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## Back **New approach to mango farming can help raise yield**

*Jain irrigation's density planting shortens gestation period.*



*Improving prospects:* A farm of Jain Irrigation Systems where ultra high density planting of mango has been done.

*L.N. Revathy*

Coimbatore, April 22 A novel approach to mango cultivation can help shorten the gestation period of the crop, while also improving its yield.

Jain Irrigation Systems, which is involved in hi-tech agriculture in the country, has tried out this approach departing from traditional farming practices, with particular reference to plant spacing.

Jalgaon experiment

The firm has gone in for ultra high density planting (UHDP), wherein trees are planted closer than the traditional method. It tried out this method as well as medium density planting adopting 4.5m X 4.5M spacing at Jalgaon in Maharashtra.

According to Dr Soman, Senior Vice-President of Jain Irrigations Systems, initially, an area of 4.5 acres was covered with grafts of commercial varieties such as Alphonso and Ratna. Later, it was expanded to 50 acres with 1,309 grafts being planted in 3m X 2m spacing and 2,976 plants in 3m X 1m spacing.

Before this, Jain Irrigations converted a farm at Ellaymuthur village in Coimbatore district of Tamil Nadu, taken over from a renowned business firm in 2005 during the first phase of its project. The farm was converted into a hi-tech one.

“While the location was strategic (on the Coimbatore-Udumalpet stretch – about 21 km on the Munnar route), the challenge was in developing water resources within the farm, because it is in the rain shadow area and at the time of take over, the fields were water-starved,” he said.

Special pruning

Under the first UDHP for mangoes in the country, special pruning and canopy management techniques were adopted the orchards were ready for commercial production from the third year of planing.

“Mango has a long gestation period. We were able to reduce it from nine years to five in medium density planting and further down to four in UHDP. The yield is no less. The yield/hectare for high volume varieties under traditional planting methods is 10 tonnes. It rose to 18 tonnes/ha under medium density planting. Though it is still early to say much on the yield levels under UHDP, we expect it to touch 25 tonnes/ha from high volume varieties and 12 tonnes/ha in low bearer varieties. The trees have started to fruit even in the third year and the volume is also high,” Dr Soman said.

Thanks to modern technology and research, it is now possible to have “draw-fed mango trees” of

six to seven feet height which would not only allow access to the fruit directly, but also increase its yield.

#### Rejuvenating old trees

Asked how the company helped the existing (older) mango gardens improve yield levels, he said: “We help rejuvenate old trees, regulate the canopy and do the topping. UHDP requires intensive pruning.”

On cost, he said: “The planting cost ranges between Rs 60 and Rs 70 a tree in the first year. After establishing the plant, the expense would work out to Rs 12,000 an acre (including labour cost, but excluding the spend on irrigation.”

The variety that is raised is not as important as the technology, said Dr Soman.

Despite efforts to expand area under mango and strengthen yield/hectare, Dr Soman envisages a shortage of the fruit this year. “It is seasonal. While the yield has been good in the South, it is not so in the North. The price/kg of the fresh fruit could, therefore, rule high this season,” he said.

Varieties such as Himampasand and Banganapalli are for table consumption. Pulp is extracted from select commercial varieties such as Alphonso and Totapuri (Bangalora).

#### Irrigation’s significance

Dr Soman also said the idea of mango being an irrigated crop was catching up, especially with Andhra Pradesh taking the lead in this. “But Tamil Nadu is proving to be a hard nut to crack,” he said.

He told *Business Line* from Jalgaon in Maharashtra that “irrigation is required particularly during April-May. But the knowledge, awareness level amongst growers is very poor. We conduct programmes in the mango growing belts in Tamil Nadu and Andhra between October and April on irrigation, fertigation and canopy management and at the end of the season, take the farmers on a tour of the mango farms. Last year alone, we handled 29 batches of farmers and the response has been phenomenal.”

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