes and mixing with sugar and water.	Source: <u>Lokenath Kumar, Malda</u>

## H. Folk varieties

In Gangetic West Bengal hundred selected mono embryonic varieties have been evolved as chance seedlings as a result of open pollination, out of these only a few are commercially important and more than 95 per cent of the mango area is under those commercial varieties. The rest may be termed as folk varieties as those are closely related to culture and heritage of folk people in confined locations and are revealed in oral folk literature in those particular areas like Gombhira, Alkap folk dramas.

It is now common practices that orchardist-folk sells their orchards to the merchant-folk for a specific period of time. The folk varieties as defined are kept for their own consumption. The industrialists have developed recently new orchards with commercial varieties. They are engaged in large-scale production through scientific intervention. They have least interest in folk varieties and more frequently than not they avail the opportunity of felling those. So there is a transformation in the composition and character of folk in mango industry. The traditional orchardist - folk have their own traditional knowledge base and that agriculture is essentially a farming stage instead of industrial stage.

In this treatise it is proposed that folk varieties may be defined as the genotypes of an indigenous crop grown by a traditional farmer-folk in subsistence level of farming equipped with age old knowledge within a given territory over a period of time after natural evolution and selection. Therefore, folk variety is closely related to culture and heritage of folk. In this context a schematic diagram is given hereunder to depict the evolution of mango germplasm.



### Example of Folk Variety

Khair Mohan, Dilsaj, Brindabani, Dhudhia, Lohajang, Dudh Kumor, Kua Pahara, Arajana, Michhri Kon, Mohan Bhog, Lamba Bhadura, Gooti Sindura, Jali Bandha, Sita Bhog, Khirsapati, Sobja, Ruhi Munda, Kala Pahar, Funia, Chini Champa, Rakhal

Bhog, Amrit Bhog, Kohitur, Baromasi, Nawab Pasin etc.

#### **Example of Mass Variety**

Biswanath Mukherjee, Biswanath Chatterjee, Lakshman Bhog, Aswina, Piarafully, Rani Pasand, Sorikhas, Gopal Bhog, Gulabkhas, Safdar Pasand etc.

#### **Example of Commercial Variety**

Dashehari, Langra, Fazli, Chousa, Baneshan, Bangalora, Mulgoa, Alphonso, Vanraj, Bombai, Bombay Green, Himsagar, Neelum, Suvarnrekha, Kesar, Mankurad, Fernandin, Zardalu, Kishan Bhog etc.

#### **Example of Promising Hybrid**

Arka Anmol, Arka Punit, Arka Neelkiran Arka Aruna, Neelphonso, Neeleswari, Neeleshan Gujarat, Alfazli, Sunder Langra, Manjeera, Sindhu, Pusa Arunima etc.

#### **Example of Released Hybrid**

Swarna Jehangir, Ratna, Au Rumani, Mallika, Prabha Sankar, Mahmud Bahar, Neelgoa, Neeleshan, Neeluddin, Amrapali etc.

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