Protocol - Farmer testing of the mySoilSample app for soilquality.org.uk

The testing version is the Browser version, it will work on the phone, computer or other devices, but it will only work where there is data connectivity.

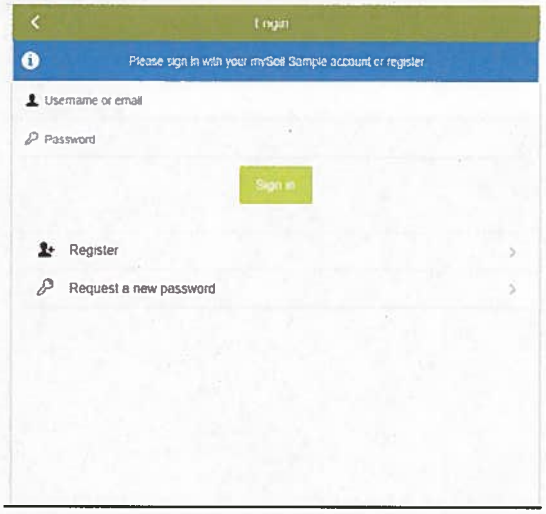
Offline working with later upload/ synchronisation of your records will become standard when this testing version is transformed to the full app version. However, transferring it to this stage for testing slows down our capacity to carry out updates / fixes to the system and work on agile development. Hence we know that we will make you grumpy as data connectivity will be a key limitation of the test system -- but bear with us.

Before carrying out any sampling

- The mysoilsample app can be found at the website: (https://mss-app.herokuapp.com)
- It is designed as an app – hence it works best on a phone or tablet screen

- The first time you log on you will need to REGISTER

- If you click to Add a sample – but have not registered then the app will take you to the registration screen



- You will enter some basic details including your Email (which will become your id) and password; this will make you a unique user within the system
- The registration process is carried out via the app but it is also the registration for the web portal where sample records are stored; https://mysoilsample.org
- You will receive a verification link to your Email after registering and it is important that you click on this link to complete the registration.
- All the samples you create on the app will now be associated with this unique log-in

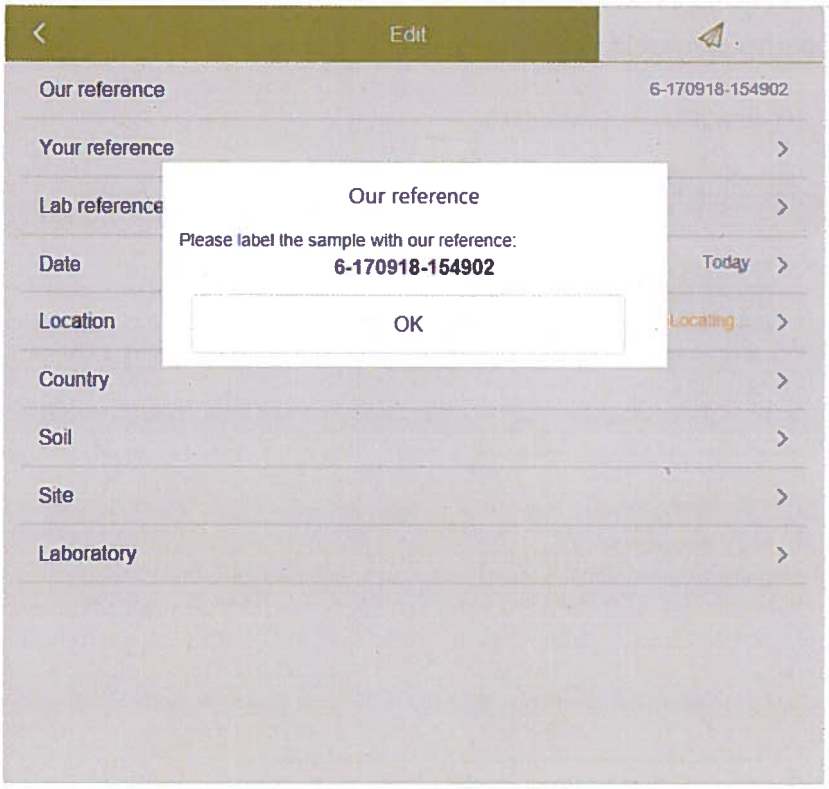
- *In time you will be able to associate your user id with some groups (e.g. agronomy group, NIAB membership, buyer group, catchment) – these are the groups with whom you would like to share data. Soilquality.org.uk groups will be created from your sample location, rotational land use etc; this information will be collected for each site when you record the sampling site information.*

