

**Pedon 10**

The Pedon 10 consists of very deep, poorly drained soils that formed in fine textured alluvium derived from sandstone and shale. Pedon 10 are in basins and in swales of drainageways. Slopes are 0 to 2 percent. The mean annual precipitation is about 20 inches and the mean annual air temperature is about 60 degrees F.

**TAXONOMIC CLASS:**

**TYPICAL PEDON:** Pedon 10, annual pasture. (Colors are for dry soil unless otherwise stated when described there was a watertable at 48 inches).

\_\_\_\_\_ --0 to 13 inches; dark gray (N 4/0) clay, very dark gray (N 3/0) moist, few fine faint redoximorphic concentrations; strong medium granular structure at the surface and strong very coarse prismatic structure below when dry, massive when wet; very hard, firm, very sticky and very plastic; many fine roots; common very fine and fine pores; grass seeds, grass and burned plant remains in cracks and along cleavage planes; neutral (pH 7.0); gradual wavy boundary. (4 to 15 inches thick)

\_\_\_\_\_ --13 to 19 inches; dark gray (N 4/0) clay, very dark gray (N 3/0) moist; strong coarse prismatic structure when dry, massive when wet; extremely hard, very firm, very sticky and very plastic; many fine roots; many very fine and fine pores; many slickensides; grass remains in cracks and along cleavage planes; moderately alkaline (pH 8.0); clear wavy boundary. (5 to 10 inches thick)

\_\_\_\_\_ --19 to 45 inches; dark gray (N 4/0) clay, very dark gray (N 3/0) moist; strong coarse prismatic structure; extremely hard, very firm, very sticky and very plastic; few roots; few pores; many slickensides; few fine concretions; smooth pressure faces on peds; slightly calcareous; moderately alkaline (pH 8.0); diffuse irregular boundary. (10 to 35 inches thick)

\_\_\_\_\_ --45 to 60 inches; grayish brown (2.5Y 5/2) clay, light olive brown (2.5Y 5/4) moist; tongues of very dark grayish brown (2.5Y 3/2) moist in the upper part; light yellowish brown (10YR 6/4) masses of iron accumulations; massive; very hard, very firm, very sticky and very plastic; few fine roots; few very fine pores; few slickensides; few fine concretions; few soft lime masses; slightly calcareous; moderately alkaline (pH 8.0).

**TYPE LOCATION:** Solano County, California; 300 feet south, 300 feet east of northwest corner of sec. 25, T. 6 N., R. 2 E.

**RANGE IN CHARACTERISTICS:** The mean annual soil temperature is 59 degrees to 65 degrees F. On drying, large cracks extend as deep as 48 inches and form large prisms. The cracks open and close at least once each year and are open by June or July and are closed by October or November. Various amounts of undecomposed plant material and surface soil are in these cracks. Common to many slickensides are in the zone from 12 to 48 inches. These soils have a calcium to magnesium ratio of more than 2.

**GEOGRAPHIC SETTING:** Pedon 10 soils are in basins and in swales of level drainageways. Slopes are 0 to 2 percent. Elevations are 25 to 2,000 feet. The soils formed in fine textured alluvium derived from sandstone and shale or other mixed rock sources. The soils are in a dry subhumid climate of relatively hot dry summers and cool moist winters. Mean annual precipitation ranges from 10 to 35 inches. Mean January temperature varies from 42 degrees to 47 degrees F., mean July temperature varies from 69 degrees to 72 degrees F., and mean annual temperature varies from 58 degrees to 62 degrees F. The frost-free season is 160 to 300 days. Cooler temperatures and a shorter frost-free season occurs in Lake County.

**DRAINAGE AND PERMEABILITY:** Poorly drained; negligible to high runoff (if assumed concave runoff is always negligible); slow to very slow permeability. A water table is at depths of 4 to 10 feet in the late summer and in some areas is very near the surface during wet months of winter. Some areas are artificially drained.

**USE AND VEGETATION:** Used for growing many row crops such as tomatoes, beans and sugar beets, dry farmed to grain, or irrigated and dry farmed pasture. Also used for rangeland. Native vegetation is grasses and forbs.

**DISTRIBUTION AND EXTENT:** In small valleys of the Coast Range and along the San Joaquin and Sacramento Valleys.