SOIL CLASSIFICATION

The classification system used in this survey was developed to handle the range of sedimentary profiles that occur in terraced flood -plains, subjected to a range of soil-forming influences over a time span from zero years to soil maturity. It can be extended to cover comparable situations elsewhere.

Most of the groups can be fitted into more generalized systems of classification such as the well known Great Soil Groups used by Stephens (1962) in the Manual of Australian Soils, and by Stace et. al. (1968) in the Handbook of Australian Soils. However, series 1_3 and 1_4 the most characteristic soils of the area, are difficult to fit into a Great Soil Group. They clearly depart from the group of Alluvial Soils, but podsolic or other features are very weakly expressed.

Great Soil Group classifications (Stace et. al. 1968) are as follows:

Group 0 soils, and Series 1_1 , 1_2	Alluvial Soils
Series 1_3 , 1_2 normal profiles	Transitional to Grey Brown Podzolic Soils
Series 1 ₃ , 1 ₄ reddish variants	Transitional to Red Podzolic Soils
Series 1 ₆	Minimal Yellow Podzolic Soils
Series $2_6, 3_6$	Yellow Podzolic Soils
Group 2, excepting 2 ₆ and grey phases	Red Podzolic Soils
Series 3 ₆ and Group 3f	Red Podzolic Soils
Series 3 ₄	Red-Brown Earths

The Factual Key of Northcote (1965) gives greater precision than the Great Soil Group concept to the classification of individual profiles, and with further clarification of several of his terms the Key is likely to come into general use. Using field descriptions, and pH where necessary, the type sample profiles (Appendix I) and additional reference profiles have been tentatively classified using this system, and are the basis for the following generalizations.

Group 0 soils are shallow and uniform, the solum consisting of one or occasionally two A horizons, which may or may not be A_1 , i.e., darker than the material below, resting on either unaltered sediment or on an older soil which is most often another Group 0 soil.

Series 0_1 and 0_2 include both Ucl and Uc5 or Uc6 profiles. The last two sections are not distinguished by the Key where the solum consists of an A horizon only.

Series 0_3 includes both Uc5.11 and Um5.2.

Series 0_4 profiles are either Um5.51 or Um5.2, but the field description of the dry consistence was not sufficiently precise to distinguish between class 2 and class 5. Probably both occur.

Group 1 soils are all deep and uniform, except that texture contrasts in the sediment persist to give duplex profiles in a few cases. In most cases there are A, B and C horizons; in others the B horizon passes into unaltered sediments, or occasionally rests on an older soil or D horizon.

Series l_1 and l_2 profiles are typically Uc5.11, the colour B horizon not being coherent.

Series 1_3 and 1_4 excluding the grey variants include Um6.12, Um6.13 and Um6.14 profiles. These three principal profile forms are distinguished on the value/chroma rating of the B horizon, and do not separate the reddish variants from the normal, which are separated by hue rather than value/chroma rating. Some *light profiles* of series 1_3 are classified Uc6.

Group 2 soils are typically deep, gradational profiles though Series 2, is classified Uc.

Series 2_3 and 2_4 are Gn4,1, with one variant having a Dy2.4 profile.

Groups 3 and 3f are deep, duplex profiles.

The series 3₅ profile is Dr2.22 and the *Group* 3*f* profiles are Dr2.11.

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