

Strategies to Enhance the Adoption of Recommended Tea Cultivation Practices by Trained and Untrained Small Tea Growers in the state of Assam

Comment [U1]: Scientific names

Comment [U2]: Looks like a comparative study

Comment [U3]: scale

ABSTRACT

Tea industry has significant contribution towards the state's economy as well as India's economy and also plays vital role in employment generation and poverty alleviation of the country. The study was conducted in Upper Brahmaputra Valley Zone of Assam by selecting the highest concentrated districts of small tea growers (STGs) i.e., Tinsukia, Dibrugarh and Golaghat. Multistage purposive cum random sampling design was used for selection of respondents. A total of 400 (200 trained and 200 untrained) respondents constituted the sample of the study. Strategies drawn for the problems faced by the small tea growers through the primary data were collected through personal interview and questionnaires. Also the secondary data were being obtained through journals, research papers, books and by visiting various websites. The various strategies drawn for the problems were extension agencies or extension personnel interference in creating awareness about the recommended practices among the tea growers, concerned institutions should take care on adoption and proper management of tea cultivation so that farmers may be able to minimize their problems at farmer's level, use of ICT based technology also helps the farmers to minimize pest and insect related problems at farmers field.

Comment [U4]: The

Comment [U5]: Brief objectives

Comment [U6]: of the

Comment [U7]: remove

Comment [U8]: from

Comment [U9]: the Internet

Key Words: Adoption, Recommended practices, Strategies, Small Tea Growers.

Comment [U10]: The abstract is weak. At this level it should at least present the findings quantitatively. Recast the abstract based on the aim, objectives, methodology, findings and conclusion. Make is as scientific as possible.

1. INTRODUCTION

Tea is one of the oldest and well organised industries in India and it plays an important role in the national economy. India is the second largest producer of tea (1116 million kg) in the world after China.[1] Tea is the cheapest as well as popular beverage for the people both rich and poor throughout the globe. The use of tea dated back to 2700 B.C. in China as beverage. However, its commercial cultivation in India as a source of beverage started only in 1839 after its discovery in upper Assam by Charles Alexander Bruce. The country's tea production is estimated to be close to 1,329.04 million kg (mkg) in 2021, 71.5 mkg higher than 2020's 1,257.53 mkg (Tea Board of India, 2021) [2].

Comment [U11]: production

Comment [U12]: well-organised

Comment [U13]: source

The tea industry in Assam is about 180 years old. Tea is one of the important agriculture-based industries, which occupies an important place in Assam. Assam has suitability in terms of soil and climatic conditions and the availability of appropriate infrastructure to support the growth of tea plantation with sustained profitability. Tea has proved to be one of the most profitable agri-business ventures for the farmers of Assam and also contributes to the generation of rural employment and development of the society.

Comment [U14]: source and year

Assam produces almost 50 per cent of the total production of India and about one-sixth of the tea produced in the world. About 1,42,274 registered small tea growers produced 285.72 m.kg tea in Assam (All Assam Small Tea Growers' Association and Tea Board of India, 2017-18) [3]. The present study was undertaken with an objective to ascertain the strategies to enhance the adoption of recommended tea cultivation practices by the trained and untrained small tea growers.

Comment [U15]: scale

Comment [U16]: One objective is not enough

Comment [U17]: remove

Comment [U18]: scale

2. METHODOLOGY

The study was carried out in the state of Assam. Multistage purposive cum random sampling design was used for selection of respondents. Three districts viz., Tinsukia, Dibrugarh and Golaghat were selected purposively for the study keeping in view the concentration of small tea growers in these districts. Two development blocks were selected from each of the district. A total of twenty four villages were selected purposively from the six development block. Four villages were selected from each of the selected development block. Thus 400 respondents (200 trained and 200 untrained) were selected randomly from the selected villages. The study was conducted based on both primary and secondary data. The primary data were collected through personal interview and questionnaires. The secondary data were being obtained through journals, research papers, books and by visiting various websites.

Comment [U19]: describe briefly the geography of Assam and the comparative advantage it has in tea cultivation. Probably identify the method that small scale farmers use that makes this research to recommend recommended practices

Comment [U20]: technique

Comment [U21]: the

Comment [U22]: i.e:

Comment [U23]: comma

Comment [U24]: of

Comment [U25]: scale

Comment [U26]: s

Comment [U27]: s

Comment [U28]: randomly

Comment [U29]: s

Comment [U30]: comma

Comment [U31]: remove

Comment [U32]: well-structured

Comment [U33]: remove

Comment [U34]: remove

Comment [U35]: the Internet.

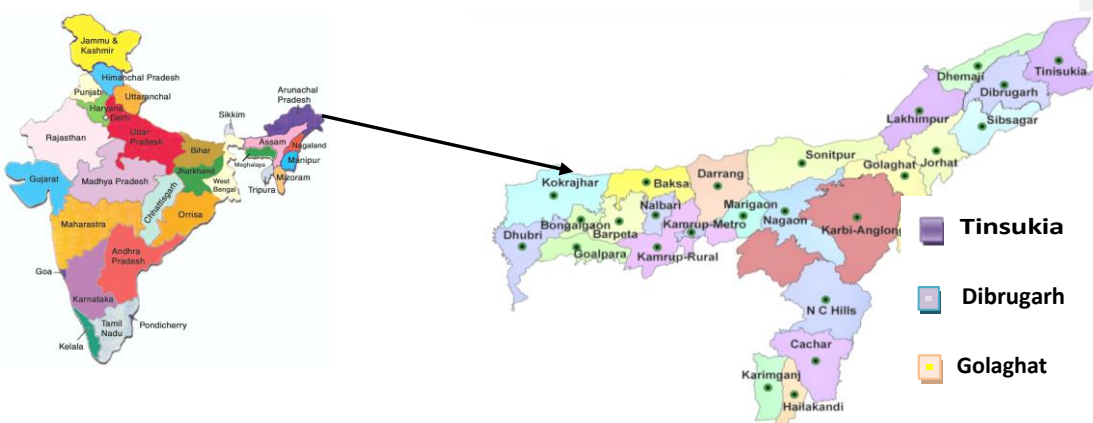


Fig.1. Map of Assam indicating the districts under study

3. Results & Discussion

The practical application of recommended tea cultivation practices by the trained and untrained small tea growers had faced many problems. Based on these problems some strategies can be suggested as follows:

