



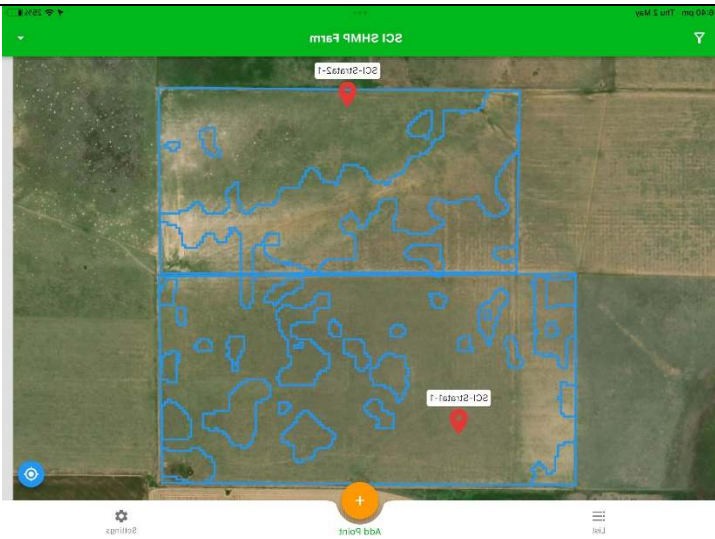
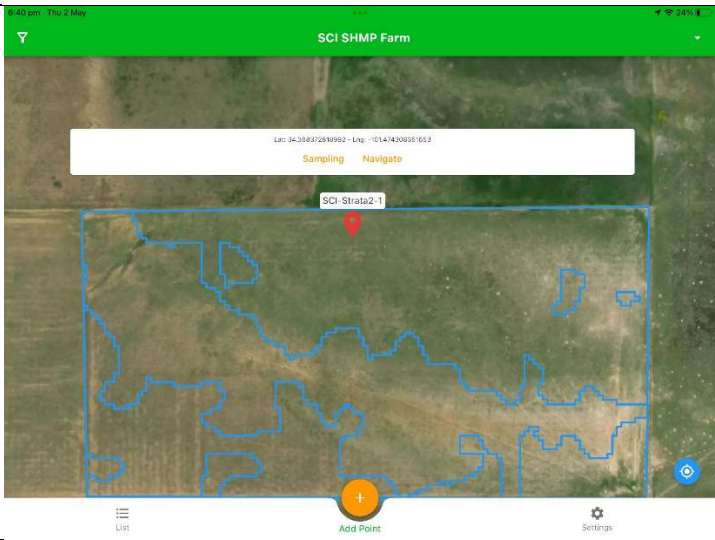
Instructions for Using FarmLab to Conduct SCI Soil Sampling – Soil Health Monitoring Protocol (SHMP)

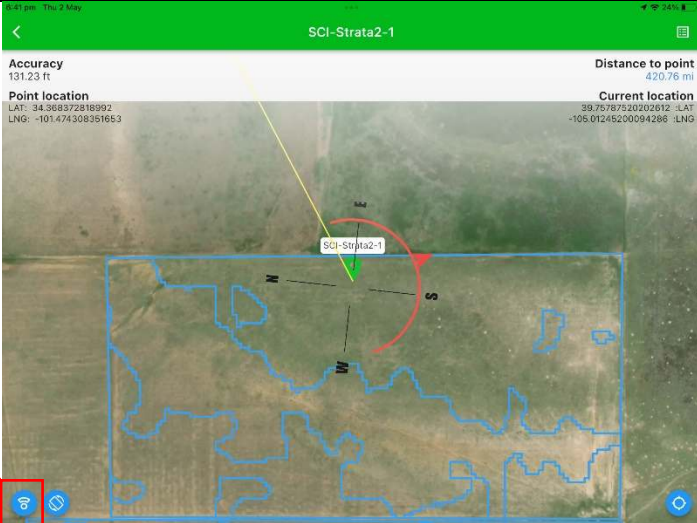
These instructions should be read in conjunction with Soil & Climate Initiative's Soil Testing Guidance & Methodology – 04/2024. Together, they provide directions to complete the lab and in-field testing requirements for SCI verification.

