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CASE

Presentation Notes

Presentation The size of the matter Lesson

Notes from Presentation:

There are three main sizes of soil particles
- Sand
- Silt
- Clay

Sand - .05 - 2mm
- Round shape
- feels gritty

Attributes to Soil
- Adds porosity
- Reduces water holding capacity

Silt - .002 - .05mm
- Round shape but very small to detect
- Feel smooth but does not stick together very well

Attributes to soil
- moderately good for porosity
- helps water holding capacity

Clay - . Less than .002mm
. flat or platy
. Sticky when wet - ribbon test
. Bad for porosity
. Ties up water so plants cant use it

Testing for Particles

Field tests can be done to determine the presence of each particle

1. Moisten a sample of soil with water in your hand
2. Break up all ~~clouds~~ clods and add enough water to make a slurry
3. Rub a thin layer of slurry between your thumb and fingertips to isolate the Particles

Detection of Particles

. Sand is relatively easy to detect the gritty particles
. Wet Silts may seem slick like clay but not sticky
. Conduct a ribbon test to determine how much clay content is Present

Loams

. Loam that has less than 27% clay is a mixture of sand, silt, and clay
. Loam soils are considered to be the optimal soils for growing plants

AFNR Reflection Page

List five key points that are important to remember from this presentation.

1. three main sizes of soil particles
2. Sand adds porosity
3. Reduces water holding capacity - sand
4. Silt good for porosity
5. Clay is bad for porosity

List three ideas or concepts that this new information has in common with previous things learned.

1. Mineral matter is particle size
2. Soil size allows you to know how much water / air soil can hold
3. organic matter plays a factor in soil texturing

List questions or ideas that remain unclear about the information presented that should be asked for clarity at the appropriate time.

- I would like to try soil texturing
- it would be nice to see real samples of sand, silt, clay, and loam for real life comparison