Soil Augers

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User Guide
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Introduction to Soil Augers

Soil augers make soil profiling quick and easy without the need for laborious digging. They can be used for taking soil samples for many environmental, archaeological, geological and agricultural applications.

Soil augers tend to be used for samples at or near the surface. However, with the use of extension pieces they have the capability of reaching depths of about 8-10 meters. Augers can be used for soil sampling where a clean undisturbed sample is not necessary. Sample tubes, driven into the ground with the aid of a jarring link, are used to obtain undisturbed samples.

Impact's augers are manufactured from steel. The material used should not interfere or contaminate the soil samples - e.g. using brass augers when testing for nutrient levels can contaminate the sample with micronutrients and give inaccurate test results.

Using dirty or rusted equipment can affect your results - always thoroughly clean your augers after each use to prevent rusting and cross-contamination.

Getting Started

To start soil sampling you will need an auger head specific to the soil type you are testing, a handle and suitable lengths of extension pieces. You can also use a single piece auger where only shallow samples (up to 1m) are needed.

The soil auger will drill into the ground as the handle is rotated clockwise. The soil will be collected and held in the auger head for bringing to the surface and emptying for inspection. Repeat the process until the desired depth is reached.

Which Auger?

Choosing the correct auger head is essential for effective soil sampling. Using extendable augers has the advantage of only needing to take one handle and rods but various heads when out sampling sites with a variety of soils.

- Clay soils are highly cohesive and therefore only require an auger with narrow blades.
- Sandy soils have little cohesion and so you will need an auger with wide blades to help keep the sample inside the auger.
- Coarse sand soils (and extremely dry sandy soil) have very little or no cohesion - augers for these soils tend to have extra wings to form an almost closed auger which will effectively trap the sample taken.
- An auger head more suited for coarse gravel soils is of a different design - the pointed auger tips are bent outwards which will create a sample hole larger then the average auger body diameter.
- Spiral auger heads and chisels are usually used when needing to penetrate a hard layer but do not remove samples - they are used in combination with other auger types.

Examples of some of the auger equipment in Impact's range of supply

SL001 Soil Auger Head 100mm diameter

SL003 Gravel Auger Head 150mm diameter

SL008 Auger Handle and T-Piece

SL009 Auger Extension Rod 1000mm

SL011 Sample Tube 38mm diameter x 230mm long

SL012 End Caps for SL011 sample tubes, pack of 10