

Bittersweet story, this!

FARMING Another mango season, and the flowers have fallen off from the trees on Ramappa's farm in Kolar district. He expects the yield to drop considerably. Yet, farmers continue to be lured by the mango, writes **K Narasimhamurthy**

SLIM PICKINGS A mango tree on Ramappa's farm in Kolar district. DH PHOTOS / CHOWDA REDDY
Below right: *Appemidi* being gathered in a sack. DH PHOTO/SANDYA HEGDE ALMANE



Some summer, and the story of the mango's mixed fortunes unfolds, unflinching. Pest attacks, unseasonal rain, high-velocity winds, changing agricultural landscape, all add up to make the story of the mango a bitter-sweet one. And yet, year after year, there's hope as people look forward to another mango season.

This year, too, like last year, the yield has dipped. There is a sense of disappointment as the flowers have all fallen away, thanks to unseasonal rain. No one knows better than farmer Ramappa of Panasamakanahalli in Srinivasapura taluk of Kolar, about the mixed fortunes of the mango grower. This eighty-year-old, who was born in a house situated right in the middle of a mango farm, still looks after his trees with the same passion that he would, in his youth.

From decades, he has been growing mango on his ten-acre farm. There are several varieties including *Badami*, *Beneesha*, *Raajagira*, *Tothapuri* and *Neelam*. Every year, the number of mangoes that fall because of the wind is four times more than the number of mangoes that stay on the trees and eventually turn ripe. Ramappa still remembers the time when the trees were full of mangoes. Over the last few years, all he has gotten to see are raw, unripe mangoes strewn on the ground, thanks to wind and rain.

If it doesn't rain, the flowers easily reach fruition. Unseasonal rain brings pest, which takes a toll on the flowers. Once the flowers fall off, it's the end of the story for the mango.

This year, on Ramappa's farm, all the flowers of the *Beneesha* and *Badami* variety have fallen. These varieties are the ones that fetch maximum profits. Even *Tothapuri*, *Neelam* and other varieties may just have a 40 per cent yield this time, says Ramappa. We ask Ramappa what he thinks could be the reason for this unfortunate story. That of dipping mango yield, not just in the State, but across the country. Ramappa points out that the chemicals that are sprayed in mango farms have increased over the years.

"When we were younger, I don't re-



member any farmer spraying chemicals on his mango farm. Farmers always thought of the mango as a crop that could be cultivated easily, and something that they could rely on for their livelihood. Then, as if a curse fell on the mango, pests started attacking the crop in this region. Pests of different types, year after year, reminisces Ramappa. Horticulture experts agree. They point to these attacks as the reason for a dip in mango production.

So, how does one solve the problem? Ramappa points out that one should intersperse mango trees with other varieties such as jamun, vegetables, *ragi*, *tur* and other mixed crops.

Still a big draw...

But Ramappa observes that in spite of all the losses, there are still a lot of mango growers in the district. This is largely because the water-table in the region is depleting, and mango cultivation does not require too much water. Even those with one or two *guntas* of land take to mango cultivation.

Srinivasapura taluk alone has 25-30,000 hectares of land dedicated to mango cultivation. Srinivasapura is a taluk which has the single-largest stretch (spreading across several thousand acres) of mango trees cultivated in the whole of Asia. Lakhs of mango saplings are transported to other regions from the nurseries of Srinivasapura. The lure of the mango, it seems, won't fade away any time soon.

IT IS BELIEVED THAT MORE THAN A LAKH OF PICKLE MANGO TREES HAVE BEEN LOST IN THE LAST SIX DECADES BECAUSE OF UNLIMITED FELLING OF TREES.

INDUSTRIALISATION AND HYDRO-ELECTRIC PROJECTS HAVE DEVASTATED THE SENSITIVE ECOSYSTEM OF THE AREA.

'Appemidi' in need of resurrection

In the months of March and April, as people get ready to welcome another spell of glorious Indian summer, people of the mango belts of the Western Ghats too prepare themselves to pick mangoes. But it is not the luscious ripe mango that the farmers are after. It is the sweet-sour and pungent tasting tender mangoes that are sought after, whose overpowering smell and taste in the pickled form are a perfect accompaniment with a meal. In spite of the growing popularity of the *midi* mango pickle, the wild trees that bear the tangy fruit are still in need of attention and conservation.

Tender mangoes or *appemidi* as they are known in Karnataka are undisputedly the heart and soul of the distinctive mango pickle made in the State. *Midi* mango pickles have the exceptional quality of retaining their effervescent taste even after two to three years and without the use of any artificial preservatives. And just like each maker's hands provide a unique taste to the pickle; *midi* mangoes carry a unique taste and quality exclusive to their place of origin and their mother tree.

The mango trees that bear *appemidi* are mostly grown in forests and along the rivers. Locals say that of all the wild mangoes, only about 20 per cent can be categorised as the best *appemidi* varieties. Fruits from these trees naturally fetch high prices bringing their owners anywhere between Rs 40,000 and Rs 70,000 per tree.

Some areas in Karnataka where distinct local varieties are grown are Khanapur and Chittoor areas of Belgaum district, river valleys of Aghanashini, Kali,



Bedthi, Sharavathi and Varada of Uttara Kannada district and Sagar and Ripponpet of Shimoga district and parts of Chikmagalur district. It is these local varieties that help in maintaining the biodiversity of the mango species.

In the last few years, the demand for *appemidi* pickles has risen prolifically. Pickle making is a huge household sector industry with more than 700 species of unripe mangoes utilised to make this Indian meal accompaniment. The demand for pickles is anywhere between 4,000 and 5,000 tons a year and Karnataka alone generates revenue of almost Rs 14 crore from the tender mango market. While normal tender mangoes sell for Rs one per piece, higher quality mangoes fetch as high as Rs two per piece price.

Unfortunately, the *appemidi* market is failing to gain profits from the rising demand. While lack of organisational and marketing prowess among farmers is a problem, the more important issue is to maintain the biodiversity of the region and conserve the individual wild varieties.

Conservationists believe more than one lakh of pickle mango trees have been lost in the last six decades due to unlimit-

ed felling of trees. Industrialisation and hydro-electric projects have devastated the sensitive ecosystem of the area. What has been an added blow is the unscrupulous method of branch harvesting adopted by many naïve farmers.

To pluck a *midi* mango from the tree needs hours of patience and proficiency and many farmers have resorted to felling off entire branches causing damage to the tree and reducing its yield for the future.

Luckily, there are conservationists like Shivanand Kalave who are working towards the resurrection of *appemidi* species. An authority on the biodiversity of Western Ghats, Kalave has spent years studying the area and educating the farmers at the grass-root level.

Kalave feels that though the Western Ghats region is home to thousands of wild mango varieties, they are still neglected. Conservation is necessary not just for the plants, but also for ethnic recipes, methods of pickle making, and other cooking methods like household preparations of *appe saaru*, *gojju*, *sasve*, *chutney*, etc.

Recently, the Department of Environmental Sciences (DES) at Bangalore University too has lent its support to farmers by collecting saplings and protecting them in the University grounds. The task of collecting these wild species has been painstakingly done by Kalave and A N Yellappa Reddy, who had initiated the programme to protect the species and develop better-yielding crops. With over 102 varieties of wild species, the Department hopes it will become a mini gene pool. The battle to save the *appemidi* is an ongoing one and it can only gather storm by collective efforts of farmers, conservationists, researchers and buyers. Undoubtedly, with every tree saved, Karnataka gets a step closer to ecological and economical prosperity.

Atula Gupta