- 1) According to findings of planting materials showed that majority of the respondents had not adopted TRA/Garden series and Bi-clonal seed stocks as their planting materials because the quality of planting materials were not suitable for that condition. Therefore, researchers of different research stations viz. Assam Agricultural University, Tea Board of India should go for OFT or assessment is necessary to verify the quality of planting materials.
- 2) In case of field management non adopter percentage was found to be more because they were not aware of measure of soil testing. Therefore, awareness programme should undertake by the extension functionaries to create awareness among the small tea growers about the measures of soil testing. Also popularize SHC among the STGs can develop awareness about the benefits of using SHC.
- 3) It was observed that majority of the STGs had not adopted the practice of replacement with other crops though tea cultivation was not much more productive. They have not replace the crop with other crops. This is because the STGs were not achievement oriented or economically motivated. Therefore, there is a need of awareness programme and entrepreneurship development programme through which extension agent can help them in developing positive attitude towards the adoption of such practmbiguous ice.
- 4) The findings of the study showed that majority of the STGs had not adopted mulching and infilling practices because they were very reluctant and lack of awareness about the benefits using these practices. Also tea growers did not have much idea regarding the application of these practices. So that training programmes and

Comment [U36]: and

Comment [U37]: remove

Comment [U38]: scale

Comment [U39]: on

Comment [U40]: result

Comment [U41]: comma

Comment [U42]: majority os the respondents

Comment [U43]: remove

Comment [U44]: be

Comment [U45]: scale

Comment [U46]: on

Comment [U47]: remove

Comment [U48]: should be popularize

Comment [U49]: write in full

Comment [U50]: to

Comment [U51]: Results also revealed

Comment [U52]: of tea

Comment [U53]: The author has countered his or her claims at the onset that Asam has comparative advantage in tea production, and also the statistics which this area contributes to national agricultural economy.

Comment [U54]: Repetition Remove

Comment [U55]: achievement-oriented or economically-motivated. Use one

Comment [U56]: the

Comment [U57]: for

Comment [U58]: s

Comment [U59]: which practice?

Comment [U60]: therefore,

awareness programmes should be organized by the extension agent to make them potential for using of these practices and aware about the benefits of using these practices.

Comment [U61]: s

5) Majority of the STGs did not adopt machine pruning for pruning of tea leaves because of high cost and locally not available. In this case the government should provide financial assistance to the growers which can help them in purchasing the implements.

Comment [U62]: Ambiguous. what do you mean?

Comment [U63]: recast

Comment [U64]: remove

Comment [U65]: comma

6) Based on the problems “lack of awareness about sudden outbreak of pests” and “farmers lack of awareness in monitoring of field” need to be given more importance as pest outbreak cause total failure of crop many a times. Therefore, developing ICT based system such as ‘SMS alert’, ‘mobile apps’, crop specific portal in local language for forecasting the outbreak of localized insect pests as well as for sending tea related alerts directly to the farmers may be able to minimize the problems at farmers level.

Comment [U66]: attention

Comment [U67]: the

Comment [U68]: hyphen

Comment [U69]: s

Comment [U70]: and information

Comment [U71]: at the farm

4. CONCLUSION

Tea cultivation has great potentiality in developing state's economy as well as India's economy and also contribute to the employment generation and poverty alleviation of the country. Problems faced by the Small Tea Growers hampers in adopting some package of practices that prevent them in getting actual benefit from the small tea cultivation. Mostly farmers had faced practical application of recommended tea cultivation practices. Therefore extension workers and other concerned institutions should take care on adoption and proper management of tea cultivation so that farmers may be able to minimize their problems at farmer's level. Also researchers from different research institutions should try to verify the planting materials and popularize it to the farmer's field under various climatic conditions. As the farmers are very reluctant and unaware to use recommended tea cultivation practices, extension workers should organise various training programmes and motivate them so that farmers can aware about the benefits using recommended practices as well as Soil Health Card.

Comment [U72]: s

Comment [U73]: remove

Comment [U74]: remove

Comment [U75]: s

Comment [U76]: from

Comment [U77]: s

Comment [U78]: scale

Comment [U79]: face numerous challenges, especially

Comment [U80]: Agricultural

Comment [U81]: Research Institutes

Comment [U82]: educate and equip small scale tea growers with knowledge and of

Comment [U83]: the farm

Comment [U84]: tem

Comment [U85]: farmers'

Comment [U86]: of the

Comment [U87]: of

Comment [U88]: be

Comment [U89]: of

REFERENCES

1. Arya N. India tea scenario. International Journal of scientific and research publication 2014; 3(7):6-8.
2. India's tea production in 2021, Tea Board of India; 2021.
3. All Assam Small Tea Growers' Association and Tea Board of India; 2017-18.

Comment [U90]: Scanty references

Observation

No table

No statistics

No objective of the study

Methodology not systematic

Paper not technical

Scanty References

UNDER PEER REVIEW