

Soil Redemption soil collection protocols

Address to send your sample/s

Keythorpe Hall, Uppingham Rd, Leicester LE7 9XJ

In this document you will find out all the information you need on how to send a sample from any of the four protocol scenarios below.

1. Compost.
2. Garden beds.
3. Fields and land.
4. Liquids.

What kind of bag to send your sample in and how to prepare it

All sample bags (zip lock plastic bag/sandwich bag) should be labelled with your name, the name of the sample, and the date 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.

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.

Send all samples to the address at the top of this page under the title ‘Address to send your sample/s’

1. 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 labelled sandwich-sized plastic bag. Doing this helps ensure that the sample is representative of the entire pile.

2. Garden beds collection protocol

For a typical vegetable bed around 10ft by 3/4ft, choose 3 random spots within the bed. Using an apple core, dig down 3 inches. (3 inches gives us a good reflection of the microbiology around the root zone. If you don't have an apple core, you can use any other equivalent tool). Put each of 3 core samples into a zip lock plastic bag (sandwich bag). If you want to send a sample from a different bed repeat the process, and place into different bag, keeping all samples in different bags.

NOTE:

If you want to understand the biology in the soil from which the healthy plants are growing in, choose 3 random healthy plants and take a soil sample from around those plants.

If you want to understand the biology in the soil from which the sick plants are growing, choose 3 random sick plants and take a soil sample from around those plants.

If you want to understand the biology in the soil from which the weedy plants are growing, choose 3 random weedy plants and take a soil sample from around those plants.

If collecting samples from beds with plants (healthy, sick, or weedy) the cores should be collected halfway between the stem of the plant and the plants dripline (The dripline is the outermost circumference of the plants canopy, from which water drips onto the ground. The 'dripline area' is taken to include the soil and roots that lie within that circumference) See the diagram below.



The red arrow indicates the best distance to take your sample core when taking a sample next to plant. It doesn't have to be perfect.

3. Soil Sample Collection for fields and land etc.

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 area 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. 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 further by asking the farmer if he did something different in that area. 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. Comparing the results from each of these areas will offer you an insight into the overall state of the land you are working 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 analysing.
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....

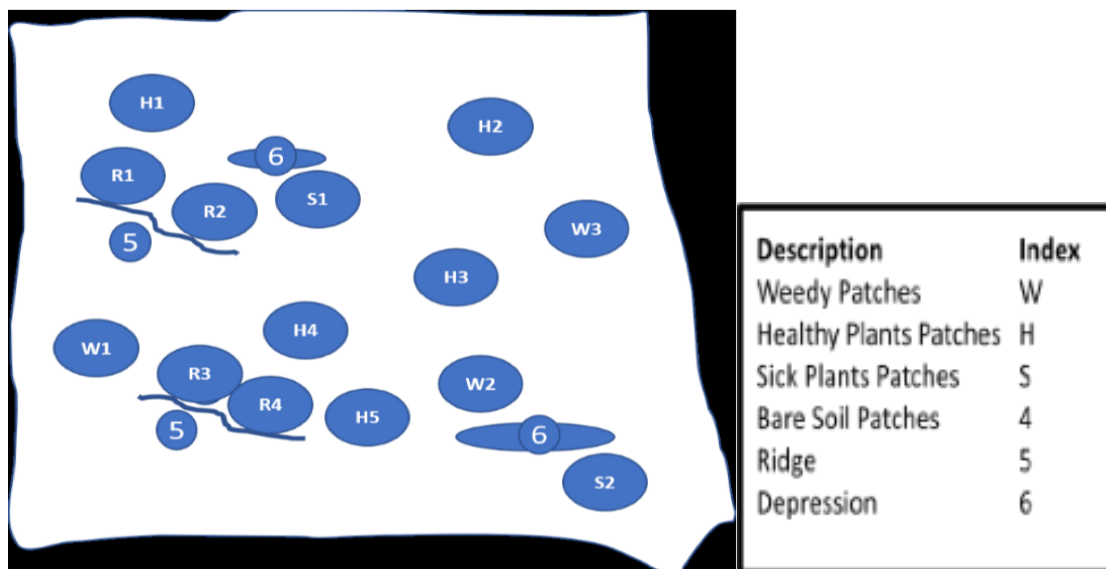
1. Study the landscape carefully and map-out the various prominent features.
2. Take 5-6 samples from each of these areas and place them in *separate* bags.
3. Label each bag and use the numbering system you have established so that you can mark these on your map.

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.

Figure 1 - Example of a map & index:



4.Liquid Sample Collection Protocol

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.

1. Fill the container 1/3 full of the liquid you want to have assessed. Leave the remainder of the container empty to maximize headspace for air exchange.
2. Once the screw cap is tightly sealed, cover it with duct tape and place it in a sealed plastic bag.
3. Be sure that the container is clearly labelled with the name of the sample on the *outside* using a permanent marker or an affixed label.

End