



# Problems faced by Small Tea Growers in Adoption of Tea Cultivation Practices in Assam

P Saikia, A K Bhattacharyya and Z Khuvung

Department of Extension Education  
Assam Agricultural University, Jorhat-785 013 (Assam), India

---

## ABSTRACT

Tea industry plays an important role in the state's economy as well as India's economy and also contribute to the employment generation and poverty alleviation of the country. The study was conducted by selecting the districts of Upper Brahmaputra Valley Zone of Assam which comprises of the highest concentrated 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. Weighted mean score (WMS) was used to find out the intensity of the problems. The total rank scored for each problem was obtained by multiplying the frequency of problems with the respective weightage and adding them up. Then, the mean score of each of the problems was found out along with their respective rank. The major problem faced by the small tea growers in adopting recommended cultivation practices as perceived by them was high cost of planting materials, inadequate knowledge regarding infilling, high cost of some fungicides and fertilizer, inadequate knowledge in the use of pesticides, inadequate knowledge on soil pH and its management, lack of awareness about the method of propagation and advantages of mulching, non-availability of pruning machine.

**Key Words:** Adoption, Problems, Recommended practices, Small Tea Growers.

---

## INTRODUCTION

The tea industry in India plays a very useful part in the national economy. India is the world largest producer of tea accounting for one-third of the global tea production. After the introduction of small scale tea cultivation in Assam, the hilly states of North East India like Arunachal Pradesh, Nagaland, Mizoram etc. and some other non-traditional states have also started tea cultivation. Changlang, Dibang valley, East Siang, Lohit, Longding, Lower Dibang Valley, Papumpare, Tirap, Upper Siang and West Siang are the areas where tea cultivation has been started. In Meghalaya, East Khasi Hills, Ri-Bhoi and West Garo hills are the main growing district. In Nagaland the tea cultivation is found in Mon and Mokokchung district. Presently the traditional tea growing tract in Darjeeling of West Bengal has witnessed the growth of small tea sector. There

are about 800 small tea growers registered with Tea Board in Darjeeling district. The other areas where small scale tea cultivation has been started are Alipurduwar, Cooch Behar, Jalpaiguri and Uttar Dinajpur. The small sector of West Bengal now contributes about 54 per cent of the state's tea production. (Tea Board of India, 2017-18).

According to all Assam Small Tea Growers Association, the STGs contribute with 29 per cent of the state's total tea production and with 14 per cent of the country's overall production. The major concentration of STGs is found in upper Assam districts like Tinsukia, Dibrugarh, Sivasagar, Golaghat and Jorhat contributing more than 82 per cent of the total production of the small grower sector. Out of the five concentrated districts, the highest number of growers is in Tinsukia district. The highest concentration of plantation in upper

**Table 1. Practice wise problems faced by the trained and untrained small tea growers (n=400)**

Sr. No.	Problem	WMS	Rank
<b>A.</b>	Problems related to planting materials		
1.	High cost of planting materials	2.37	I
2.	Lack of knowledge on planting materials (type of planting materials, time of planting etc.)	2.28	II
3.	Non availability of planting materials in the village at proper time	2.26	III
<b>B.</b>	Problems related to infilling		
1.	Inadequate knowledge regarding infilling	2.27	I
2.	Lack of awareness on method of infilling	2.21	II
<b>C.</b>	Problems related to disease		
1.	High cost of some fungicides	2.44	I
2.	No proper knowledge on diseases	2.33	II
3.	Lack of knowledge on management practices	2.20	III
4.	Non availability of fungicides locally	2.10	IV
<b>D.</b>	Problems related to fertilizer		
1.	High cost of fertilizer	2.38	I
2.	Inadequate knowledge on the use of fertilizer	2.35	II
<b>E.</b>	Problems related to pesticides		
1.	Inadequate knowledge in the use of pesticides	2.45	I
2.	High cost of pesticides	2.43	II
3.	Non availability of recommended desired pesticides locally	2.38	III
<b>F.</b>	Problems related to soil		
1.	Inadequate knowledge on soil pH and its management	2.75	I
2.	Lack of knowledge on soil organic matter and fertility	2.28	II
<b>G.</b>	Problems related to propagation		
1.	Lack of awareness about the method of propagation	2.36	I
2.	Insufficient knowledge about the time of propagation	2.14	II
<b>H.</b>	Problems related to mulching		
1.	Lack of awareness about advantages of mulching	2.34	I
2.	Reluctant to use mulching	2.27	II
3.	Inadequate knowledge on using mulch materials	2.13	III
<b>J.</b>	Problems related to pruning and skiffing		
1.	Non availability pruning machine	2.62	I
2.	High cost of pruning machine	2.30	II
3.	Inadequate knowledge on pruning and skiffing practices	2.19	III

## Problems faced by Small Tea Growers

Assam is due to already available infrastructure with existing big tea gardens (market, planting materials, skilled workers and un-used or under exploited suitable high land). Presently, the concept of growing tea in small scale has percolated down even to the non-conventional districts like Kokrajhar, Dhemaji, Karbi Anglong, Karimganj and Morigaon. Apart from upper Assam, the districts of Udalguri, Sonitpur and Nagaon have shown remarkable growth in this sector. The present study was undertaken with an objective to ascertain the various problems faced by the trained and untrained small tea growers in the adoption of recommended package of practices for tea cultivation in Assam.

### MATERIALS AND METHODS

A set of common problems faced by the respondents while adopting recommended tea cultivation practices were prepared after studying and consulting available literature, discussion with experts and pretesting in a non-sampling area. Respondents were asked to indicate the problems they faced and thus it was kept as close handed as well as open ended questions. The problems were found out and classified into nine as related to planting materials, infilling, diseases, fertilizers application, pesticides, soil, propagation, mulching, pruning and skiffing. The respondents were also asked to give their response against each problem by choosing a given option *i.e.*, very serious, serious and not so serious.

