USDA SOIL TEXTURING FIELD FLOW CHART

Remove any material larger than 2 mm in size and start with a ping pong ball sized amount of soil. Add water drop-wise and knead the soil to break down all aggregates. Stop adding water when soil is plastic and moldable.

Place ball of soil in palm of your hand

Does soil hold together when squeezed? NO

Is soil too dry? NO

Is sediment too wet? NO

SAND

Add dry sediment

Does the soil form a ribbon? NO

LOAMY SAND

Does soil feel very gritty? NO

SANDY CLAY LOAM

Does soil feel very gritty? NO

SANDY CLAY

Is soil very sandy? NO

SANDY LOAM

Does soil feel very gritty? NO

SANDY CLAY LOAM

Is soil moderately sandy? NO

LOAM

Does soil feel slightly gritty? NO

CLAY LOAM

Does soil feel very gritty? NO

CLAY

Is soil moderately fine? NO

SILTY CLAY LOAM

Does soil feel smooth? NO

SILTY CLAY

Does soil feel smooth? NO

SILTY CLAY

TEXTURE MODIFIERS

Fragment Content % by Volume
< 15% No modifier
15% to <35% Add modifier
36% to <60% Add "very" with modifier
60% to 80% Add "extremely" with modifier
> 80% No modifier; use Size Class only

ROCK FRAGMENT MODIFIERS

Size Class & Quantity
Gravelly >15% but <35% gravel
Fine Gravelly >15% but <35% fine gravel
Medium Gravelly >15% but <35% med. gravel
Large Gravelly >15% but <35% large gravel
Very Gravelly >35% but <50% gravel
Extremely Gravelly >50% but <90% gravel
Cobbly >15% but <35% cobbles
Very Cobbly <35% but <60% cobbles
Extremely Cobbly >60% but <90% cobbles
Stony >15% but <35% stones
Very Stony <35% but <60% stones
Extremely Stony >60% but <90% stones
Bouldery >15% but <35% boulders
Very Bouldery <35% but <60% boulders
Extremely Bouldery >60% but <90% boulders

COMPOSITIONAL TEXTURE MODIFIERS

Organic Class
Grassy > 15% grassy fibers
Herbaceous >15% herbaceous fibers
Mossy >15% moss fibers
Mucky Minerals >10% but <17% fibers
Peaty Minerals >10% but <17% fibers
Woody >15% wood fragments or fiber