

COMPARISON OF PIPETTE METHOD AND
HYDROMETER METHOD IN DETERMINING
SOIL TEXTURE OF SRI LANKAN SOILS.

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Soil texture is an important property that determines specific surface, pore size distribution, soil water retention, rheology and chemical properties such as CEC. Soil texture is commonly determined by using pipette or hydrometer method. Out of these two methods, the hydrometer method is convenient than the pipette method. The objective of this study was to compare the hydrometer method with pipette method in determining the soil texture for seven Sri Lankan soils namely Non-Calciic Brown (NCB), Reddish Brown Earths (RBE), Low Humic Clay (LHG), Reddish Brown Latosols (RBL), Immature Brown Loams (IBL), Red Yellow Podzolic (RYP) and Red Yellow Latosols (RYL).

The particle size distribution curves were obtained using standed pipette and hydrometer method. The results showed that when hydrometer and pipette methods were compared, sand and silt contents were significantly over estimated by the hydrometer method. The clay content was significantly under estimated when compared with the pipette method. This indicates that for the soil low in clay such as NCB and IBL, hydrometer method can be used successfully to determine the texture accurately. For the soils with high clay content such as RYP, LHG, RBL and RYL, the pipette method gives more accurate results than the hydrometer method.