

### A package of practices for profitable coffee, black pepper cultivation

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Agriculture is no more a male dominated sector, as many women have shown that they are second to none in this field. "Women can be successful agriculturists, if they are supported with timely technological interventions by scientists and encouragement from family", says Dr. M. Anandaraj, Director of the Indian Institute of Spices Research (IISR), Kozhikode.

Mrs. Prema Ganesh from Maragodu village, Kodagu District, Karnataka is a role model for other women in this field.

### Several problems

When she ventured to take over her coffee and black pepper plantation in 10 hectares a decade ago, several problems started surfacing, especially the low productivity of crops, making agriculture a non profitable enterprise.

Keen to overcome them, she happened to attend one of the seminars organised by IISR's Cardamom Research Centre (CRC) at Appangala in Kodagu on spices cultivation.

"It was a turning point in my life," recollects Ms Ganesh.

The scientists at CRC assured full technological support to her ventures. A team from CRC visited her plantation and identified some major production constraints such as high plant density per unit area, prevalence of diseases and pests, problems like spike shedding in black pepper etc.

They provided a complete package of practices to be followed including thinning of excess plant growth to maintain optimum spacing among them, adoption of basin management techniques like application of organic manures, micronutrient application, earthing up and mulching for various crops.

"In the case of black pepper, special recommendations like basin irrigation at the rate of 40-50 litres of water at 4-5 times per vine at an interval of 5-7 days during May-June in case of delayed monsoon, regulation of shade by pruning the support trees to provide minimum 50-60 per cent exposure to sunlight were suggested," says Dr. S J Ankegowda, Head, CRC, Appangala

For diseases and pests, spraying of two rounds of Bordeaux during June and August/September and one round of drenching with 0.2 per cent Copper Oxy Chloride (COC), and need based application of insecticides were also recommended.

Trees like balangi, palawan and silver oak were planted at a spacing of 15x15 feet (random) to provide adequate shade to the crops.

In addition she readied several rainwater harvesting pits of 10 feet length, 1.5 feet width and 1.5 feet depth between the coffee plants.

These pits also serve as compost pits where all the farm wastes are dumped for two years to decompose after which they are removed and applied as organic manure to coffee and pepper, substantially reducing the cost on purchase of farm yard manure.

## **Composed husks**

Ms. Ganesh makes use of composed coffee cherry husk, a by-product of coffee pulping, after mixing with cow dung as an additional source of organic manure.

Annually she spends Rs. 35,000 per acre as operational cost and gets about Rs. 25 lakhs a year as net income from both black pepper and coffee. Reducing manual labour was an important initiative by her. "First thing they did was to lay motorable roads inside the plantation. This has reduced the strain in carrying the harvested produce in bags by labourers.

Before the roads were laid, a labourer would take about 30 minutes to carry the bag to the main road for loading it on the lorries.

"The physical strain was quite heavy. But now this has considerably reduced since the vehicles can come into the plantation," says Dr. Ankegowda.

# Underground irrigation

Another initiative was the underground pipe-lining for irrigation. Today the entire plantation has well connected irrigation line ready for irrigation all through the year.

### For more details contact

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