

ORTHIC A HORIZON

Layman's description: None of the above

(i) is a surface horizon that does not qualify as an organic, humic, vertic or melanic topsoil although it may have been darkened by organic matter.

A majority of soils in South Africa have topsoils which do not show organic, humic, vertic or melanic character and may be regarded as "ordinary" or "normal". They are defined, by exclusion, as orthic. Occurring as they do over virtually the full range of soil forming conditions encountered in South Africa, orthic topsoils will clearly vary widely in organic carbon content, colour, texture, structure, base status, mineral composition, etc. Because there is normally a natural genetic relationship between topsoils and subsoils, there tends to be marked covariance between many of their properties. Consequently, although the classification does not take direct account of the variation in properties of orthic topsoils, it does, through covariance, go a long way towards implying the nature of these topsoils. For example, the orthic topsoils of Katspruit, Hutton and Pinegrove forms differ in all or some of their physical and chemical properties and in moisture regime. However, the nature of the topsoil can, in each case, largely be deduced from the classification. Hutton has reddish coloured, weakly structured topsoils, free from waterlogging. Katspruit form is characterized by waterlogging and anaerobic conditions; its orthic topsoil will therefore be grey or dark grey, weakly structured and subject to wetness. The orthic topsoil in Pinegrove form has undergone podzolization in well-drained conditions; it is therefore coarse textured, has bleached sand grains, is acid in the virgin state and is not subject to waterlogging. Additional information on the properties of the A horizon can often be deduced from the differentiae used within each soil form. For example, the organic carbon content of the orthic A horizon of a dystrophic member of the Hutton form will be higher than that of a eutrophic member.