

INTRODUCTION

Tamil Nadu is the third major coffee producing state of the country. As on 2000-01, coffee is grown in an area of 30,681 ha. of which arabica occupies major portion (25,018 ha.) while remaining area is planted with robusta coffee (5663 ha.). The state contributes nearly 16,500 tonnes to the country's coffee production with an average productivity of 503 kg per ha which is less than the national average productivity of 954 kg per ha.

The coffee areas in Tamil Nadu can be divided into three agro-climatic zones viz., Pulneys, Shevaroy's and Nilgiris. Pulneys comprises of six liaison zones viz., Perumalmalai, Pannaikadu, Perumparai, Adalur, Sirumalai and Bodinayakanur. Liaison zones under Nilgiris are Coonoor, Gudalur and Anamalais (Valparai). Yercaud is the only liaison zone representing Shevaroy's.

Unlike the other two traditional coffee growing states of Karnataka and Kerala, which are under the influence of the South West monsoon, the coffee areas in Tamil Nadu region predominantly experience North East monsoon, especially the Pulneys and Shevaroy's. In terms of total rainfall, the Pulneys and Shevaroy's receive less than 60 inches per annum. The major rains (60%) are received during October-December. The South West monsoon also brings in about 20% of the total precipitation from June to August and the remaining 20% from summer showers. Thus, although the total rainfall is less, it is spread over through out the year. However, the blossom and backing rains are usually erratic. The Nilgiris zone receives higher rainfall of 80-100 inches fairly distributed between S-W and N-E monsoon.

Within Tamil Nadu, the different coffee zones have distinct features and location specific constraints as detailed below.

Pulneys

Pulney hills form the major coffee area of Tamil Nadu (15,000 ha.) producing about 7,000 tonnes. In general, mixed shade canopy is maintained, although some of the estates maintain a mono shade of silver oak. The rainfall ranges from 1000 to 1600 mm. The soil reaction is above 6 pH in majority of holdings. The characteristic features of the zone and constraints for production are:

- Low soil profile (shallow soils)
- Erratic and inadequate rainfall especially blossom and backing showers
- Running blossom especially in robusta coffee
- High incidence of leaf rust
- Scarcity of water for irrigation and processing
- Improper bush management (parrot pruning - Agni kavathu)
- Rocky terrain
- Cold effect at higher elevations
- Incidence of stem borer, berry borer and scale insects
- High density of intercropping especially with chow-chow in small holdings
- Labour shortage
- Absentee ownership
- In addition to the above, the liaison zone of Bodinayakanur has the following features/ constraints:
 - Scattered holdings in highly inaccessible terrain
 - Wind damage
 - Diversified interest for other crops like silk cotton, mango etc.

Nilgiris

Coffee is being cultivated in 7,785 ha in this zone, out of which robusta occupies 4175 ha and the remaining area by arabica coffee. Due to high rainfall, incidence of black rot and premature fruit drop are prevalent in this zone. The characteristic features of the zone and constraints for production are:

- Inadequate blossom and backing showers
- Long drought during June – July in Coonoor zone
- Running blossom in robusta
- Incidences of white stem borer, berry borer & shot hole borer
- High incidence of leaf rust
- Labour shortage
- Scattered holdings in highly inaccessible terrain
- Mostly tribal holdings with less than one hectare.

Since majority of the growers are tribals having small and marginal holdings with the financial constraints, the low cost sustainable production technology is more feasible in the small holdings in this zone.

Shevaroy

Shevaroy is a hill range situated in Salem District with an elevation upto 1500 meters MSL and an average rainfall of 800-1500 mm. Coffee is planted over an area of 5020 ha. of which 5000 ha is under arabica, while only few hectares is under robusta. Small growers form a majority (95%) with only 25% area, while the 5% large holdings occupy the remaining 75% of the area. Productivity in small grower sector is only about 300 kg/ha. while in large holdings it is 450 kg./ha with an average of 400 kg/ha for the entire zone. The characteristic

features of the zone and constraints identified for the low productivity are:

- Silver oak is extensively planted often as a mono shade for coffee.
- High incidence of white stem borer and green scale
- Scarcity of water
- Drought during the post-blossom period

Since majority of the growers are having small holdings with financial constraints, the low cost sustainable production technology could be recommended, while the big holdings can adopt intensive production to increase overall productivity.

Due to predominance of small arabica coffee holdings in the region and also a considerable area coming under medium and large holdings, two types of packages viz., sustainable production for small holdings and intensive cultivation package for large arabica holdings are suggested. As the area under robusta is very limited in the state, only the most important aspects of robusta cultivation are indicated.