

## **New technology to boost production of crops**

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Plasticulture, a new technology of soil mulching with polythene sheet that conserves soil and water, is being adopted for horticultural crops for the first time in the district, which has started experiencing adverse effects of monsoon failure for the fifth year in succession.

It has been introduced for enhancing productivity thanks to the implementation of National Horticulture Mission (NHM). Mulching is a practice of covering the soil surface around plants to make conditions more conducive for plant growth through in-situ moisture conservation, enhanced microbial activities in the root zone and weed control.

Mulching is in practice here since ages in one or another form as the farmers generally use dry leaves, straw, hay, stones as mulching materials for pepper, clove, fruit tree crops etc. However, introduction of the LDPE film as mulch increases the efficiency of water use by improved moisture conservation, soil temperature and elimination of weed growth thereby increase in crop yield. Generally, thickness of LDPE film used for mulching varies from 10 to 200 micron. Outcome of the research conducted by various research organizations confirm the efficacy of plastic mulch in enhancing the yield, water saving and weed control.

Plasticulture intervention in cultivation of high-valued crops like fruits, vegetables and medicinal plants may contribute significantly to higher growth rate, says S. Raja Mohamed, Deputy Director of Horticulture, Tirunelveli.

Under protected cultivation component of NHM, during the current fiscal year, Rs. 5 lakh has been earmarked for covering 50 hectares with plastic mulching at 50 per cent subsidy of Rs. 10,000 an hectare to the maximum of two hectares for a beneficiary, he says.

Demonstrating the method of laying of plastic mulching held recently for acid-lime trees at a farm at Pudukulam in Palayamkottai block, Mr. Mohamed said that the plastic mulching had the benefits of

enhancing the total crop protection and productivity, keeping the forest cover and rich biodiversity intact, minimizing the soil erosion induced due to traditional food production system, managing the rainwater in a better way for life saving irrigation and thereby uplifting the economic status of farmers.

“There is tremendous scope of adoption of plasticulture technology. But the adoption rate is very slow due to lack of awareness. Only some headway has been made in shade-net house and drip irrigation technology. Intensive efforts in the form of demonstrations and sensitization are being made in all blocks to popularize this technology,” he says.

As of now, nearly 50 hectares of area, benefitting 50 farmers, have been covered with plastic mulching for fruit crops like mango, acid-lime, sapota, nelli and banana.

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