

Masada Series

The Masada series consists of well-drained, nearly level and gently sloping soils on stream terraces. These soils formed in alluvial sediment. A sediment high water table is below a depth of 5 feet.

In a typical profile, the surface layer is grayish-brown and pale-yellow sandy loam about 12 inches thick. The subsoil is about 24 inches thick. It is dominantly brownish-yellow, friable sandy clay loam in the upper part and brownish-yellow, friable sandy loam in the lower part. Below the subsoil, to a depth of about 60 inches, is brownish-yellow and pale-yellow sand and coarse sand.

Natural fertility and the content of organic matter are low, and available water capacity is medium. Permeability is moderate, and shrink-swell potential is low. In areas that have not received lime, reaction is strongly acid or very strongly acid.

The Masada soils in Pitt County are of only minor importance for farming, but most of the acreage is cultivated or in pasture. The rest is chiefly in forest and in housing developments or other nonfarm uses. Slope is the major limitation to use of these soils. Where crops are grown, response is good to recommended applications of fertilizer and lime.

Representative profile of Masada sandy loam, 0 to 4 percent slopes, 4 miles north of Grimesland, 80 feet west of State Road No. 1565, 90 feet north of Seaboard Coast Line Railroad, and 300 feet south of State Highway No. 33:

- Ap-0 to 7 inches, grayish-brown (2.5Y 5/2) sandy loam; weak, fine, granular structure; very friable; many small roots; medium acid; abrupt, smooth boundary.
- A2-7 to 12 inches, pale-yellow (2.5Y 7/4) sandy loam; weak, fine, granular structure; very friable; many small and few medium roots; strongly acid; clear, smooth boundary.
- B1t-12 to 15 inches, yellow (10YR 7/6) sandy loam; weak, medium, subangular blocky structure; friable; few medium roots and root channels; few, thin, patchy clay films on faces of peds; few fine mica flakes; strongly acid; clear, wavy boundary.
- B2t-15 to 30 inches, brownish-yellow (10YR 6/8) sandy clay loam; weak, medium, subangular blocky structure; friable, slightly sticky and slightly plastic; few medium roots and root channels; few, thin, patchy clay films on faces of peds; few fine mica flakes; strongly acid, gradual, wavy boundary.
- B3t-30 to 36 inches, brownish-yellow (10YR 6/8) sandy loam; weak, medium subangular blocky structure; friable; few, thin, patchy clay films on faces of peds; few fine mica flakes; very strongly acid; gradual, wavy boundary.
- IIC1-36 to 50 inches, brownish-yellow (10YR 6/8) sand; single grain; loose; few fine mica flakes; very strongly acid; gradual, wavy boundary.
- IIC2- 50 to 60 inches, pale-yellow (2.5YR 7/4) coarse sand; single grain; loose; many fine gravel fragments; very strongly acid.

Thickness of the solum is 40 inches or less. The A horizon ranges from 5 to 20 inches in thickness. The Ap or A1 horizon is dark gray, grayish brown, or dark grayish brown, and the A2 horizon is pale yellow to light yellowish brown. The B horizon is yellow or brownish-yellow to strong-brown sandy clay loam to sandy bottom and is 20 to 35 inches thick. The C horizon is commonly brownish-yellow to pale-yellow loamy sand to coarse sand. In places the C horizon lacks gravel.

Masada sandy loam, 0 to 4 percent slopes (MaB). –This is a well drained soil that occupies broad divides on stream terraces. It occurs in long narrow areas and in areas of irregular shape that range from 4 to 10 acres in size. The surface layer is grayish-brown and pale-yellow sandy loam about 12 inches thick. The subsoil is about 24 inches thick. It is dominantly brownish-yellow, friable sandy clay loam in the upper part and brownish-yellow, friable sandy loam in the lower part .

Included with this soil in mapping were a few areas of soils that have a similar profile but that have a surface layer of fine sandy loam, loamy fine sand, or loamy sand. Also included were small areas of Wickham, Altavista, Wagram, and Ocilla soils.

Infiltration is moderate. Runoff is slow to medium.

This soil is easy to keep in good tilth and can be satisfactorily worked throughout a wide range of moisture content. Most of the acreage is cultivated or in pasture. The rest is chiefly in forest and in housing developments or other nonfarm uses. This soil is well suited to all the locally grown crops, but erosion is a moderate hazard because of the slope. In cultivated areas practices that effectively control runoff and that reduce erosion are needed. Areas that are farmed are used mostly for row crops, especially for tobacco, peanuts, and cotton. Capability unit IIe-1; woodland suitability group 3o7.