ASSESSMENT ON THE INCIDENCE OF TAPPING PANEL DRYNESS AND YIELD PARAMETERS OF DIFFERENT RUBBER (*Hevea brasiliensis*) CLONES

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ABSTRACT

Tapping Panel Dryness (TPD) is a common disorder which is a complex physiological syndrome that causes severe reduction in yield and but does not lead to death of trees. TPD is one of the major problems in rubber industry which reduces the productivity of rubber. Until now, exact reasons for TPD have not been found. Generally high yielding clones are often considered susceptible to this physiological disorder. This study was carried out to find out clonal susceptibility to TPD and to find out correlations among yield parameters, yield and bark consumption rate of healthy and TPD trees of different clones. Four popular clones in the rubber estate at Kuruwita substation of the Rubber Research Institute were selected for the study. The clones were RRIC 100, RRIC 121, RRISL 201, and RRISL 202. The experimental blocks were selected from each field based on the availability of clones and on stage of tapping of those clones. Survey was begun early in the morning at the time of tapping, observing each tree with latex harvesters. For the analysis of latex parameters, thirty trees were selected from each block selecting 10 trees per each category, healthy, partial dry and fully dry trees. There is a significant association ($p<0.05$) between the genotype and panel dryness. Incidence of panel dryness appears to be low in clone RRIC 121. Clone RRISL 201 and RRISL 202 have shown a high incidence of fully dry trees than other two clones. Nevertheless, partial dryness was lowest in RRISL 201 (8%). It was found that the influence of the tree type (healthy or partial dry) significantly correlated with flow rate, latex volume and individual tree yield (g/t/t). Those parameters are significantly higher in healthy trees than partial dry trees. Bark consumption and plugging index did not correlate with the tree type. However, bark consumption rate, plugging index, flow rate and latex volume were significantly different among clones.

Key words- Healthy trees, Partial dry trees, Physiological Syndrome, tapping panel dryness (TPD), yield parameters