

Meet the PACK

Portable Active Carbon Kit

Healthy soil is the foundation of a well-functioning landscape, and organic matter is a key indicator of healthy soil. PACK is a highly-engineered, low-cost, portable device used to measure active soil carbon with laboratory grade precision.

Contact

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Features



Trusted and automatic

PACK uses wet chemistry methods that are broadly used in professional labs. Full automation eliminates human errors, including self-calibrated measurement and self-cleaning after use.



Portable

Total weight is 2.6 kg. Handles multiple samples prior to refill. Usable in the field, without bringing samples to the lab. Compatible with power banks used for recharging mobile phones.



Ease of use

Calibrated with pre-measured reagent 'pills' for reliable reproducibility.



Rapid

PACK's LCD screen reports results within minutes, on the spot.



High precision

Measurement range of 0-1260 mg/kg of Active Carbon, with error bounds within 30 mg/kg.



Rugged build

PACK is built for the field. It has been developed and tested with partners in rural areas of Sub-Saharan Africa.



Soil health assessment

Active Carbon is one of the most important indicators of biological soil health, but can easily and rapidly degrade under adverse management conditions. PACK enables rapid and affordable measurement of active carbon, allowing land managers to quickly respond to the changing needs of their soil.



Research

Researchers around the world are investigating the dynamics of soil. Applications include biodiversity, mitigation and adaptation strategies to address climate change, biogeochemistry, and agriculture. PACK was designed by scientists working in difficult terrain. Researchers can take PACK with them directly to remote sampling sites.



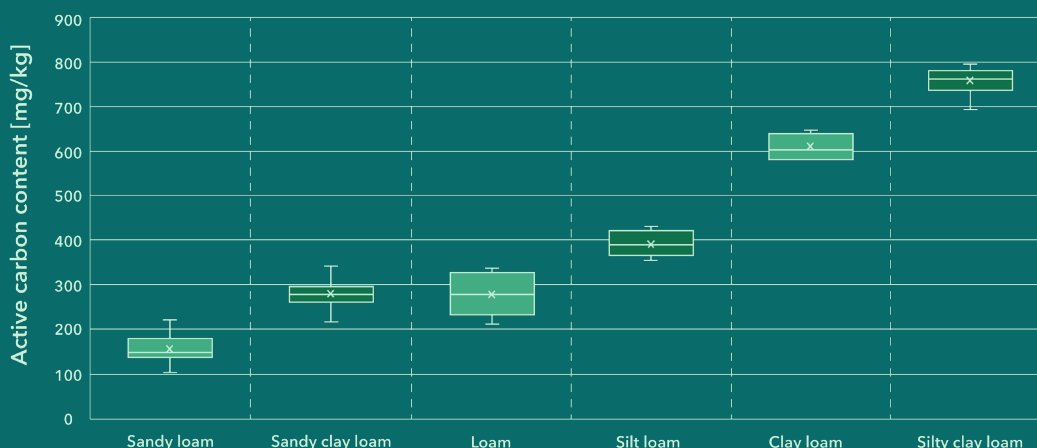
Agricultural extension

PACK's portability and rapid results can empower agricultural extension workers all over the world to provide quick, reliable, and actionable knowledge to farmers. PACK brings down the expensive costs of laboratory analysis, democratizing access to critical information necessary for the sustainable management of agricultural lands.

Specifications

Characteristics	Analyzer of active carbon in soil	Powering	5V DC, 2A source. micro USB input (works with power bank)
Measuring principle	Colorimetric	Interface	OLED screen, buttons
Size	250 x 225 x 110 mm	Measurement range	0-1260 mg/kg AC
Weight	1.1 kg (empty), 2.6kg (full water container)	Standard error	30 mg/kg AC
Measurement time	25 minutes	Water container capacity	1500 ml
Max sample weight	6 g	Water used per measurement	250 ml
Recommended sample weight	4-6 g	Chemicals used per measurement	2 pills with reagents from QED
Average power consumption	200 mA		

Active carbon in multiple soil samples tested by 5 different PACKs



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Or scan:

