Growing muskmelon as precision crop is highly profitable

More yield: The farmer Mr. C. Boopathy of Dharmaputi district in Tamil Nadu has harvested about 45 tonnes of fruit from an hectare.

Muskmelon is a fruit crop cultivated widely by farmers in our country particularly during the summer season. The fruit is used for making sherbets and desserts which have a cooling effect on the body. Though it is mainly a summer crop it is now being cultivated throughout the year in Tamil Nadu, thanks to the Precision Farming technology from the Tamil Nadu Agricultural University (TNAU), Coimbatore, Tamil Nadu.

Mr. C. Boopathy, a beneficiary farmer of the precision farming technology (PFT) in Morappur village of Dharmapuri district in Tamil Nadu has grown musk melon in his one hectare farm.

Net profit
“I had spent about Rs. 90,000 as cultivation cost and was able to get a gross income of Rs. 3,60,000. Deducting the expense I have earned a net profit of Rs. 2,70,000 solely from musk melon,” he says. The seedlings are raised in protrays which are filled with cocopeat and grown in a shade net nursery under protected condition. They are ready for transplanting in the main field on 12th day of sowing, according to him.

Healthy plants
The root growth is excellent when the seedlings are grown in protrays and the seedlings are resistant to pests and diseases. All the plants are uniform, healthy and the portrays can be easily taken to the main field for transplanting, according to Dr. E. Vadivel, Director, Extension Education, TNAU.

About 20,000 seedlings are required for planting in one hectare. The field was readied using a chisel plough and disc (once) and then by cultivators, four times (with the help of a tractor). Then the seedlings were planted on raised beds of 1x4 feet (one foot height and four feet wide beds). About 25 tonnes of farm yard manure (FYM), 2 kg of biofertilizers such as Azospirillum or Phosphobacteria and 470 kg of super phosphate were applied (for one hectare) as a basal application before the last ploughing. Water soluble fertilizers were applied through fertigation pipes (similar to drip irrigation pipes) which avoid water wastage. The fertilizer application is done based on the time and the stage of the crop. Unlike crops
grown under the conventional system, precision crops come to harvest at an earlier stage. For example, this melon was harvested on the 65th day after planting.

**Uniform fruit growth**
Under normal practices harvesting can be done after the 75th day after planting. In addition there are more number of flowers in the plant and the fruit growth is also uniform, according to Dr. R.I. Muthuvel, Assistant Professor, Horticulture. Also, the fruits can be harvested in a single harvest unlike conventional system where 3-4 harvests are required. Major pests affecting the crop are beetles, white flies and fruit borers. Beetles and white flies can be controlled by spraying 2gms of Carboryl or 0.5 gms of Acetamopride diluted in one litre of water. Spraying 2 ml of Trizophos or 2gm of Thiodicarb or Methomil in one litre of water is found effective for the control of fruit borers.

The fruit weight is also more compared fetches a good price in the market due to higher sweet content and shelf life, according to Dr. Muthuvel.

“I was able to harvest two fruits from a single vine he said. Each fruit weighed 1.25 - 1.5 kg. About 45 tonnes of fruit was harvested from a hectare and sold at Rs. 5 to 12 a kg,” said Mr. Boopathy.

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