



Photo:KPP

# A mango competition

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**Diversity is the law of nature. India is extremely rich in bio-cultural diversity. In this article the farmer's organisation Krishi Prayoga Pariwara (KPP) describes some of their recent activities. They work in Sagar, an area in the Shimoga district of Karnataka State in Southern India. One of their major goals is linking organic agriculture and health with the local environment.**

Traditional Indian food is highly diversified; an ordinary lunch consists of many vegetables, grains and herbs. There are wide varieties of dishes and any one particular dish can be prepared in many different ways. KPP is interested in the relationship between the preparation of local dishes, human health and agriculture.

In 1998 KPP invited schoolchildren to ask their mothers and grandmothers for recipes for *tambli*, a traditional dish in which many local herbs are used. Some 160 different recipes were found! KPP listed the different types of *tambli*, described how they were prepared and recorded their ayurvedic background. It turned out that some 130 plant species are used in the preparation of the different *tambli*s. The parts used vary from tender leaves to flowers, fruits, seeds, bark and roots.

## The area and the people

The Shimoga district is situated in Karnataka in the Western Ghats, where the flora and fauna are rich and diverse. The main crops are the arecanut, paddy and coconut. There are medicinal herbs, shrubs, trees, vines and fruit yielding trees, like mango and jack. The areca gardens are maintained on *soppinabetta* land, a forest area where the leaves are used to fertilise the gardens. However, deforestation and the use of *soppinabetta* for commercial purposes are threatening

this traditional system. Moreover the *go-malas*, or communal grazing areas, are slowly disappearing. Some organisations like KPP are working towards restoring the ecological balance of the area.

Each of the four major communities in the district has its own customs, beliefs, norms and values. However, all of them observe Hindu festivals such as *Ganesh Chaturthi*, *Dashera*, *Yugadi* and *Bhoomi Hunnime* and use nature's diversity in different rituals. Knowledge of natural diversity is important in weather prediction, crop production, pest control, natural fertilisation and food preparation. The people of Sagar respect bio-diversity and Mother Nature. Trees like *Ficus religiosa*, *Neem*, *Phyllanthus embellica*, *Feicus glomerata*, *Butea monosperma*, *Jack (Atrocarpus)*, *Mango (Mangifera indica)*, *Ashoka (Saraca ashoka)* and *Bilwa (Aegle marmelos)* are used in religious ceremonies. They are considered sacred and are worshipped.

## Tender mango pickle

Pickle is an indispensable side-dish in traditional Indian food. There are many varieties including tender mango pickle, lime pickle and vegetable pickle. The tender mango pickle is famous for its taste. Besides being used for food and timber, the tender mango tree is also used in specific rituals. Leaves are tied around the house and in front of doors. People be-

lieve that this will protect the house from the pollutants in the atmosphere. The tender leaves of mango and jack are also used in *Kalasa*, a copper pot with water. The leaves energise the *Thirtha* or Holy water of *Kalasa*. A coconut is kept and worshipped above the *Kalasa*.

Two things surprised us in KPP about the use of tender mango and lead us to further study. First, we found a large number of varieties of tender mango in the vegetable market in Sagar. They differed in size, shape, flavour and juice content. This made us wonder about the mango varieties in the region and the quality parameters used by the local population.

Second, it surprised us that local sellers harvested the tender mangoes by cutting down the big branches. The mangoes were then transported by lorry to big cities like Shimoga, Bangalore and Chennai to be processed as industrial pickle. This worried us and we wondered why people were involved in such unhealthy harvesting practices.

## Human relationships

Sri Anand, Director of KPP, expressed his concern: "We see lorries take some 250,000 mangoes to distant market centres every day during the 30-40 day harvest period. This is in the Sagar area alone. We do not know how many more are taken out of the villages and neigh-

bouring areas.”

This practice has several implications one of which is that employment and income from processing the mangoes takes place in the cities and not in the small villages. Moreover, due to industrial pickling, the technology and know-how of local pickle preparation is being lost. The younger generation is not interested in learning it because they can buy pickle on the market. Social relations are also affected: the young generation no longer interacts with the older generation in the process of pickle making. People have lost the habit of offering a gift of homemade pickle when visiting friends or relatives. Even during community gatherings industrial pickle is now commonly used.

### Tender mango competition

KPP organised a competition to find answers to the following questions. To what extent are villagers involved with the tender mango crop? Why are these tender mangoes being exported out of the region? How many pickle industries are flourishing? What is the state of the local technology of pickle preparation today? What is the effect of the presence of industrial pickle on the market?

The workers of the KPP team first prepared the small group of local people who would conduct a survey. This team developed a questionnaire to collect information on the varieties of mango trees. Questions included the local name, the age of the tree, its fruiting pattern, yield and propagation. The team listed nearly 150 varieties and indicated that there are probably more.

In April 1999, with the help of the Karnataka Forest Department, the *Midi mavina spardhe*, or tender mango competition, was organised. During the opening ceremony the co-ordinator of the team, Sri Suryanarayana Halasinaghatta, stated that the aim of the programme was to create awareness about the diversity of the tender mango and its quality parameters. He also emphasised the economic and the cultural aspects of tender mangoes and pickle.

During the competition nearly a 100 entries were exhibited in classes like raw

tender mango, tender mango in brine and ready pickle. The judges were two farmers and two housewives experienced in pickle preparation and tender mango selection. They judged according to eight local criteria: size, shape, flavour, texture, stalk length and girth, sap content, thickness of skin and seed.

Long, well-flavoured tender mangoes with a high sap content and a thin skin are more in demand on the market. Generally the villagers prefer tender mangoes from their own locality. Tender mangoes with 70 to 80 per cent of the desired qualities are in particular demand. Only a few varieties meet this standard and most varieties fall below the 50 per cent line. Nearly ten varieties of high quality were selected during the competition.

### Some reactions

Nearly 150 local people, the KPP team and officials of the Government Forest Department attended the ceremony. Local leaders and writers were also present. Mr. Patel, one of the participants exclaimed that he was unaware there was much diversity in tender mango. “I was also unaware of the importance of tender mango preparation in human relations in earlier days”, he said.

Mr. Sridhar wondered whether the variations in quality could be related to the health of the local people. Some farmers proposed grafting and propagating the high quality varieties on a larger scale.

Sri Thimmappa Hegde, another local leader, released two other products made from tender mango. He cautioned the participants not to harvest tender mango by



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*Mangoes were judged by local criteria like flavour, size, shape and sap content*

cutting its branches. The growing demand for tender mango means that optimal use should be made of the trees.

Sri Vinaya Kumara, an official from the Divisional Forest Programme, expressed his department's interest in maintaining and propagating local tender mango varieties. He congratulated Sri Devappa, the first known farmer to graft tender mango trees, and presented him with a grafting kit.

There were many questions and comments from the participants. KPP staff feels that this is just the beginning. Local varieties of tender mango can be preserved and propagated for further study, as well as other types of biodiversity.

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*The ceremony was attended by officials of the Government Forest Department as well as local leaders and representatives of the media*