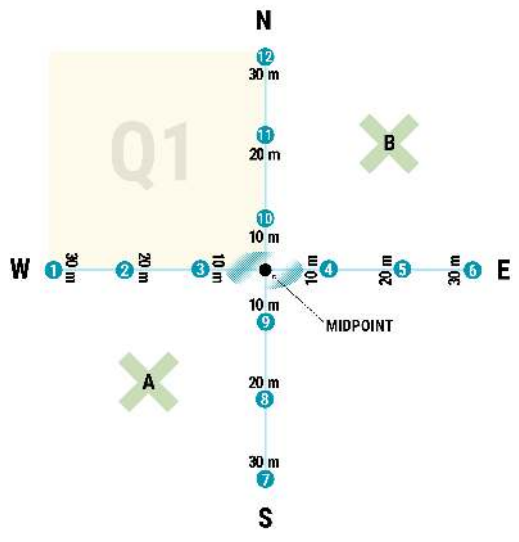
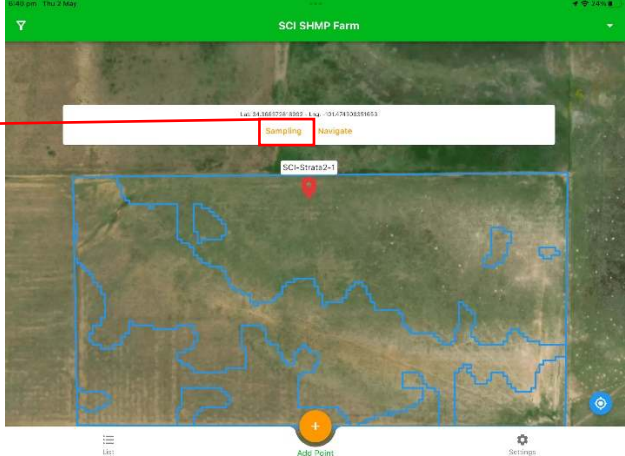
IMPORTANT: Sampling is expected to take between **1-2 hours per field**. It is recommended you read through all the instructions before commencing in-field sampling, even if this is NOT your first time. Doing so will improve your efficiency and help avoiding mistakes in the field that may make your results invalid.

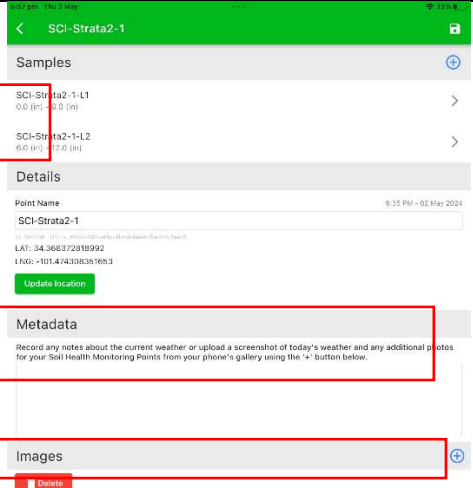
Supplies for In-Field Testing: The list of materials/equipment required for the in-field tests (water infiltration, etc.) are listed in the SCI Guidance & Methodology document [HERE](#).

FIELD GUIDE – SHMP Sampling

1.	Each Soil Health Monitoring Point on your farm will appear in the FarmLab mobile app. Open the FarmLab mobile app. Check that you can see your field boundaries and your SHMP sampling points, represented by red pins on the map.	
2.	Points can be sampled in any order. Select the first point you wish to sample and you will see two options – ‘Sampling’ and ‘Navigate’. Tap the ‘Navigate’ option to navigate to that point.	

3.	A red arrow overlay will show you the compass direction to your point. The Distance to your point can be found at the top right corner. You can toggle the arrow on and off using the direction button at the bottom left hand corner of the screen. Once your distance to point is less than 10 feet CONTINUE TO STEP 8	
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4.	Once you arrive at this point, it is helpful to mark the center with a flag. Then begin collecting samples in a cross shown by the diagram here for water infiltration, VESS, soil samples and worm counts. Soil samples should be placed in your 0-6 inch bucket, mixed well, then placed in a FarmLab sample bag and label the sample with the point or field name and depth. The same is done for the 6-12 inch samples in a separately labelled bucket. To scan your sample barcodes and enter the photos and results for the worm count, slake, penetrometer and water infiltration tests in the FarmLab mobile app CONTINUE TO STEP 7.	 # 1-12 Represents a 12-inch soil core for lab soil tests. - The soil core is divided in half for a 0-6 inch subsample and a 6-12 inch subsample. - The 0-6 inch subsamples are aggregated into one composite sample, and the 6-12 subsamples are aggregated into one composite sample. - If selected, penetrometer readings should be taken at each soil core point after the core has been taken and offset so the testing areas do not overlap. CENTER OF THE SAMPLING ZONE The VESS or Slake tests are performed here if selected. - Do <u>not</u> repeat the VESS in the same location as previous years. A & B Water Infiltration Tests are performed in these locations. Q1 Worm Count Test performed here. - Do <u>not</u> repeat the Worm Count Test in the same location as previous years.
5.	To ENTER DATA, select the sample site you are located at in the FarmLab mobile app. The Sampling and Navigate options will appear. This time select 'Sampling'.	

