WHAT KIND OF SOILS DO YOU HAVE?

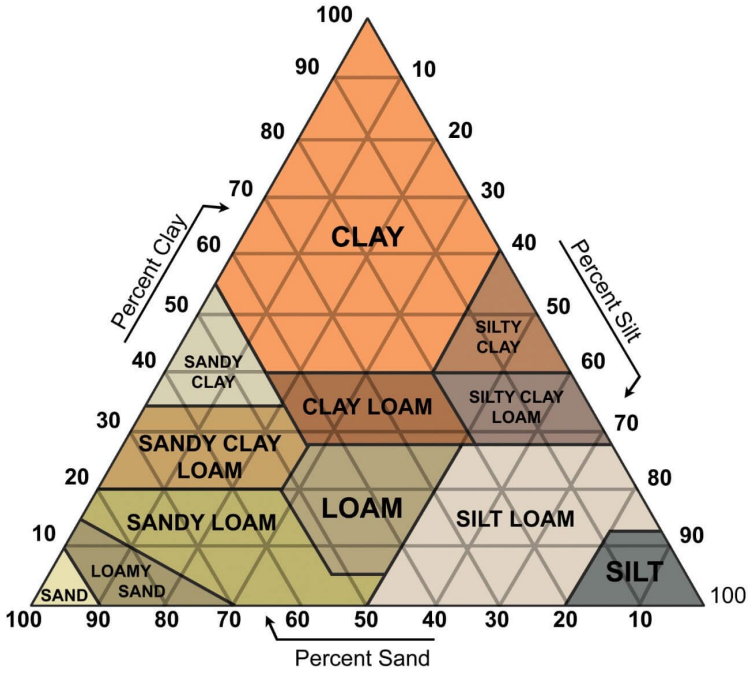
Its time to bring soils home to each and every one of you. Something that every one may be asking is What kind of soil do I have?!

Well, in southern Bruce County there are 43 soil types! Here is the link to the Bruce County soil maps if you would like to take a look for your location's soil type: **Soil Survey of Bruce County (agr.gc.ca).** As previously talked about, soils are made up of 3 (main) ingredients: sand, silt, and clay, and every soil type has a slightly different combination of the three.

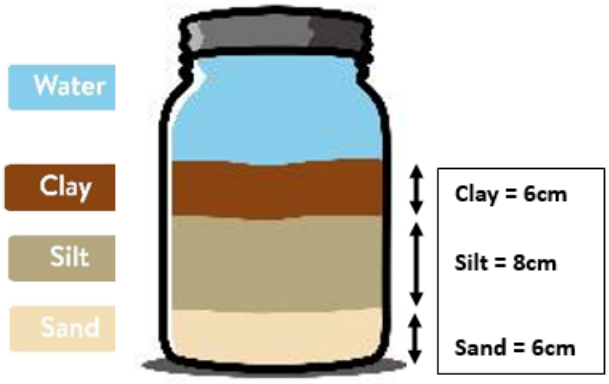
Pine River is predominantly Clay Loam, which is dark grey in colour (coming from the soil organic matter), has a heavier texture and poor drainage (both due to the tight plate like structure of clay - higher density and threadlike pore space). Now, what can we do with this information and why is it important to know your soil type? Knowing our soil type allows us to make good choices on how we treat and work with our soils. It allows us to determine: the best types of plants to have in our gardens, why existing plants are struggling, the drainage abilities and issues, and how we can improve both the quality of our soil through adding compost and the growth potential of our plants by adding fertilizer.

A simple test to determine your soil type is **The Sedimentation Test**, one that you can easily do at home! All you need is a jar with lid (1L mason jar), water, dish soap, marker or tape (to mark jar) and soil.
An example has been provided after the instructions.

1) Fill jar half full with soil.
    a. Take out any organic matter (roots, leaves, etc.) and rocks.
    b. Break up any large clods of soil.
2) Add a few drops of dish soap. This will help the soil particles separate and disperse in the water.
3) Add water, filling the jar to 90%.
4) Place lid on jar, shake vigorously for about 1 minute to ensure all soil gets mixed.
5) Leave jar on level surface.
    a. After 1-2 minutes the Sand will have settled at the bottom of the jar. Use marker or tape to mark the top level of Sand.
    b. After 1 hour the Silt will settle above the sand. Use marker or tape to mark the top level of Silt.
    c. After 24 hours the Clay will have settled above the Silt. Use marker or tape to mark the top level of Clay.
    (Anything floating at the surface will be organic matter.)
6) Measure the height of Sand in the jar, followed by Silt, then Clay.
    a. Then calculate the percentage of each: Sand, Silt, and Clay. i.e. (3cm Sand) / (Sand + Silt + Clay heights)
7) Use the Soil Textural Triangle to determine your soil type!
    a. Use the 3 percentages you determined above on the triangle below. The arrows below each soil component indicate which graph lines to follow through the triangle.
    The intersection of the 3 lines will determine your soil type.



Here is an **example** to get you on your way!
The test has already been put together and all soil layers have settled. The measurements of each layer are listed next to the jar and calculations determining percentage of each layer are on the very right.



Clay = 6cm

Silt = 8cm

Sand = 6cm

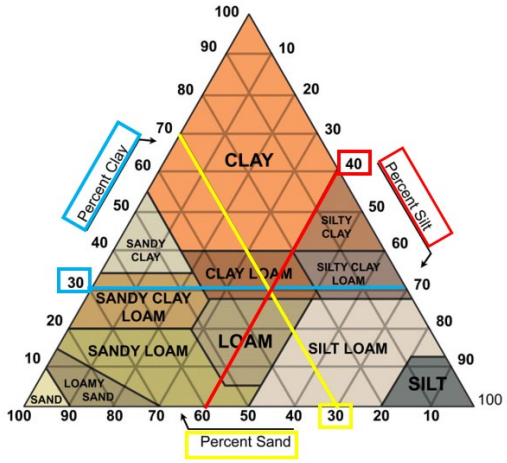
Calculating Percentage of Soil Layers

Total Height of Soil = 20cm

Clay: (6cm / 20cm) x 100 = 30%

Silt: (8cm / 20cm) x 100 = 40%

Sand: (6cm / 20cm) x 100 = 30%



Our Soil Type is …. CLAY LOAM!!