

Spring Hill Soil Laboratory
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SOIL SAMPLE COLLECTION PROTOCOL

It's a good idea to have a very clear question in mind when you think about what to sample. What exactly is it that you want to learn, and how do we answer this within your budget? Examples of common questions are provided at the end of this document. **BEFORE you submit samples, please email or phone the lab to discuss your needs. We can help you decide on the most representative way to sample in order to answer the question/s you have about your soil and growing situation. Based on your question, the lab will provide you with individualised written instructions.**

Collect your sample the same day you intend to mail it in or have arranged to drop it off. In general, we ask for a minimum of 3 "soil cores" per analysis/sample (per ziplock bag), i.e, you would need to carefully push aside any undecomposed organic matter on the surface and take a hand-held apple corer or long, sharp gardening tool to remove a 3 inch deep by approximately 1 inch wide core of soil from 3 (or up to 5-6) different spots within the area to be tested. Ideally the cores would be taken from randomized spots within the sample area. Where you take these cores from depends on your question. When sampling areas with growing plants, take three cores per plant, half way between the stem and the dripline. When sampling bare soil, use a grid randomization method.

The cores for each sample should be put together in a new ziplock bag, no more than half full, and sealed with as much air as possible left inside (do not expel the existing air, and don't blow in the bag to add air – you could change the biology!). If the organisms run out of oxygen on their way to the lab, their community dynamics (and the representativeness of your results) will change.

Always label the outside of the bag with permanent marker. Microbes have been known to eat paper labels placed inside bags, which skews their numbers and makes identifying samples quite difficult. Label the outside of the bag with the following information:



- Date of collection
- Your name/location name
- The name of the sample (e.g. "bare soil", "weedy patch #1", "unhealthy blueberries", "heathy patch #1")
- Any other identifying information relevant to the sample, i.e, to match a key on a map that you may have created of your sampling area

It is important to email or phone ahead to confirm that your sample can be received and analysed during an appropriate time period BEFORE mailing or dropping off your sample. Please choose expedited shipping and only mail on a Monday or Tuesday, so the sample doesn't sit in a post office over the weekend.

COMMON QUESTIONS FOR ANALYSIS

I would like to reduce chemical inputs and convert to a biological approach. What is my soil food web baseline? (i.e, which micro-organisms are "home" in my soil, and what functions can I expect from them?)

I am growing an entire field of (insert crop name). Why are some plants thriving and others are looking sick?

Why are my yields of (insert crop name) reducing over time?

I would like to grow (insert crop name). Is the soil food web suitable for it to thrive?

My friend grows beautiful (insert crop name) but mine just don't seem to do as well. Why?

What is going on in the bare/weedy patches in my otherwise healthy field?



I have applied (insert name of amendment/input/growing strategy). How has this affected the existing soil food web community?

I am having a problem with (insert pest name). What is the state of the soil food web where the affected plants are growing?

What is the state of the soil food web in this bare field/bare garden bed that has been recently tilled/dug over and is awaiting cultivation? To what plants would it be suited?

I am curious about an area with various different features (hillsides, ridges, depressions, etc). How does the soil food web compare in each of these areas? What would grow best in each of these areas?

This area, either recently or in the past, suffered (insert event). How has this affected the soil food web present, and what can I grow here?