For each sampling

The separate sampling protocol describes the process of sample site identification, data recording and sampling and recording of soil properties. It refers to data recording at key points in the process. During the pilot phase there is a parallel paper form that has been created to capture all the information needed in case of breakdown in this system.

Note that once a sample record has been created, it can be updated /edited by the user within the web browser. It is possible to record some data in advance or following the field sample collection (e.g. in the cab out of the rain). Some data fields e.g. the unique id cannot be changed once created; the data returned following soil analysis will also not be able to be edited by the user.

- Create a sample record – this will generate a unique record id. on the app.



- Don't forget to record this id on the sampling form / sample box provided by your analysis service. You should also clearly write the project name on the form – i.e. **soilquality.org.uk**

- When you click on the > you are directed to enter further information.

- Clicking on < takes you back to the main screen for information entry.

You can add:

- your own reference name or number;
- any reference the lab. has provided – e.g. a number from the sample bag/ box.
- the UK country of data collection (important because different countries use different analyses as standard and there also may be differences in interpretation)

Location

- The location information uses the in-built GPS Tracker in your device to identify the location.

If this doesn't seem to be working automatically you can zoom in on the map progressively; at the smallest scale a satellite photo appears showing fields etc. The location of the marker should indicate the location of the sampling area (as accurately as you can manage).

Together with the location GPS, you should record a name /location identifier.

Note that while other users may be able to see sample site location information on a map; no other user will be able to link any of the recorded site information or soil analysis to this location.

Soil

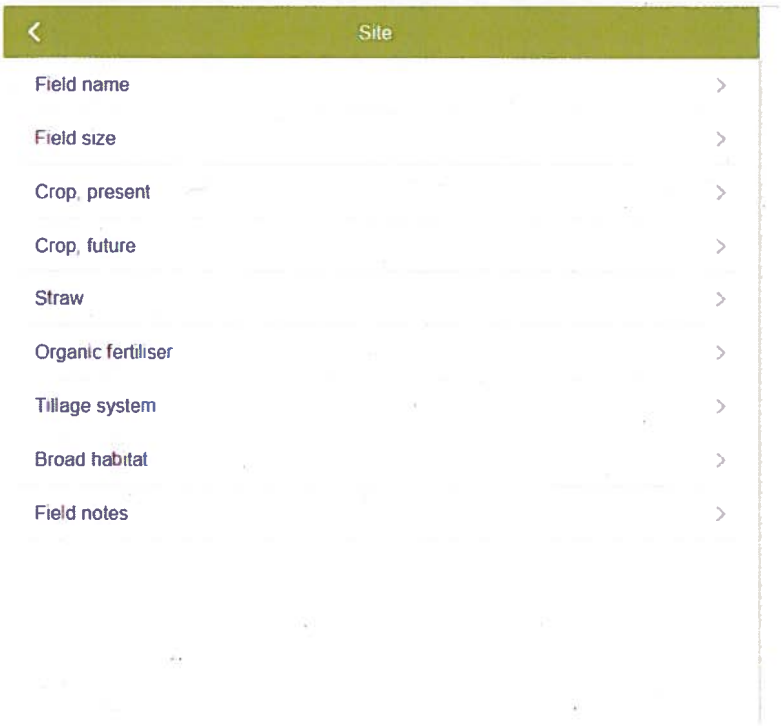
- The main in-field records needed for soilquality.org.uk are recorded under this heading

Some of the > give you a list of options to choose from (soil type / land use)

- Having completed the VESS analysis using a spade, your eyes and the record card (see sampling protocol) record the score on the soil structure sheet.
- There is also the opportunity to **add a photo** of the soil structure, ideally of a spade depth of soil broken apart to show the structure clearly.
- You have the option to add some notes about the structure. For example, you may want to note depth to compaction, rooting depth or unusual rooting patterns etc. If you have compared the structure to that of the hedge bottom you might want to add a note on the comparison for your own record.

