Soil Spectra™

Product Overview

Soil Spectra™ is a portable soil testing device powered by AI-driven spectroscopy. Delivering quick and reliable soil nutrient analysis in multiple languages, it empowers farmer touchpoints to provide precision farming advisory and boost rural incomes.
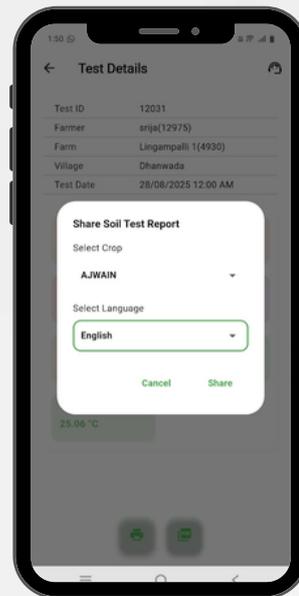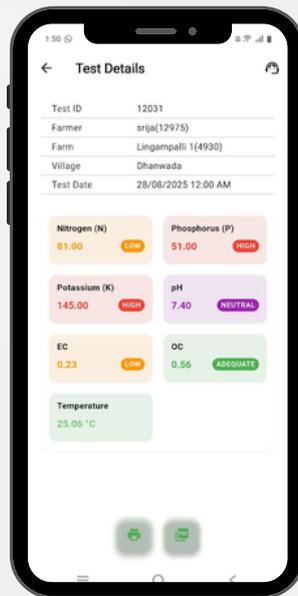

Technical Specification

Parameter	Specification
Technology	NIR/VIS spectroscopy with AI calibration
Soil Parameters Tested	N, P, K, OC, pH, EC, Soil Temperature
Accuracy	N – 91% ; P – 88% ; K – 89% ; OC – 92% ; pH – 94% ; EC – 93%
Test Time per Sample	~2 minutes
Sample Type	Fresh / Dry soil
Output	Instant Digital soil health report (multi-lingual, farmer-friendly) via WhatsApp
Dimensions & Weight	11.5 cm × 11.5 cm × 16 cm ; lightweight portable & splashproof compact design
Power	Rechargeable 2500 mAh battery (low consumption); ~100 tests per charge; Charging: USB
Connectivity	Smartphone app (Android & iOS) via Bluetooth Low Energy (BLE), Wi-Fi, offline mode, cloud sync
Durability	Field rugged design; Water Resistant; Dust Resistant - Made of Teflon, SS316, ABS
Languages Supported	10+ Indian languages

BHARATMANDI

Software & Integration - Farmsys Spectra

- **Mobile App:** Test history, geo-tagging, farmer database, multilingual support
- **Advisory Engine:** AI-powered, crop-specific fertilizer recommendations
- **Crop Micronutrient Plan:** Recommendations guided by selected crop type
- **Organic Compatibility:** Tailored input plans for both conventional and organic farming practices
- **Reports:** Farmer-friendly reports (printable & digital)
- **Data Dashboard:** Centralized view for FPOs, MFIs, channel partners
- **API Integration:** Compatible with partner platforms, enabling seamless ecosystem integration

Scan QR to download app

How to Operate?

Scan QR for demo video

Collect Sample → Scan Soil → Scan with Soil Spectra → Get Instant Results