6.	The 'Point' menu will appear. Underneath the heading 'Samples', you will see two sample options labelled: <Sample-Name-L1> 0in – 6.0in <Sample-Name-L2> 6.0in – 12.0in Scrolling further down the page you will see the heading 'Metadata'. This is a free-text field that will be used to record important factors about today's weather. Scrolling further down the page you will see the heading 'Images'. This can be used to upload a device screenshot of your weather app showing today's conditions – as an alternative to typing text.	
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7.

When you're ready to record data, at the top of the Point menu select the 'Sample-Name-L1'.

Select the **barcode** icon to **scan** the barcode on the sample bag of your 0-6in sample.

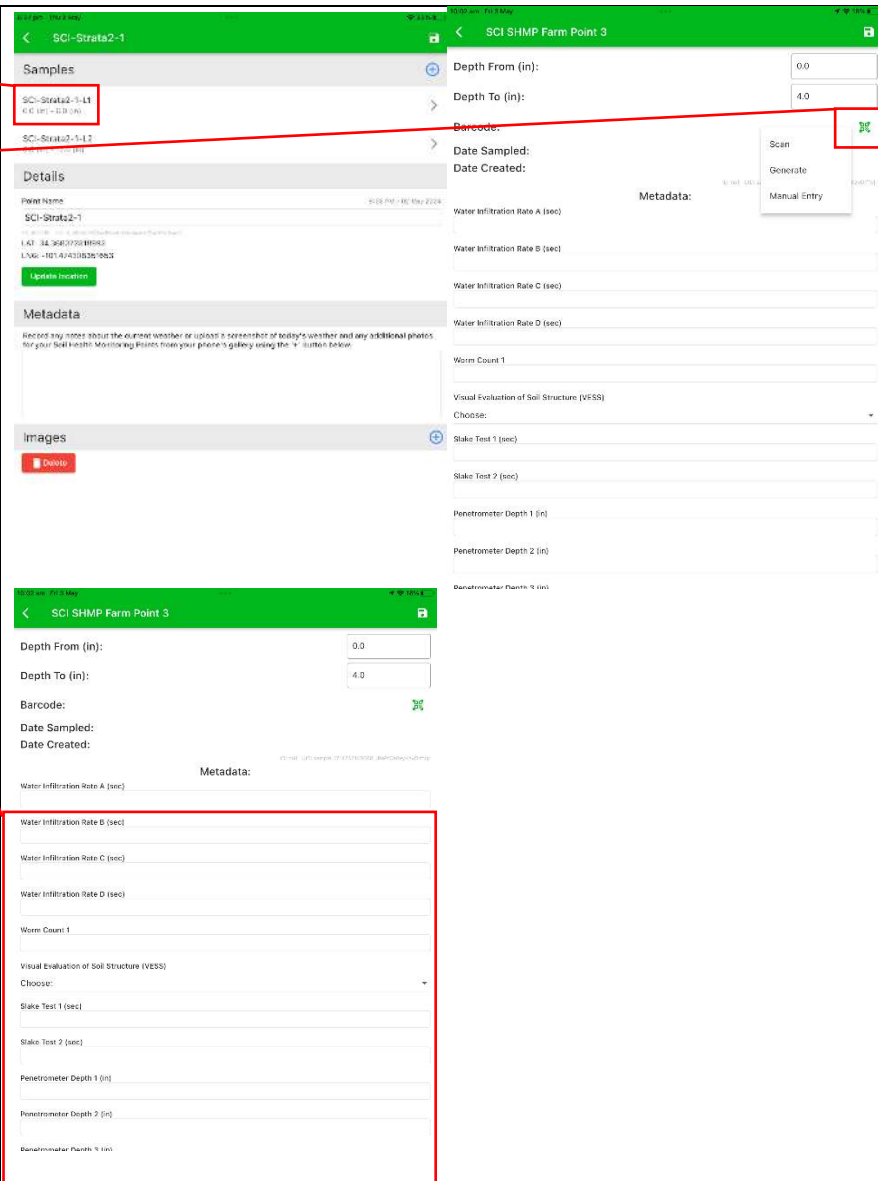
IF YOUR BAGS DO NOT HAVE BARCODES, SELECT 'GENERATE' TO GENERATE A BARCODE AND WRITE THAT ON YOUR SAMPLE BAG.

Scroll down the page to add data for the following:

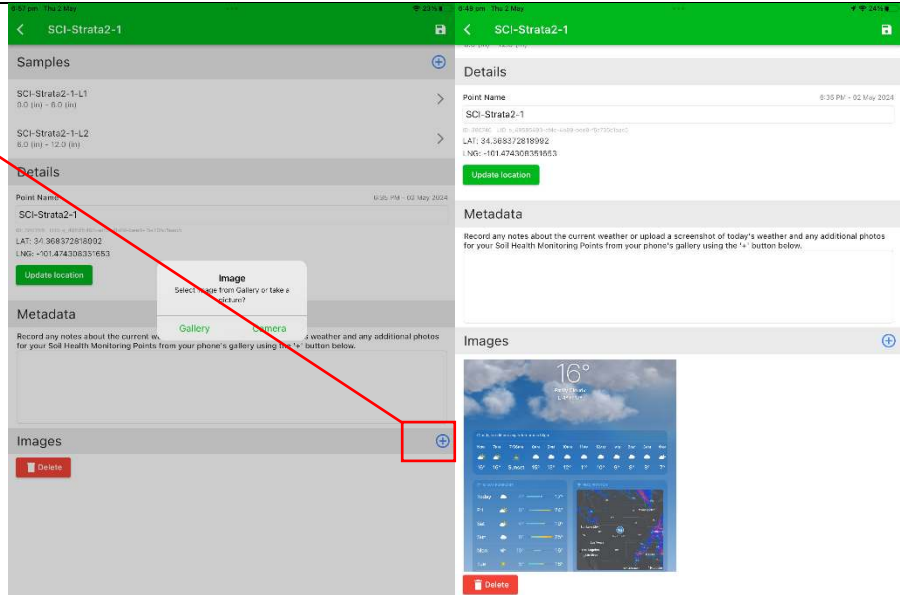
- Water Infiltration Test (A, B, C and D)
- Worm Count
- Visual Evaluation of Soil Structure (VESS) Test
- Slake Test
- Penetrometer Test (E1, E2, E3, W4, W5, W6, S7, S8, S9, N10, N11 and N12)

NB: Images required to be collected for each Field Test or Soil Health Visualization are all saved under the Images section.

NB: Protocols for the performance of each Field Test and Soil Health Visualization are



The top screenshot shows the 'Samples' section of the app. A red box highlights the 'Barcode' icon. A red line points from this icon to the 'Generate' button in the 'Metadata' section. The bottom screenshot shows the 'Details' section of the app. A red box highlights the 'Water Infiltration Rate B (sec)' field. A red line points from this field to the 'Generate' button in the 'Metadata' section.

	outlined under Soil Testing Guidance & Methodology – 04/2024. NB: It is important to note that opening each of the menu options - Sample-Name-L1, Sample-Name-L2 provides an identical data entry screen. It is important to be mindful of opening the correct menu option for the data you are entering.	
8.	Upload any screenshots of today's weather from your weather app and photos relevant to the day's sample collection to the image section. Simply press the (+) next to Images, select from the device's gallery or take a photo using the device's camera, and upload the relevant photo. IF YOU DO NOT SEE THE METADATA FIELDS, CONTACT THE SUPPORT TEAM AT THE ABOVE DETAILS	
9.	Once you have entered all the data, return to the Point menu by clicking the back button. Repeat by selecting the 'Sample-Name-L2' menu option for the 6 – 12 in sample.	FOR SHMPs, YOU DO NOT NEED TO RECORD THE RESULTS OF YOUR VESS, PENETROMETER, SLAKE, OR WORM COUNT TESTS AGAIN AT THE 6-12in SAMPLE DEPTH

FOR SOIL HEALTH MONITORING PROTOCOL REPEAT UNTIL ALL POINTS HAVE BEEN SAMPLED