In sample notes, you might want to note the number of cores taken and bulked, weather conditions at sampling, why this sampling site was selected (high yield area, yield zone 2 etc)

Site



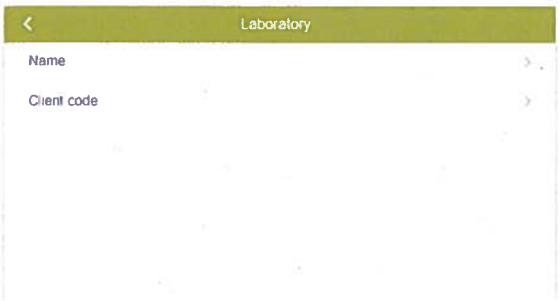
This page has the type of information that is often requested on a sample submitted for analysis where you are asking for recommendations on fertiliser/ lime management.

None is required – but it may be useful to record ....

- A field/ site name or code; this is likely to be your own way of referring to the sample (e.g. field/parcel name – Soggy Bottom (top); Starvall- N, Field 35)
- You have the option to add some field notes, these may help you to interpret the data later. For example,) etc

Laboratory

This section must be completed; use your name if you don't have a specific client code

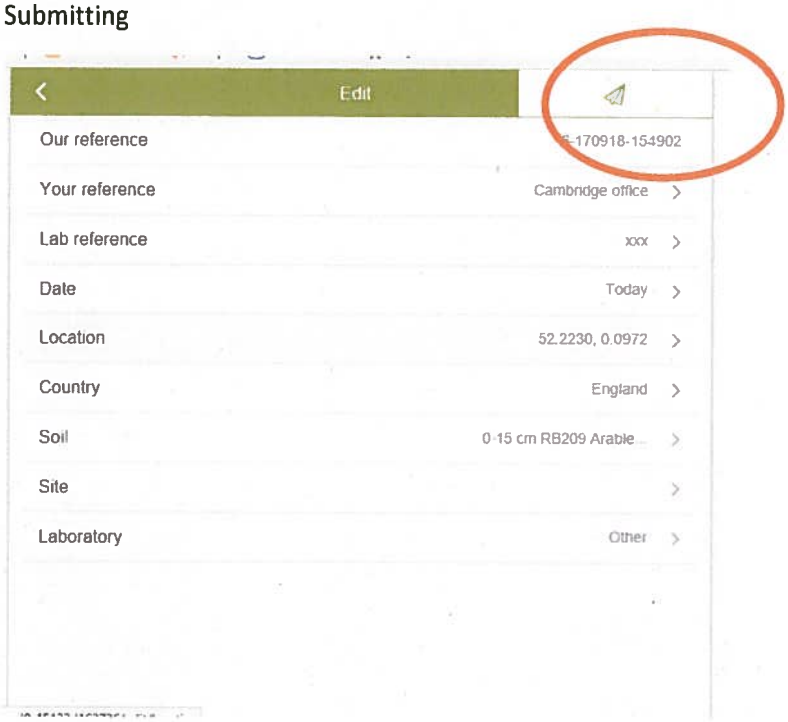


- *In the long term this is where you might move on to lab. web page / app to select your analysis, pay and/or indicate that the sample is en route.*

Storing / editing

If you leave the app and come back later the information is not lost; hence you can add information in a number of stages e.g. cab before you start, in field for structure score and then in the kitchen later.

Submitting



If there are missing values that are required then the app will flag those clearly; it will not let you submit a record where the minimum data set is not complete.

Once you have submitted the record, it cannot be edited again in the app, but you can see all the soil samples you have collected in the main https://mysoilsample.org web page (same user id and password). User explore.

This is still very rough and ready; and in the next stage will link through to the soilquality.org.uk pages.