

CORE TECHNOLOGY



RUGGED HARDWARE BUILT FOR THE FIELD

Corrosion-Resistant & Compact

- + Stainless steel frame + anti-corrosion coating
- + Compact size, easy to transport
- + Barn & pasture ready

Dual-Mode Power / Motorized Mobility

- + AC / battery seamless switch
- + >24-hour battery life
- + Motorized with electric-assist drive

All-Weather Ready

- + Wide temp & humidity range
- + Any climate region
- + Plug-and-play setup



DATA INTELLIGENCE

Data Local + Export

- + On-device storage & computation
- + Full data security
- + Raw data export supported

Multi-Terminal

- + 7" touchscreen real-time display
- + Mobile / PC remote monitoring
- + Access anywhere, anytime

Smart Models

- + Breed-specific emission models
- + Auto carbon emission reports
- + Customizable



PRECISION SENSING CERTIFIED

Seamless Connectivity

- + 4G + WiFi + Satellite
- + USB + offline storage
- + Real-time sync

Ear Tag Ready

- + Universal compatibility
- + "One Cow, One File" tracking

Multi-Gas + Calibration

- + CH₄, CO₂, O₂, H₂ + environmental params
- + Auto compensation & correction
- + Simple calibration, low QC cost

Certified Accuracy

- + Verified by China National Testing & Certification Holding Group (CTC)
- + FAO project-supported equipment
- + Results credible & publication-ready
- + CAAS / FAO LEAP / CTC endorsed



PRECISION MONITORING FOR EVERY BREATH

SCIENTIFIC QUANTIFICATION OF CARBON FOOTPRINT



Laser Sensor

TDLAS technology
All-weather durable,
maintenance-free.



Multi-Gas Sync

CH₄, CO₂, H₂, O₂ +
environmental parameters.
Smart compensation.



Herd Assessment

Millisecond data acquisition.
Quantifies herd carbon
trends.



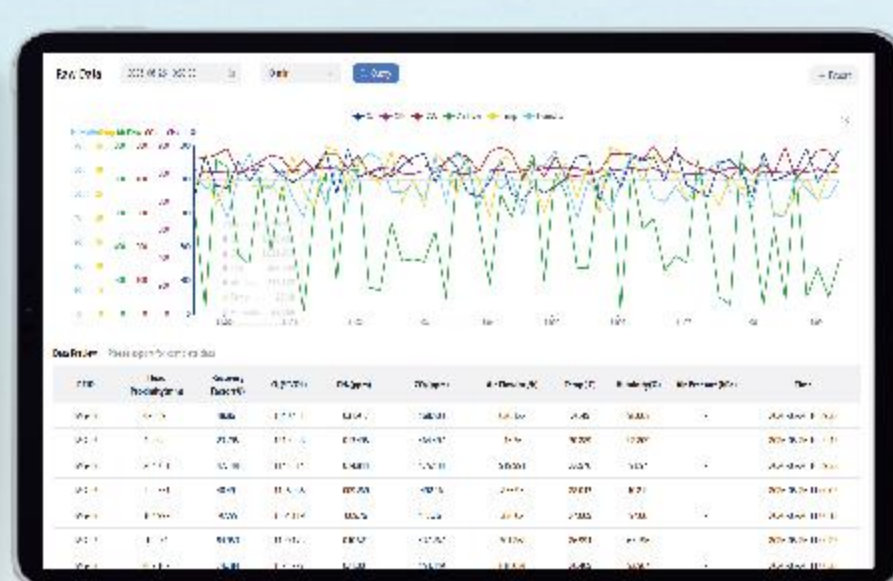
Smart Reporting

Custom test plans.
Auto-generated
multi-dimensional reports.

Ruminant GHG Emission Monitoring System

MouCarbon utilizes TDLAS laser sensing with feed-trough induction and automatic gas-path switching. Paired with an intelligent baiting system for voluntary, repeated animal visits and 7x24 uninterrupted monitoring.

Integrated AI carbon calculator. Scan QR for rapid pasture carbon estimation.



**Scan to Access
Carbon Calculator**



Corrected Flowchart

STEP.1

Power-on Self-inspection

Network detection,
environment
background check

STEP.2

Animal Guidance & Access

Channel isolation

STEP.3

Head Positioning & Gas Sampling (5-8 mins)

Fine mixing
sampling

STEP.4

Gas Sub-sampling & Analysis

Secondary Filter /
Laser detection

STEP.5

Cloud Computing & Storage

Real-time upload
via 4G/Wi-Fi

STEP.6

Backend Data Query & Report Download

Daily cloud
processing,
browse on web

STEP.7

Equipment Maintenance & Cleaning

