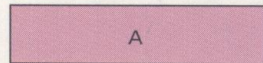


Of the ten soil orders which have worldwide distribution, Oregon includes nine. *Aridisols* are light-colored soils of dry regions; *Mollisols* have dark surfaces formed under grass; *Alfisols* are produced, under forests, by downward leaching of clay; *Ultisols* are similar but their bases have been more completely depleted; *Spodosols* reflect translocation of iron or aluminum and organic matter under forest; *Inceptisols* represent early stages of soil formation; *Vertisols* are dominated by swelling clays; *Histosols* are formed in organic deposits; and *Entisols* lack genetic horizons.

These soil orders may be further divided as follows: *Xeric* soils develop under summer-dry climates; *udic* soils under wet climates, and *aridic* soils where the climate is dry all year. The map illustrates 19 kinds of soil landscape, combining soil orders that occur in similar climates and terrain.

XERIC SOILS OF MODERATE RAINFALL WESTERN OREGON REGIONS

**Mollisols, Alfisols,
Vertisols and Ultisols of Valleys**



Soils of the Willamette Valley floodplain and terraces are dominantly deep, silty, moderately dark and somewhat acid. Poorly-drained soils are common. Soils of the southwestern valleys are generally less silty, more variable in depth and lighter-colored, although dark clay Vertisols are common. Reddish, strongly-leached Ultisols occur on older terraces and footslopes.

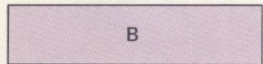
**Alfisols, Ultisols, Inceptisols, Mollisols
and Vertisols of Foothills and Mountains**



These uplands have a pronounced summer dry period. The soils are highly variable, but mostly dark at the surface, clayey and moderately acid in the north, becoming lighter-colored, less acid and less clayey in the south.

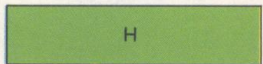
UDIC SOILS OF HIGH RAINFALL WESTERN OREGON REGIONS

**Spodosols, Inceptisols and Entisols
of Valleys and Coastal Lowlands**



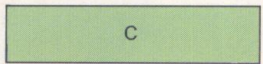
These soils are strongly acid, mainly dark and deep. Poorly drained, clayey soils are common in the stream valleys and estuaries. Gravelly soils predominate in western Cascade valleys. Sandy Spodosols, commonly with iron-cemented subsoils, occur on lower coastal terraces; Entisols on younger dunes.

**Inceptisols and Ultisols of the Coast
Range and Western Cascade Mountains.**



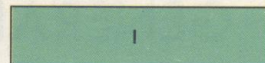
These areas are steep and heavily forested. The soils are mostly dark, loamy or clayey. Shallow, stony soils are common with deeper, reddish, clayey Ultisols on smoother, more stable slopes.

**Inceptisols, Alfisols and Ultisols
of the Western Klamath Mountains**



These soils are dominantly light-colored, medium to slightly acid, loamy, and commonly stony and shallow. Granitic areas have sandy soils and serpentine areas have mostly shallow, reddish, clayey soils.

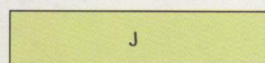
**Inceptisols, Spodosols and
Entisols of High Mountains**



Soils of the forested higher elevations are mostly dark, moderately to strongly acid, shallow and stony. Light-colored, coarse-textured Entisols and Spodosols occur on glacial deposits.

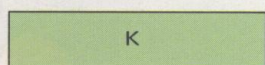
XERIC SOILS OF MODERATE RAINFALL EASTERN OREGON FORESTED REGIONS

**Entisols and Spodosols of the
Central Oregon Pumice Plateau**



Soils formed on coarse pumice are mostly light-colored, coarse-textured, and moderately to slightly acid. Strongly acid Spodosols with subsoils of iron accumulation have formed at higher elevations. Poorly-drained soils occur in depressions.

