Aftercare

Plants grown as intercrop get sufficient shade and hence, provision of shade from all the sides is required only when it is grown under fully open condition. For this, 50% shade net of about 1.2 m height should be secured using wooden poles from all the sides of the plants. This is required to be maintained for about two years to ensure good field establishment and vigorous growth of the plants. Irrigation during the dry period i.e. January to May is required in the islands to protect the crop from drying. Drip irrigation is a viable option that not only saves the water but also improves plant performance.

Pests and diseases

With the emergence of new leaves, occurrence of leaf eating insects is generally noticed but the damage is seasonal and only few leaves get damaged. So, no control is required untilthe pest causes severe damage. Further, incidence of scales is noticed in the young plants, even in the nursery and spraying of 0.5% neem oil (5 ml/L of water) is recommended. Pruning and destruction of severely infested branches could be followed to reduce the pest load in plants that are heavily infested, otherwise drying of branch as well as plants could be noticed.

Harvesting and yield

The plant grows vigorously under the Andaman conditions and thus, harvesting could be done multiple times in a year, provided the terminal shoots have mature leaves and the weather is dry. Branches could be pruned using a sharp sickle/ machete and brought to the processing area, wherein all the diseased/ infested leaves should be removed. Small branches could be separated and air dried in well ventilated rooms. For this, branches could be hung over the ropes in a room provided with windows and fan. This is required considering the high humidity and extended rainfall in the islands. Alternatively, leaves could be separated from the branches and spread in these rooms over the clean tarpaulin/ mat. Drying of leaves in direct sun could impact the colour as well as aroma of the produce and hence, should be avoided. The fresh leaves get reduced to about 50-55% after drying, means about 500 to 550 g dry leaves could be obtained from one kg of fresh leaves. From each branch of 1 m length, yield of half kilogram of dried leaves could be obtained. Improper/incomplete drying may result in fungal incidence on the produce, which could be noticed in the form of black spots. This is a commonly seen issue in the islands and it gets worsened when the produce is not stored properly. Produce should be stored in the air tight polybags of food grade material (90 to 100 micron) to maintain the colour and aroma for longer time.

Citation

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Scientific Cultivation Techniques for Tejpat in the Andaman Islands



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Tejpat (Cinnnamomum tamala, Lauraceae)

Introduction

Tejpat, tejpatta or biryani patti is a minor yet important tree spice cultivated in the Andaman Islands. The term Bay Leaf is a wrongly used term for it as this name represents a completely different species (Laurus nobilis) of the same family, while Indian Bay Leaf is the correct term for it. Tejpat is a high volume spice crop compared to other spices and the islands' hotel industry could provide good marketing opportunities to the local produce. A few plants in the backyards could serve as a regular source of income to the island farmers, besides meeting the household requirements.

Selection of site

Tejpat is a hardy species, which is found to be grown in the foothills of Himalayas to the coastal warm and humid regions of the country, including Andaman Islands. Considering its wider adaptability, it could be successfully cultivated under open as well as intercropping systems in the islands.

Selection of Varieties

Presently no improved varieties of tejpat are available for cultivation in the country. However, ICAR-CIARI has identified superior germplasm that could be cultivated successfully in the Andaman Islands.

Method of propagation

Under the island condition, no fruit set is seen in this crop, as noticed in the hilly regions in mainland India. Hence, adoption of vegetative propagation is the only means to multiply tejpat here. For this, air layering technique standardized at ICAR-CIARI, Sri Vijaya Puram could be used. Air layering should be done in the identified superior mother plants during monsoon. Terminal shoots of about 25 cm length should be selected, leaves should be removed from this region and two circular cuts should be given about one inch apart to remove the ring of bark using a stainless steel knife. To avoid joining of the wounded region through callusing (tissue deposition without rooting), the wounded region between two cuts should be scraped gently using the knife. The circular cut made towards the tip side of the shoot should be applied with a pinch full of talc formulation of 2,000 mg/kg rooting hormone (indole 3-butyric acid). The wounded portion should then be covered with moistened coir pith compost substrate, wrapped using a transparent polythene and secured tightly with a thread. About 45 to 50 days are required for complete development of roots which could be seen through the polythene. Rooted layers should be harvested from the plant, substrate should be removed and planted in the polybags filled with equal proportion of soil and farmyard manure. While subjecting the layers for hardening, leaves should be cut to retain 1/4th of its length and hardening should be done in naturally ventilated polyhouse or shade net house with intermittent micro-sprinkler facility. Layers could be used in the subsequent monsoon for planting purpose.





Separated air layers from quality mother plants (left) showing well developed roots (right)





Air layers with cut leaf lamina subjected to hardening (left) and fully hardened air layers of tejpat ready for field planting (right)

Planting method and spacing

Leaves are the economic part of this crop and harvesting of crop causes pruning of the tree. Thus, a closer spacing of 2 to 3 m between the trees from both sides could be followed in commercial cultivation. Planting could also be done at the centre of four arecanut palms spaced at 2.7 to 3.0 m apart. Pits of about 45 cm × 45 m × 45 cm size should be dug at the identified spots and filled with well decomposed farmyard manure (6 to 8 kg). Air layers should be planted by scooping out soil of polybag size and placing the layer in it. Good contact between the soil and roots is required, which could be ensured by firmly pressing the soil surrounding the plant.



Well established plants of tejpat in the interspaces of arecanut