

**POSSIBLE CAUSES FOR THE GAP BETWEEN POTENTIAL AND
COMMERCIAL YIELD OF RECOMMENDED RUBBER
(*Hevea brasiliensis* Muell Arg.) CLONES**

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Recommended rubber clones are with high yield potential, about 3000 kg/ha/year. However, the commercial yield is about 50% less than the potential yield in Sri Lanka. Therefore, this study was conducted to investigate the possible causes for the gap between potential and commercial yield of five recommended rubber clones *viz.* RRIC 100, RRIC 102, RRIC 121, RRISL 217 and RRISL 2001 which are commercially grown in low country wet zone of Sri Lanka. Yield determinant parameters *viz.* girth, virgin bark thickness, length of tapping cut, latex volume and dry rubber content were measured by test tapping the selected rubber blocks.

Correlation analysis was carried out between mean girth (G), virgin bark thickness (B), length of tapping cut (L) and yield per tree per tap (g/t/t). The g/t/t had significant ($p < 0.05$), strong and positive correlations with G and B (0.687 and 0.655 respectively). Further, g/t/t had positive correlation (0.433) with L which was not significant. Study revealed that, G is the major g/t/t determinant parameter in rubber and it has strong positive correlation with L. Clones with higher G gave a yield (g/t/t) more similar to potential while clones with lower G gave a yield lesser to potential.

The g/t/t of a particular clone alone is not enough to measure the yield gap. Therefore a long term study is further needed to quantify the contribution of above yield determinant parameters on actual commercial yield.

Key words: Rubber, Clone, Potential yield, Commercial yield, Yield gap