



## Proper Collection Protocol for Different Samples

### Compost Sample Collection Protocol

Take **1 tsp** (approx 4 grams or 4 ml) from a minimum of **5 different areas** from a small compost pile or 20 different areas from a large windrow and mix in a bag. Take the teaspoons from **various locations** and depths within the pile and subsequently combine them **into a single labeled** (permanent marker on OUTSIDE of bag) sandwich-sized plastic bag.

Doing this helps ensure that the sample is representative of the entire pile.

For any single sample, please ensure that you **do not fill the bag more than half-way** with material. \

Seal the bag **with the air left inside it** – do not expel the air from the bag, as this will limit the oxygen available to the biology in the sample which may result in anaerobic conditions being formed.

**Labelling:** All sample bags should be labeled with the sampling date, name of the sample (this will be the Sample ID on the order form) on the **\*outside\*** using a permanent marker or an affixed label. Please do not put any identifying information about your sample on a piece of paper and place it inside the bag. The paper will disintegrate, become food for microbes, and potentially change the biology of your sample.

### Soil Sample Collection Protocol

#### Scenario A: For Healthy Crops, Weedy Patches, Sick Plants, Bare Patches, etc., in the same field.

1. Draw a map of the land you are working on and number each areas being sampled on the map. You will need to create an index so you can identify what each numbered area represents – see the example in Figure 1 at the bottom of this section.
2. Take at least 3 core-samples from a single weedy-patch and place the core samples in a bag. An apple corer works well for this. Then label this bag (using a permanent marker) and index it using a clear numbering system (e.g. W1), marking the reference on your map so you know precisely where it came from. Make some notes on any distinguishing features that may be apparent e.g. “This is in a depression” or “This is where the farmer had previously-stored 2 tonnes of lime last year” etc.
3. Move to another weedy-patch and take a further 3 core-samples, placing these core-samples in a different bag. Label and index the bag appropriately (e.g. W2) and mark the reference on the map. Make notes as appropriate.
4. Continue this process until you have collected samples from a representative number of weedy-patches, say 40%, of the total number of weedy patches in the field being assessed.
5. Comparing results should give you a good indication of what is happening across your weedy patches. You may find that in most cases the conditions are similar, but that there are some patches that are very different from the average - in such cases, you may wish to investigate a little. Or you may later realize that there was a depression in that locality that you’d previously missed.

Repeat steps 1-5 above for Healthy Plants using a different reference e.g. H1, H2 ... etc.

Then repeat the process for sick plants and so on.



### **Scenario B: No plants growing, just bare soil (e.g. in a field that was recently tilled and not yet planted)**

For each field:

1. Take 3-4 samples from each of 5-6 areas per acre (more if the field is larger), selecting these at random, ensuring that they are well distributed over the area of the field you are working on. Avoid going right to the boundary of the field and to any areas that are not representative of the field e.g. the ridge line or a depression. Make sure to mark the areas you are sampling on the map, as this information may be useful later in your investigation, particularly if you get some unexpected results.
2. Place all of these samples in the same bag and mix well before analyzing.
3. Label the bag Bare Soil. This will give you an insight into the general conditions across the field you are working on. You must repeat steps 1-3 for each individual field or paddock - using different sample bags for each.

### **Scenario C: Varying conditions & features e.g. Ridges, depressions, etc....**

1. Study the landscape carefully and map-out the various prominent features.
2. Take 5-6 samples from each of these areas and place them in separate bags.
3. Label each bag and use the numbering system you have established so that you can mark these on your map. These results will inform you of the biological conditions in each of the individual areas being assessed.

For any single sample, please ensure that you do not fill the bag more than half-way with material. (Note: to reduce the amount of sample material, you may combine and thoroughly mix the sample material separately, in a sterile container, and then place a smaller amount of the mixture in the sandwich bag).

Seal the bag with the air left inside it – do not expel the air from the bag, as this will limit the oxygen available to the biology in the sample which may result in anaerobic conditions being formed.

**Labelling:** All sample bags should be labeled with the name of the sample on the **\*outside\*** using a permanent marker or an affixed label. Please do not put any identifying information about your sample on a piece of paper and place it inside the bag. The paper will disintegrate, become food for microbes, and potentially change the biology of your sample.

### **Liquid Sample Collection Protocol - Call the Lab prior to sending liquid samples.**

1. Pour liquid into a clean, not-breakable 4 to 8 oz container with a sealable opening (e.g. plastic water bottle with screw cap). Clean the inside of the container if you are not certain that the bottle held only water previously.
2. Fill the container  $\frac{1}{3}$  full of the liquid you want to have assessed. Leave the remainder of the container empty to maximize headspace for air exchange.
3. Once the screw cap is tightly sealed, cover it with duct tape and place it in a sealed plastic bag.
4. Be sure that the container is clearly labeled with the name of the sample on the **\*outside\*** using a permanent marker or an affixed label.

Following the above instructions will ensure that the sample being analyzed is representative of your growing area. Failure to follow these steps can drastically alter the results rendering the information unreliable. All soil tests are non-refundable. Please use care when collecting samples and mailing them to the lab. If you have any questions at all, please call the lab at (970) 314-0227.