

General Soil Information – Physical Properties

Soil Texture by Feel:

Remain in a ball? No → Sand

Forms a ribbon? No → Loamy Sand

Ribbon

< 1 inch long?

Gritty (Sandy loam)
Smooth (Silt loam)
Neither (Loam)
LOAM

Ribbon

1 – 2 inches long?

Gritty (Sandy clay loam)
Smooth (Silty clay loam)
Neither (Clay loam)
CLAY LOAM

Ribbon

> 2 inches long?

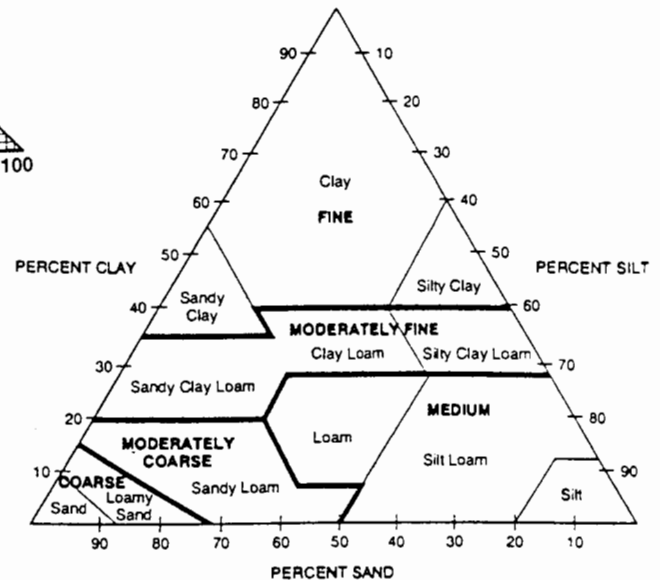
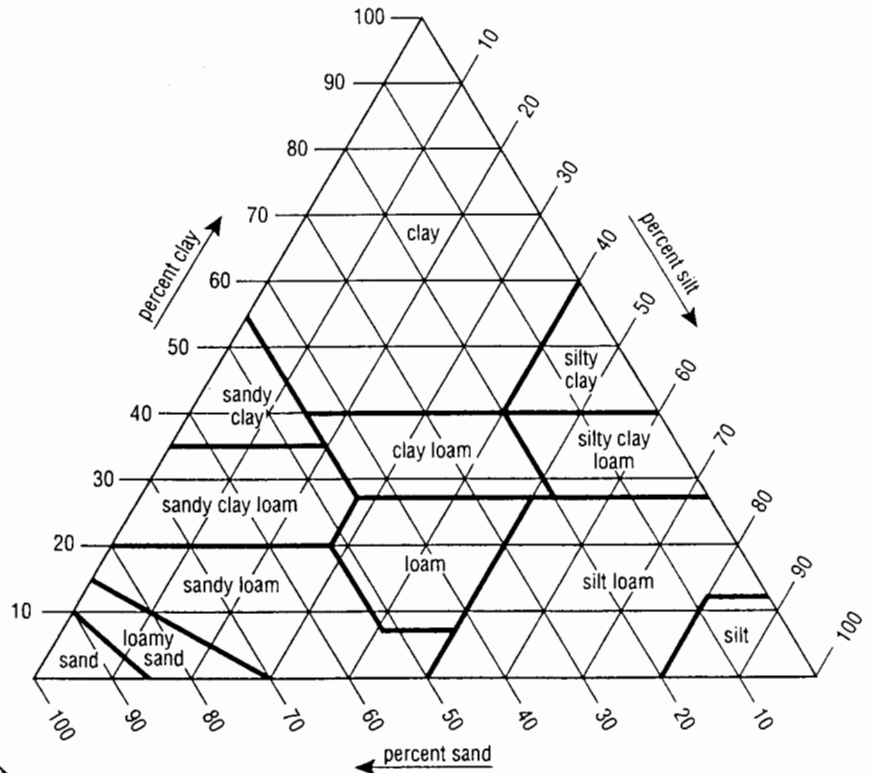
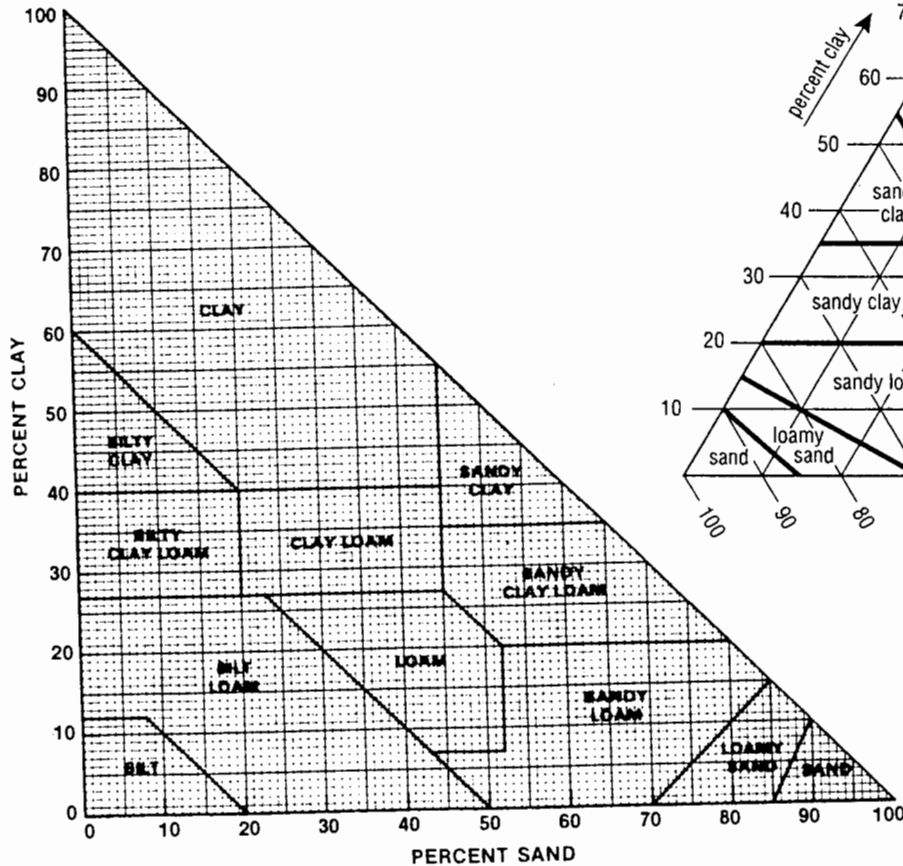
Gritty (Sandy clay)
Smooth (Silty clay)
Neither (Clay)
CLAY

Classes of Root Restricting Depth:

Very shallow: < 10 inches
Shallow: 10 – 20 inches
Moderately deep: 20 – 40 inches
Deep: 40 – 60 inches
Very deep: > 60 inches

Particle Sizes (Soil Separates):

Boulders: > 24 inches
Stones: 10 – 24 inches
Cobbles: 3 – 10 inches
Pebbles: 2 mm – 3 inches
Very coarse sand: 1 – 2 mm
Coarse sand: 0.5 – 1 mm
Medium sand: 0.25 – 0.5 mm
Fine sand: 0.1 – 0.25 mm
Very fine sand: 0.05 – 0.1 mm
Silt: 0.002 – 0.05 mm
Clay: < 0.002 mm



References:

- Gee, G.W. and J.W. Bauder. 1986. Particle-size analysis. In: Methods of soil analysis: Part I. Monograph No. 9, American Society of Agronomy, Inc. Madison, WI.
- Soil Survey Staff. 1993. Soil Survey Manual. Handbook No. 18. U.S. Department of Agriculture. Washington, D.C.