

Pedon 19

Pedon 19 consists of deep and very deep, well or moderately well drained soils formed in old alluvium from granitic rock sources. Pedon 19 soils are on nearly level to hilly dissected terraces and have slopes of 2 to 30 percent. The mean annual precipitation is about 16 inches and the mean annual temperature is about 60 degrees F.

TAXONOMIC CLASS:

TYPICAL PEDON: a coarse sandy loam - on a north facing slope under annual grasses with scattered oaks at 150 feet elevation. When described on June 17, 1986, the soil was moist below 20 inches. (Colors are for dry soil unless otherwise stated.)

____--0 to 4 inches; brown (10YR 5/3) coarse sandy loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine roots; many very fine interstitial and common very fine tubular pores; moderately acid (pH 6.0); abrupt wavy boundary. (4 to 10 inches thick)

____--4 to 11 inches; brown (10YR 5/3) coarse sandy loam, brown (10YR 4/3) moist; weak medium angular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine and few fine roots; many very fine interstitial and many very fine, fine and medium tubular pores; moderately acid (pH 6.0); gradual wavy boundary. (5 to 8 inches thick)

____--11 to 20 inches; light reddish brown (5YR 6/4) coarse sandy loam, reddish brown (5YR 4/4) moist; moderate medium angular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine interstitial and many very fine, fine and medium tubular pores; moderately acid (pH 6.0); abrupt smooth boundary. (2 to 10 inches thick)

____--20 to 34 inches; light reddish brown (5YR 6/4) sandy clay loam, reddish brown (5YR 4/4) moist; moderate medium subangular blocky structure; hard, friable, sticky and plastic; few very fine roots; few fine tubular pores; common thin clay films bridging sand grains, on ped faces and lining pores; common fine black (N2/0) manganese stains; moderately acid (pH 6.0); gradual smooth boundary. (10 to 16 inches thick)

____--34 to 43 inches; light reddish brown (5YR 6/4) sandy clay loam, reddish brown (5YR 4/4) moist; weak medium subangular blocky structure; hard, friable, sticky and plastic; few very fine roots; few fine tubular pores; common thin clay films bridging sand grains, on ped faces and lining pores; common fine black (N2/0) manganese stains; moderately acid (pH 6.0); abrupt smooth boundary. (8 to 12 inches thick)

____--43 to 55 inches; light reddish brown (5YR 6/4) coarse sandy loam, reddish brown (5YR 5/4) moist; massive; loose, nonsticky and nonplastic; many very fine interstitial pores; few thin clay films bridging sand grains; common fine black (N2/0) manganese stains; slightly acid (pH 6.1); abrupt smooth boundary. (11 to 31 inches thick)

____--55 to 60 inches; yellowish red (5YR 5/6) and reddish yellow (5YR 6/6) weakly

cemented sandy loam, reddish brown (5YR 5/4, 4/4) moist; very hard and dense, brittle, nonsticky and nonplastic; cementation decreases slightly with increasing depth; few very fine interstitial pores; common thin clay films in pores and bridging sand grains; 5 percent pebbles; slightly acid (pH 6.1).

TYPE LOCATION: San Joaquin County, California; 100 feet south and 1,980 feet west of the northeast corner of sec. 35, T.3N., R.8E., Linden quadrangle.

RANGE IN CHARACTERISTICS: Dense weakly cemented layers are at depths of 40 to 60 inches. The mean annual soil temperature is 64 to 67 degrees F and the temperature remains above 47 degrees F throughout the year. The soil is dry between 6 and 18 inches in most years from June 1 to October 15, moist in all parts from Dec 1 to May 1 and moist in some part the rest of the year.

GEOGRAPHIC SETTING: Profile 19 soils occur on nearly level to hilly dissected terraces formed on old alluvium from granitic rock sources. Slopes are 2 to 30 percent. They occur at elevations of 100 to 500 feet in a dry subhumid climate with mean annual rainfall of 10 to 20 inches, with hot dry summers and cool moist winters. Mean annual temperature is 60 to 62 degrees F., average January temperature 43 degrees F., and average July temperature 78 to 81 degrees F. Frost-free period ranges from 250 to 300 days.

DRAINAGE AND PERMEABILITY: Well or moderately well drained; medium to slow runoff depending on slope; moderately slow permeability (dense substratum phase has very slow permeability below a depth of 40 inches).

USE AND VEGETATION: Used for dry farmed grain, vineyards, orchards and rangeland. Vegetation is annual grasses and forbs with scattered oaks.

DISTRIBUTION AND EXTENT: Eastern edge of lower Sacramento and San Joaquin Valleys, California.