

The Pedon 17 series consists of very deep, well drained soils formed in alluvium from mixed rock sources. Pedon 17 soils are on terraces and have slopes of 2 to 25 percent. The mean annual precipitation is 30 inches and the mean annual temperature is 57 degrees F.

TAXONOMIC CLASS:

TYPICAL PEDON: Pedon 17 loam - on a nearly level slope of 2 percent under irrigated walnuts at 1,380 feet elevation. (Colors are for dry soil unless otherwise stated. When described on July 16, 1978, the soil was dry to 6 inches and slightly moist below.)

_____ --0 to 5 inches; light yellowish brown (10YR 6/4) loam, brown or dark brown (7.5YR 4/4) moist; massive; hard, friable, slightly sticky and slightly plastic; common very fine roots; few fine tubular pores; 6 percent pebbles 2 to 50 mm in diameter; very strongly acid (pH 4.6); abrupt smooth boundary.

_____ --5 to 19 inches; strong brown (7.5YR 5/6) loam, dark brown (7.5YR 3/4) moist; moderate very fine and fine granular structure; slightly hard, very friable, slightly sticky and plastic; common very fine and fine, and few coarse roots; common very fine, fine and medium tubular and many very fine interstitial pores; 2 percent pebbles 5 to 20 mm in diameter; medium acid (pH 5.6); gradual wavy boundary (combined A horizon thickness ranges from 4 to 20 inches.)

_____ --19 to 28 inches; strong brown (7.5YR 5/6) loam, yellowish red (5YR 5/6) moist; weak fine and medium subangular blocky structure; slightly hard, friable, sticky and plastic; common fine and few medium roots; common very fine, fine and medium tubular and very fine interstitial pores; few thin clay films on peds and in pores; 4 percent pebbles and 5 percent black shot 5 to 20 mm in diameter; slightly acid (pH 6.1); clear irregular boundary. (12 to 25 inches thick)

_____ --28 to 43 inches; variegated strong brown (7.5YR 5/6) and yellowish red (5YR 4/6) clay loam, yellowish red (5YR 4/6) and dark red (2.5YR 3/6) moist; weak fine and medium angular blocky structure; slightly hard, friable, sticky and very plastic; few very fine roots; common very fine and fine tubular and fine interstitial pores; common moderately thick and thick clay films on peds and in pores; 5 percent pebbles 2 to 20mm in diameter; medium acid (pH 6.0); gradual wavy boundary. (10 to 20 inches thick)

_____ --43 to 56 inches; variegated yellowish red (5YR 4/6) and strong brown (7.5YR 5/8) clay loam, dark red (2.5YR 3/6) and strong brown (7.5YR 5/6) moist; weak fine and medium angular blocky structure; hard, friable, sticky and plastic; few very fine roots; common very fine and fine tubular and fine interstitial pores; many moderately thick and thick clay films on peds and in pores; 2 percent pebbles 2 to 20 mm in diameter; medium acid (pH 5.7); clear wavy boundary. (20 to 27 inches thick)

_____ --56 to 84 inches; variegated yellowish red (5YR 4/6) and strong brown (7.5YR 5/8) clay loam, dark red (2.5YR 3/6) and strong brown (7.5YR 5/6); moist; weak coarse angular blocky structure; hard, friable, sticky and plastic; few very fine tubular pores; common moderately thick clay films on peds and in pores; 12 percent pebbles 2 to 75 mm in diameter; strongly acid (pH 5.4).

TYPE LOCATION: Lake County, California; approximately 225 feet south of Hartley Cemetary Road on Scotts Valley Road, then approximately 50 feet east of road; approximately 2,000 feet north and 1,300 feet west of the southeast corner of Sec. 14, T. 14 N., R. 10 W., MDB&M.

RANGE IN CHARACTERISTICS: Thickness of the solum and depth to unconsolidated sediments is greater than 60 inches. The mean annual soil temperature is 59 degrees to 62 degrees F. The soil between the depths of 7 and 20 inches is dry in all parts from June 1 to October 15 and is moist in all parts from January 1 to April 15. Base saturation (sum of cations) is 50 to 75 percent throughout. Reaction is very strongly acid to neutral throughout. The particle-size control section averages 25 to 35 percent clay and 5 to 30 percent pebbles. Clay mineralogy is mixed, but contains a high percentage of kaolinite.

GEOGRAPHIC SETTING: Pedon 17 soils are on terraces and have slopes of 2 to 25 percent. They formed in alluvium from mixed rock sources. Elevations are 1,000 to 1,600 feet. The climate is subhumid with warm, dry summers and cool, moist winters. Mean annual precipitation is 25 to 40 inches. Mean January temperature is 42 degrees F; mean July temperature is 68 degrees F; mean annual temperature is 55 degrees to 59 degrees F. Frost-free season is 160 to 205 days.

DRAINAGE AND PERMEABILITY: Well drained; slow to rapid runoff; slow permeability.

USE AND VEGETATION: This soil is mainly for walnut orchards, wine grape vineyards, homesite developments, hay and pasture and livestock grazing. Natural vegetation is annual grasses and forbs with scattered blue oak and manzanita.

DISTRIBUTION AND EXTENT: Clear Lake Basin in Lake County, California. The series is not

extensive.