

Soil Orders In Hawaii

Prepared by Hue, Ikawa & Yost
Graphics was prepared by Miles Hakoda

Andisol



Kula Series, Maui

Hilo Series, Hawaii

Andisols are soils derived from volcanic ash. The less weathered Kula soil on Maui is quite productive, while the Hilo soil on the Big Island is highly weathered and requires lots of fertilizers for crop production.

Aridisol



Kawaihae Series, Hawaii

Aridisols are soils of the arid areas or soils with high salt content. The Kawaihae soil of the Big Island has features of an arid area of light color, low organic matter, and shallow depth.

Entisol



Jaucas Series, Maui

Entisols are least-developed soils showing only a weak surface development. The calareous Jaucas soil on Maui is an example with sandy texture, and excessive drainage.

Histosol



Papai Series, Hawaii

Alakai Series, Oahu

Histosols are organic soils with a high organic matter content in the surface horizon. The Papai soil on the Big Island has lost almost all of the surface organic matter (OM), but the Alakai soil atop Mt. Kaala on Oahu is high in OM.

Inceptisol



Kolekole Series, Oahu

Inceptisols are soils showing minimal development of soil horizons. The Kolekole soil on Oahu is an example.

Mollisol



Kawaihapai Series, Oahu

Makawele Series, Kauai

Mollisols are fertile soils with high organic C and high base saturation. Although the Kawaihapai soil on Oahu is dark, the Makawele soil on Kauai is red because of Fe oxides.

Oxisol



Halii Series, Kauai

Oxisols are the most weathered soils of the tropics with low nutrient holding capacity and high Fe and Al oxides. The Halii soil on Kauai is an example.

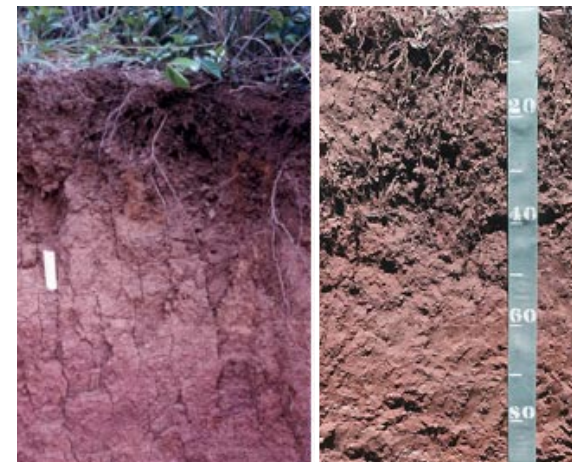
Spodosol-like soil



Oahu

Spodosols are soils with leached Al, Fe, and organic materials in the subsoil, showing a distinct layer.

Ultisol



Alaeloa Series, Oahu

Haiku Series, Maui

Ultisols are highly weathered infertile soils with clay accumulation in the subsoils. Examples are Alaeloa soil on Oahu and Haiku soil on Maui.

Vertisol



Lualualei Series, Oahu

Vertisols are soils that shrink when dry and swell when wet. They usually occur in valleys with poor drainage. They are fertile, but pose severe limitations for roads, housing, and related uses. The Lualualei soil on Oahu is an example.