

## **Level of Adoption of TRI Fertilizer Recommendations in the Mid Country Region**

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### **Introduction**

Being the major plantation crop, Tea (*Camellia sinensis*) plays an important role in the economy of Sri Lanka. Tea industry in Sri Lanka contributes 1% of the Gross Domestic Production (GDP) while generating 14% of net foreign exchange earnings for the nation (Central Bank of Sri Lanka, 2011).

Lands owned by small holding sector and corporate sector were 120,500 ha and 84,119 ha respectively their contribution to national made tea production was 76.2 percent and 23.8 percent respectively (Anon, 2011). According to the statistical pocket book in plantation crops 2010, Kandy and Matale have 22,599 ha and 5130 ha of lands respectively under tea. According to the above statistics, it is obvious that the maintaining the sustainability and productivity of small scale tea plantations is crucial. In that aspect, following the recommended cultivation practices is very important. Accordingly, the present study is aimed at evaluating the level of adoption of TRI recommendation of fertilizer applications.

### **Methodology**

The survey was conducted within the Kandy and Matale administrative districts covering small holdings, proprietors and corporate sector estates in each district. Pre tested, structured questionnaire was used in collecting the data. 181 respondents were randomly selected for the survey considering the existing number of tea growers in each group.

### **Results and Discussion**

Descriptive analysis revealed that, when it comes to the mature tea, the adoption level of recommended fertilizer mixtures by the small holdings, proprietors and estates were as 69%, 89%, and 65% respectively and the frequency of application was as 29.1%, 42.9% and 44.4% respectively. The adoption of dosage of application was 37.7%, 66.7% and 35.3%. When it comes to the immature tea, level of adoption of recommended fertilizer mixture by the small holdings and estates were recorded as 68% and 91.5% respectively and the frequency of application was 39%, 67% and the dosage adopted was 42.1% and 50%.

The results of the chi-square tests is indicated in Table 1 and 2.

### **Conclusions**

According to the descriptive statistical analysis, it was revealed that the proprietors are very much concerned in following the TRI recommendation in comparison to the other two groups. In the case of immature tea, the adoption level is more with the small holders. In general, it was found that non adoption of TRI fertilizer recommendations by the tea growers were influenced by three independent variables i.e. knowledge on tea cultivation, extension service provided, and the attitudes of the grower.

**Table 1: Factors affecting non-adoptability of TRI fertilizer recommendation for immature tea**

	Independent Variable	Chi-square value	Degree of freedom	P-Value
Fertilizer Mixture	Training	5.909	1	0.015
	Knowledge	6.564	1	0.010
	Extension	11.031	1	0.001
	Attitude	14.949	2	0.001
	Education	5.267	1	0.022
Frequency of Application Fertilizer	Attitude	8.865	2	0.012
	Extension	7.920	1	0.005

**Table 2: Significant factors affecting on non -adoptability of TRI fertilizer recommendation for mature tea**

	Independent Variable	Chi-square value	Degree of freedom	P-Value
Fertilizer Mixture	Knowledge	16.868	3	0.001
	Extension	17.971	2	0.000
	Attitude	37.344	4	0.000
	Yield	11.035	2	0.004
	Gender	7.245	1	0.007
Frequency	Training	9.847	1	0.002
	Knowledge	13.257	3	0.004
Dosage	Knowledge	14.251	3	0.003
	Extension	29.346	2	0.000
	Attitude	22.704	4	0.000
	Yield	6.195	2	0.045

## References

- Anon, 2011. Annual Report. Tea Small Holding Development Authority, Sri Lanka.  
 Central Bank of Sri Lankam 2011. Sri Lankan Socio-Economic data. 2011. Vol XXXIV.