LOCATION TIESIDE WY

Established Series
CHP/PSD/MCS
02/1999

TIESIDE SERIES

The Tieside series consists of very shallow and shallow well drained soils that are shallow to bedrock. They formed in material weathered from interbedded limestone, sandstone, and shale. Tieside soils are on uplands, structural benches, and strath terraces. Slopes are 1 to 15 percent. The mean annual precipitation is about 12 inches, and the mean annual temperature is about 43 degrees F.

TAXONOMIC CLASS: Loamy, mixed, superactive, frigid, shallow Ustic Haplocalcids

TYPICAL PEDON: Tieside sandy loam on a southwest-facing convex slope of about 8 percent-rangeland. (Colors are for air dry soil unless otherwise stated.)

A--0 to 4 inches; yellowish red (5YR 4/6) sandy loam, dark reddish brown (5YR 3/4) moist; weak very fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine, fine, and common medium roots; strongly effervescent, carbonates disseminated; moderately alkaline (pH 8.4); clear smooth boundary. (1 to 4 inches thick)

Bk1--4 to 13 inches; yellowish red (5YR 4/6) sandy loam, dark reddish brown (5YR 3/4) moist; massive; soft, very friable, slightly sticky and nonplastic; few very fine, fine, and common medium roots; strongly effervescent, carbonates disseminated and as few thin pendants on undersides of pebbles; 5 percent pebbles; moderately alkaline (pH 8.4); clear wavy boundary. (0 to 9 inches thick)

Bk2--13 to 19 inches; reddish brown (5YR 5/4) sandy loam, reddish brown (5YR 4/4) moist; massive; slightly hard, very friable, sticky and slightly plastic; very few fine and medium roots; violently effervescent, few fine soft masses and common moderately thick pendants on undersides of pebbles, 10 percent pebbles; moderately alkaline (pH 8.4); gradual wavy boundary. (6 to 8 inches thick)

Cr--19 inches; sandstone interbedded with limestone and shale; many feet thick.

TYPE LOCATION: Albany County, Wyoming; about two miles southwest of Tie Siding; approximately 500 feet west and 80 feet south of the NE corner of sec. 35, T. 13 N., R. 73 W.

RANGE IN CHARACTERISTICS: Depth to the paralithic contact is 7 to 20 inches. The mean annual soil temperature ranges from 40 to 47 degrees F., and the mean summer soil temperature ranges from 59 to 65 degrees F. Clay content of the particle-size control section ranges from 10 to 17 percent. Rock fragment content in the particle-size control section ranges from 5 to 30 percent and is dominantly coarse pebbles with some fine pebbles. The profile is calcareous throughout with a distinct increase in the Bk horizon. Carbonate content in the calcic horizon ranges from 30 to 50 percent. Reaction of the profile is mildly or moderately alkaline.

The A horizon has hue of 5YR or 7.5YR; value of 3 or 4 dry and moist; and chroma of 4 through 6 dry, 3 or 4 moist. Coarse fragments range from 5 to 15 percent coarse pebbles.

The Bk1 or Bw horizon has hue of 2.5YR through 7.5YR; value of 4 or 5 dry, 3 or 4 moist; and chroma of 4 through 6 dry, 3 or 4 moist. Texture is sandy loam or fine sandy loam with 5 to 15 percent coarse pebbles. In some pedons the Bk1 is not part of the calcic horizon.

The Bk2 horizon has hue of 2.5YR through 7.5YR; value of 5 through 7 dry, 4 or 5 moist; and chroma of 3 or 4 dry and moist. Calcium carbonate equivalent ranges from 20 to 50 percent. This horizon is a diagnostic calcic. Texture is sandy loam or coarse sandy loam modified with 10 to 30 percent pebbles. The Bk horizon subdivision will differ from pedon to pedon.

COMPETING SERIES: This is the Conpeak series. The Conpeak series has hue of 2.5Y or 10YR.

GEOGRAPHIC SETTING: The Tieside soils are on nearly level to moderately steep uplands, structural benches, and strath terraces. Slopes are 1 to 15 percent. These soils formed in weathered materials from interbedded limestone and redbed sandstone and shale. Elevation is 6,000 to 7,800 feet. The mean annual precipitation is 12 inches and ranges from 10 to 14 inches. The mean annual temperature ranges from 40 to 45 degrees F. The frost-free season is approximately 85 to 110 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the Pilotpeak and Wycolo soils. Pilotpeak soils have more than 35 percent rock fragments in the control section. Wycolo soils have argillic horizons and are moderately deep over bedrock.

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

USE AND VEGETATION: These soils are used for rangeland and wildlife habitat. Vegetation is mostly needleandthread, Indian ricegrass, western wheatgrass, and sagebrush.

DISTRIBUTION AND EXTENT: The basins of southeastern Wyoming. The series is of moderate extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Bozeman, Montana

SERIES ESTABLISHED: Albany County, (Albany County Area), Wyoming; 1991.

REMARKS: Diagnostic horizons and features recognized in this pedon are: Ochric epipedon - 0 to 4 inches (A horizon). Calcic horizon - the zone from approximately 4 to 19 inches (Bk1 and Bk2). Paralithic contact - at 19 inches (Cr horizon).

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