

# BASIC SITE ANALYSIS

Complete this basic site analysis to better understand your site needs and to make appropriate plant selections. The profile cards in The Garden Shop at Jenkins describe the needs and habits of every plant we sell. Armed with the knowledge of how sunlight, water, and people travel across your property, you can confidently select the best plants for your site.

## 1 CREATE A SIMPLE SITE DRAWING

Observe your site throughout the year, or reference photographs of your yard. Your site drawing doesn't have to be fancy, but it should clearly show the various areas of your yard. Indicate the cardinal directions, prevailing winds, and flow of water following a heavy rain. Are there slopes, pet areas, or existing trees? Be sure to note nearby Black Walnut trees in particular. These factors all influence plant growth and development.

## 2 ASSESS EXISTING CULTURAL CONDITIONS



- Full sun: 6+ hours per day (8-10 hrs for vegetables and fruits)
- Part sun: 5-6 hours per day
- Part shade: 4-5 hours per day
- Shade: Less than 4 hours per day

### Cardinal Directions

**North-facing** gardens receive less sunlight and tend to be colder and wetter than their south-facing counterpart.

**South-facing** gardens receive the most sunlight and tend to be warm and dry.

**East-facing** gardens receive morning sunlight and tend to be cooler than their west-facing counterpart.

**West-facing** gardens receive afternoon and evening sun and tend to be best for sun-loving plants.

Evaluate the sun, soil, water, and climate of your site:

How much **sun** do you have? During what hours? Know that afternoon sun is much stronger than morning sun.

What kind of shade do you have? Note there are different kinds of shade: the dappled shade of tall canopied deciduous trees is very different from the solid shade of evergreens or buildings. Knowing the type of shade will help with plant selection.

**Soil** is comprised of sand, silt, and clay particles, as well as organic matter, water, air, and living organisms. The relative percentages of sand, silt, and clay make up the soil's texture. The texture is important to overall soil and plant health. Perform a simple jar test with the instructions on the reverse to determine the percentages of sand, silt, and clay on your property.

Consider how **water** interacts with your site. Do you have an irrigation system, sprinklers, or easy access to a spigot? Are there any drainage issues? Are there permeable surfaces where rainwater can sink, slow, and spread?

Finally, take into account the **climate** of your site. Does your garden experience late frost, wind, or intensely hot days? Be aware that differences in light, topography, and slope can create microclimates within your site that may need to be managed differently.

## 3 CONSIDER HOW YOUR SITE IS USED

Think about how you currently use the space, and how you hope to use the space. Where do you walk? Where do you sit? Do you entertain outside? Are there views to enhance or hide? (Don't forget views from inside the house!) Do you have kids who need space to play? How much time do you have for garden maintenance? Decide the purpose of the space before beginning your design.

# SOIL TEXTURE ANALYSIS

Soil consists of inorganic particles and organic matter, and provides the structural support, water, and nutrients to plants. The composition of mineral fractions (sand, silt, and clay particles) makes up the soil's texture, which is critical to the overall soil and plant health.



## SIMPLE JAR TEST

Fill a quart jar two-thirds full of water, and gradually add a sample of soil until the water reaches the top of the jar. The sample should be cleared of sticks, pebbles and large chunks of organic matter and should include soil from at least 6" below the surface.

Seal, shake, and allow the contents of the jar to settle. Sand will settle first, followed by silt, and then the clay particles. The fine clay particles and organic matter may float. Wait 48 hours before taking measurements.



Complete the below calculations and use the soil texture triangle to estimate the soil type for the site.

Complete the following calculations:

Height of sand layer \_\_\_\_\_ inches / cm

Height of silt layer \_\_\_\_\_ inches / cm

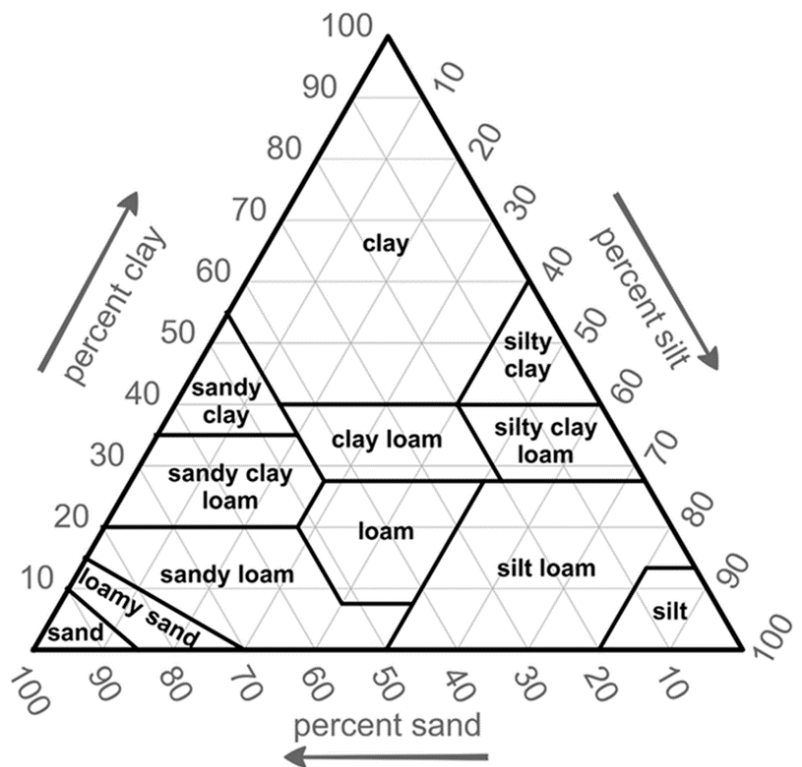
Height of clay layer \_\_\_\_\_ inches / cm

TOTAL HEIGHT OF LAYERS \_\_\_\_\_ inches / cm

$\frac{(\text{sand height})}{(\text{total height})} \times 100 = \underline{\hspace{2cm}} \% \text{ SAND}$

$\frac{(\text{silt height})}{(\text{total height})} \times 100 = \underline{\hspace{2cm}} \% \text{ SILT}$

$\frac{(\text{clay height})}{(\text{total height})} \times 100 = \underline{\hspace{2cm}} \% \text{ CLAY}$



Want help? Penn State extension can complete a relatively inexpensive soil test. Check for instructions on their website <https://agsci.psu.edu/aasl/soil-testing/fertility>.