

National Tea Research Foundation, Tea Board has sanctioned New Project

Project Title: "Package of agronomic practices on Japanese model to suit Mechanization in South India"

Host Institute: UPASI Tea Research Institute, Coonoor

Name of Principal Investigator: Dr. Victor Illango

Timeline: 30th March, 2020 to 30th March, 2023

Objectives:

- 1) Modifications of the method of the vegetative propagation, planting design for ultra high density planting and training of young tea through multi stage tipping to change the architecture of tea bushes suitable for mechanical harvesting.
- 2) Investigation in the reverse in a year without adverse impact on quality in order to overcome labor shortage. Develop harvesting techniques to reduce the number of harvesting rounds from current practice of 18-22 to 6-8 rounds. Modify factory setup to deal with the harvested leaf.
- 3) Incorporation of 60% of organic sources of nutrients (as per details given in methodology) along with NPK to achieve sustainable productivity in the mechanical harvested fields.
- 4) Influence of application method (Broad casting and band application in the walking row) of the nutrients to ensure sustainable production in the mechanically harvested fields.

Deliverables:

- 1) Vegetative propagation technique using bi clonal cuttings, new planting design for double hedge system for ultrahigh density, modified training of young tea methods to develop dense branching system to suite for mechanical harvesting in a standardized format.
- 2) Impacts of reverse harvesting rounds to 6-8 per year followed by the quality of the harvested leaf and overall economics will be worked out.
- 3) Incorporation of organic manure up to 60% in the applied fertilizers and it's influence to achieve high productivity up to 4000kg made tea will be studied in clonal tea fields.
- 4) Influence of two fertilizers applications method like Broad casting and band application in sustainable productivity and plants and soil nutrient status will be quantified.

Duration: 3years

Total Financial outlay: Rs.34,77,320/-

Note: The idea is not to reinvent the wheel but learn from what all has already been done in the past and suitably incorporate the same in the context of South Indian Tea Industry to help improve efficiency and reduce costs.



Tea harvester (0.6 m)



Two Men operated Tea harvester with 1.2m flat blade



PRUNING MACHINE



SKIFFING OF FIELD THROUGH MACHINE