

**B-05 : INFLUENCE OF DIFFERENT SOIL MANAGEMENT PRACTICES
ON SOIL PHYSICAL PROPERTIES AND THEIR EFFECT ON GROWTH
OF IMMATURE RUBBER**

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The influence of different soil management practices on soil physical properties and their effect on growth of immature rubber was studied using clone RRIC 102, in the wet region in Sri Lanka.

This field experiment was set out according to a randomized block design with seven different soil management practices i.e. naturals, bare land, mulching with rice straw and four leguminous cover crops namely Pueraria, Desmodium, Tephrosia and Stylosanthus.

Dead mulch (rice straw) exhibited the highest girthing of plants with 30.23 cm in comparison with other practices such as naturals 23.46 cm in comparison with other practices such as naturals 23.46 cm or leaving the land bare 26.4 cm.

Low bulk density, high void ratio, porosity, high soil penetrability and high infiltration rate indicated that the soil structure improved in plots that were mulched and the soils that were left bare were compacted compared to other management practices. Mulch served as a granulating agent in the soil and improved the soil aggregation.

Mulching was found to be very effective in not only reducing evapotranspiration losses but also in improving soil physical properties. This study revealed that rice straw can act as a soil reconditioner for young rubber when used as a mulch.