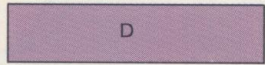
**Mollisols and Inceptisols of
the Mountains**



Soils of the mountainous lava plateaus are mostly dark, moderately to slightly acid, loamy, moderately deep or shallow and stony. Tuffaceous bedrock areas have clayey soils. Light-colored, silty Inceptisols from volcanic ash occur on broad plateaus and northerly slopes.

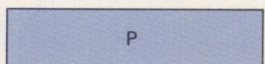
XERIC SOILS OF MODERATELY LOW RAINFALL EASTERN OREGON GRASSLAND REGIONS

Mollisols of the Valleys



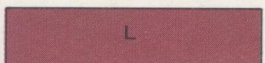
These soils are formed on floodplains and terraces, old lakebeds, or glacial deposits, and their textures vary widely. Most are dark, slightly acid and deep, but some have hardpans. Poorly-drained and salt-affected soils are common.

**Mollisols, Histosols and Inceptisols
of Cold, Wet Valleys**



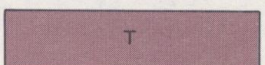
These valleys have both dark and light-colored, mostly poorly drained soils formed in pumice or organic deposits.

**Moderately Dark-Colored Mollisols
of Loess-Mantled Plateaus**



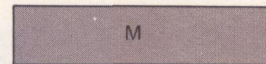
Deep, silty soils with free lime in the lower subsoil predominate at lower elevations. Organic matter and depth of leaching gradually increase with elevation. Loess depth decreases to the south with moderately deep soils on plateau tops and shallow, stony soils on valley slopes.

**Dark-Colored Mollisols
of Loess-Mantled Plateaus**



These silty, slightly acid soils are mostly deep on lower hills and variable on steep terrain.

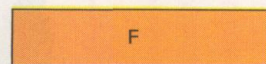
**Mollisols of Bedrock
Hills and Plateaus**



These soils are dark or moderately dark and slightly acid or neutral. The soils are mostly shallow and stony. Some areas have deeper soils formed from clayey sedimentary rock or wind deposits.

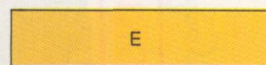
ARIDIC SOILS OF LOW RAINFALL EASTERN OREGON SHRUB-GRASSLAND REGIONS

**Aridisols and Entisols
of Warm Basins**



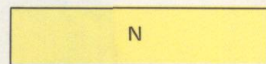
These soils are mainly light-colored calcareous or neutral, and deep although hardpans are common. Sandy soils predominate in the Columbia Basin. Most soils of the Snake River Valley are silty, and some have clayey subsoils over hardpans. Many of the soils on floodplains are poorly drained and salt-affected.

**Aridisols of Cool
and Cold Basins**



Many semi-arid basins formerly held large pluvial lakes and the soils are formed in deposits ranging from sand or gravel to clay. They are light-colored and neutral or calcareous. Many are poorly drained and salt-affected, and many have shallow hardpans.

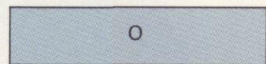
Aridisols of Uplands



Most of these soils are on lava plateaus or plains. They are shallow, stony and light-colored with clayey or loamy subsoils.

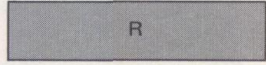
MISCELLANEOUS AREAS WHERE RELIEF OR BEDROCK DOMINATE SOIL FORMATION

**Mollisols, Entisols and
Inceptisols above Timberline**



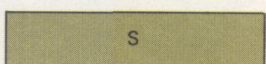
These high mountain areas include alpine grasslands, bare peaks and glaciers. The soils are mainly dark, coarse-textured and very cold.

Barren Lava Flows



Soils have not yet formed on these recent lava flows.

**Mollisols, Aridisols and Inceptisols
of Canyon Lands**



Canyon lands include major areas of steep, dissected terrain. The soils are shallow and stony with many rock outcroppings.

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