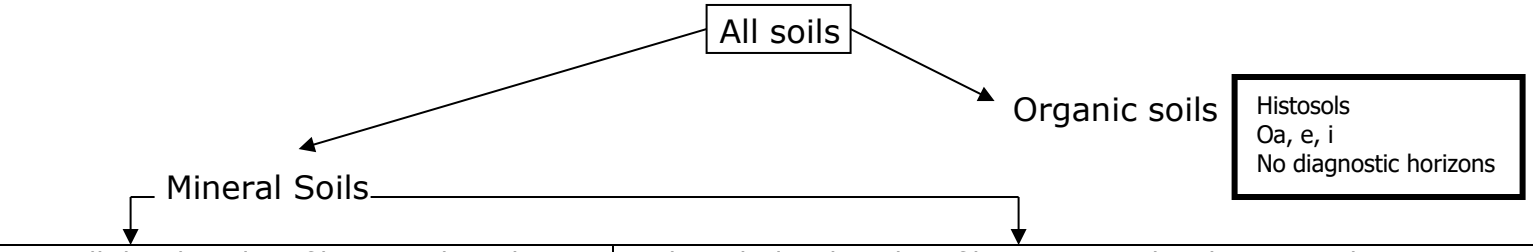
General Guide to Soil Orders



Soils without well developed profiles or soils with Unique parent materials					Soils with developed profiles associated with certain climate-vegetation zones						
Orders	Entisols	Inceptisols	Vertisols	Andisols	Aridisols	Gelisols	Mollisols	Alfisols	Ultisols	Oxisols	Spodisols
Key Factors	Undeveloped	Weakly Developed	High in expandable clays	Volcanic ash	Arid climate	Permafrost	Temperate grasslands	Temperate deciduous forest / savanna	Forested highly weathered acidic	Tropical climate, extremely weathered	Humid climate, sandy parent materials, acidic
Common Master Horizons	A C No B present Or B is sandy	A Bw, g, k, x C	A Bss C	Variable	A Bk, q, t, y, z C	Variable O Bf, ff, jj Cf, ff, jj	A – thick Bw, g, t, k C	A E (10yr5/1) Bt, tx C	A E Bt, tx C	A Bo C	A, E, Bh, hs, s, x C
Common Epipedon	Ochric	Ochric	Varies	Melanic	Ochric	Varies	mollic	Ochric	Ochric	Ochric	Ochric
Common Diagnostic Subsurface horizon	None	Cambic	Varies	Varies	Varies	Varies	Varies – none, cambic, calcic, argillic, natiric	High base argillic Albic often	Kandic or low base argillic Albic often	Oxic	Spodic & often Albic
Associated Clay	Parent dependent	Parent dependent	Mont. Smectite	Parent dependent	Mont.	Parent dependent	Mont. Verm.	Mont. Verm.	Kaolinite	Hemitite Limonite Goetite	
Dominant Pedogenic Process											

Soils with a unique geology **Geographically specific soils**