

## **PRESENTLY USED FERTILIZER MIXTURES ON NUTRIENT STATUS IN TEA SOILS**

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Twenty six sites were selected representing all senior tea inspectors' (STI) regions in Galle, Matara, Kalutara, Ratnapura, Kegalle, Kandy, Gampola and Bandarawela Tea Small Holder Development Authority (TSHDA) regions. The experimental plots were demarcated to assign five treatments *viz.* 1) VP/LC880, VP/UM 910 and VP/UVA945 (NPK) P and K<sub>2</sub>O constant, N source-Urea 2) U709 (NPK) N: K<sub>2</sub>O 2:1, N source-Urea 3) T1130 (NPKS) N: K<sub>2</sub>O 2:1, N source-SA 4) U709 + Kieserite (NPKSMg) N: K<sub>2</sub>O 2:1, N source-Urea 5) UT752 (NPKS) N: K<sub>2</sub>O 2:1, N source-Urea, SA + 2 bags dolomite per year per acre. Soil and leaf sampling were undertaken before 1<sup>st</sup> treatment application and at the end of the experiment period. They were analyzed for soil pH, organic carbon, available P, K, Mg and SO<sub>4</sub>-S content and leaf N, P, K, Mg and S concentration. No significant differences in soil pH were observed among different types of fertilizer mixtures in the all regions except for Kandy and Gampola regions. However, lowest pH levels have been observed in T 1130 fertilizer applied plots. There is no significant difference in soil available phosphorous, potassium and magnesium content due to application of different fertilizer mixtures. The soil sulphur (SO<sub>4</sub><sup>2-</sup>) content significantly varied with the plots receiving different fertilizer mixtures. T 1130 applied plots showed the highest sulphur content in the all the regions as it contains sulphur from sulphate of ammonia, the source of nitrogen. Hence, use of a NPK + Mg + S mixture would be the most appropriate short term remedy.

**Key words:** Plant nutrients, Soil fertility, Tea fertilizers