

## **Perception of Tea Small Holders in Badulla District in Adopting Mix Crop Cultivation**

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### **Introduction**

Tea is a humid loving tree species, the growth of tea is negatively affected by strong light and high temperature (Ekanayake, 2003). There is a potential to supplement the shade with other tree species of economically important as the method of mix crop cultivation with tea (Jayasinghe, 1982). It is important to maintain adequate shade as well as to increase the unit land productivity. It was aimed to study the factors that affect the willingness of tea smallholders for adopting mix crop cultivation in tea small holdings in Badulla district.

### **Methodology**

Hundred and eighty tea smallholders were selected from the Badulla district by using random sampling techniques. A structured questionnaire and the direct interview method were used to collect information. There were eight independent variables as age of the farmer, education level, farming experience, type of income, monthly income, time devoted for cultivation, intensity of extension contact and land extent.

Descriptive statistics were used to evaluate the present situation of mix crop cultivation and chi square analysis was used (Minitab14 software package) to analyze whether there is an association between independent variables and the willingness to the adoption of mix crop cultivation by smallholders.

### **Results and Discussion**

The Mean value of the age category in smallholders who are willing to adopt mix cropping was 50.41 and age of the mean farming experience was 15.989. According to the land extent, mean land extent of the smallholder was 1.498 and 0.25 acre land was the smallest land size and 7 acres was the largest land size owned by the farmer. Highest monthly income of smallholder was Rs 70000 and a few farmers still have not earned money from tea. They got extension services about tea and mix crop cultivation and mean value of extension contact was 7.76 weeks. But some small holders not yet access to extension services. When considering age category of the smallholders, 48.88 % have cultivated tea in 41-60 age group. 36.67% of small holders are willing to adopt mix crop cultivation with tea within this category. There is less number of small holders (8.9 %) willing to adopt who are in the 60 years age category. Out of the sample population, 42.78 % of smallholders have educated up to the ordinary level. 26.67 % of small holders were educated up to primary level. Education levels between primary & ordinary levels have shown an equal number of respondents were unwilling to adopt of mix cropping. As according to above willingness category, less number of small holders from higher educated level was unwilling to adopt mixed cropping. It was 2.22% of the total. The higher percentage of smallholders who are willing to adoption mix crop cultivation was in ordinary level

educated category. It is 53.33 % smallholders in the sample have 10-19 years experience. Farmers who have experience 10-19 years in the tea growing, 75 % of smallholders are willing to adopt mixed cropping and it is the largest value of farmers that are willing to adopt. 34.4% of smallholders have owned 1-1.9 acre land extent and 39.37% of smallholders under the 1-1.9 acre land extent category were willing to adopt mix crop cultivation. It was largest value from the total of 127 smallholders who are willing to adopt. Willingness to adoption of mix cropping was lower in smallholders who are having tea lands larger than 3 acres. 49.60% of smallholders were willing to adopt and 22.64% respondents were unwilling to adopt. 70.53% smallholders in Rs.0-14000 income category were willing to adopt mix cultivation and 29.46% of smallholders were unwilling to adopt and growers who are partially spend their time, 46.55% were willing to adopt mix crop cultivation and 53.54% of growers who spend full time in tea growing were willing to adopt. 61.41% smallholders were willing to adopt cropping pattern who considered tea as their main income source as well as 18.89% of respondents were not willing to adopt. 92.45% of respondents were answered that they are willing to adopt mix crop cultivation and they grow tea as an additional income. Out of the sample population, 54.71% were unwilling to adopt.

According to the summary result of the chi square analysis, type of income and intensity of extension contact have a significant effect to the adoption of mix crop cultivation from selected eight factors. It can be explained that the awareness and knowledge about the mix crop cultivation was enhanced by the visits of extension agent to the tea small holdings.

## Conclusion

This study showed that most of the tea small holders were willing to adopt mix crop cultivation with tea in Badulla district and it showed that the type of income and intensity of extension contact have a significant effect to the adoption of mix crop cultivation among the eight factors studied in this survey.

## References

- Ekanayake, P.B. 2003. Crop diversification and Intercropping in tea lands. Tropical Agricultural Research and Extension
- Jayasinghe, H.D. 1982. The constraints and problems affecting the small holding sector in Sri Lanka.