The responses thus received were categorized on a three point continuum as very serious (3 marks), serious (2 marks) and not so serious (1). The weighted mean score (WMS) was used to find out the intensity of each problem. The total rank scored for each problem was obtained by multiplying the frequency of problems with the respective weightage and adding them up. Then the mean score of each of the problems were found out along with their respective rank.

### RESULTS AND DISCUSSION

A number of problems were faced by the trained and untrained small tea growers during cultivation of tea. There were seventeen (9) major practice wise problems which were again having twenty four (24) sub-problems faced by the trained and untrained small tea growers. The problems of the small tea growers were ranked on the basis of WMS. Then the mean score of each of the problems were found out along with their respective ranks.

It can be seen (Table 1) that the problem high cost of planting materials ranked first and the problem non-availability of planting materials in the village at proper time ranked last among the planting materials problems. Most of the small tea growers could not buy required planting materials by themselves because of their poor economic condition. Inadequate knowledge regarding infilling ranked first and the problem lack of awareness on method of infilling ranked second among the infilling related problems. Most of the small tea growers did not have adequate knowledge and also lacked awareness on necessity to fill up the gap by planting new plant in tea cultivation.

It can be also seen that the problem high cost of some fungicides ranked first and the problem non-availability of fungicides locally ranked last among the disease related problems. Most of the small tea growers could not buy fungicides due to high cost and their poor economic condition. Most of the fungicides were not locally available, therefore they had to go to distant markets to purchase the product. Similar kind of findings were reported by Borah (2016), Shah and Patel (2016).

The study revealed that the problem high cost of fertilizer ranked first and the problem inadequate knowledge on the use of fertilizer ranked second among the fertiliser related problems. It may due to poor economic condition of the small tea grower, unawareness about time, dose and method of application of fertiliser in tea cultivation. Similar kinds of findings were also reported by Baruah

(2011), Mudoj and Dutta (2016), Jaganathan and Palanichamy (2017).

The problem inadequate knowledge in the use of pesticides ranked first and the problem non-availability of recommended desired pesticides locally ranked last among the pesticide related problems. It may be due to the facts like most of the small tea growers could not buy pesticides due to high cost and their poor economic condition. Most of the pesticides were not locally available, therefore they had to go to distant markets to purchase the product. Similar kind of findings were also reported by Jaganathan and Palanichamy (2017). Apart from that problems like inadequate knowledge on soil pH and its management ranked first and the problem lack of knowledge on soil organic matter and fertility ranked second among the soil related problems. This may be due to small tea growers' unawareness and reluctance to meet extension personnel. Similar kind of findings were reported by Hazarika and Borah (2013).

The data (Table 1) show that the problem insufficient knowledge about the time of propagation ranked first and the problem lack of awareness about the method of propagation ranked second among the propagation related problems. This may be due to small tea growers' unawareness, inadequate knowledge on method of propagation and poor scientific orientation as well as poor extension contact, etc. The study revealed that the problem lack of awareness about advantages of mulching ranked first and the problem inadequate knowledge on using mulch materials ranked last among the mulching related problems. This may be due to small tea growers' unawareness and reluctance, inadequate knowledge on mulching materials and method of mulching, etc.

The study also revealed that the problem non-availability pruning machine ranked first and the problem inadequate knowledge on pruning and skiffing practices ranked last among the pruning and skiffing problems. This may be due to small tea growers' inadequate knowledge on time and height

of pruning and skiffing and inability to purchase pruning machine due to its high cost, etc.

## CONCLUSION

Since there is a great potentiality in tea cultivation in terms of situational feasibility and economic viability in Assam where vast majority farmers were small and marginal, adoption of recommended practices of tea would certainly improve their socio-economic condition, with minimum risks and uncertainties in cultivation. In that condition problems faced by the small tea growers' hindrance the adoption of such recommended tea cultivation practices leads to demotivation of tea growers towards profitable tea cultivation. This calls for conscious consideration and care on the part of extension workers and other concerned institutions on adoption and proper management of tea cultivation that farmers may be able to minimize the problems at farmers level.

## REFERENCES

- All Assam Tea Growers' Association and Tea Board of India, 2017-18.
- Baruah B P (2011). *Training Needs of Small Tea Growers*, Cheuge Shilpa, **VIII**, pp.120-125.
- Borah P (2016). A Study on the problems and strategies required for the development of small tea growers in Assam With special reference to Dibrugarh District. *Int J Humanities & Soc Sci Stud (IJHSSS)* **2**(6):177-183.
- Hazarika K and Borah K (2013). Small tea cultivation in the process of self-employment: A study on the indigenous people of Assam (India). *Int J Latest Trends Fin Eco Sci* **3** (2).
- Jaganathan A and Palanichamy K (2017). A study on small tea growers satisfaction level and problems with special reference to the Nilgiris District of Tamil Nadu. *Int J Sci and Res* **6** (6). ISSN (Online): 2319-7064. [www.ijsr.net](http://www.ijsr.net)
- Mudoj D and Dutta S (2016). Potential factors behind the rapid growth of small tea growers (STGs) in Golaghat district of Assam-An analysis. *Int J Business and Admin Res Rev* **2** (1). E- ISSN -2347-856X, ISSN -2348-0653.
- Shah S K and Patel V A (2016). Tea Production in India: Challenges and Opportunities. *J Tea Sci Res* **6** (5):1-6. <http://jtsr.biopublisher.ca>

Received on 28/2/2022

Accepted on 20/3/2022