Laboratory Services in South East Asia

About CABI

CABI is an international, inter-governmental, not-for-profit organization with 50 Member Countries across the globe. Our goal is to improve people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment.

CABI's South East Asia centre

The centre's office, which is located in the Malaysian Agriculture Research and Development Institute complex in Kuala Lumpur, Malaysia, serves countries in South East Asia and the South Pacific region. The centre's work is wide-ranging and focuses on sustainable pest and disease management, invasive species prevention and management, and plant health. It also covers aspects of plant biosecurity, climate smart agriculture, value chain analysis, digital applications in agriculture and market access – based on sanitary and phytosanitary (SPS) issues.

Services available

Entomology laboratory

- Rearing of insect pests and their biocontrol agents
- Production of indigenous entomopathogens (ie *Metarhizium anisopliae* and *Paecilomyces fumosoroseus*) as biopesticides
- Diagnosis of insect pests and biocontrol agents

Microbiology laboratories

- Fully equipped microbiology laboratory for plant pathogen identification and pathogenicity tests
- BiOLOG identification system (ie bacterial analysis)
- DNA/RNA extraction and PCR amplification for identification of plant diseases (ie fungi, viruses, viroids)

Facilities available at CABI South East Asia centre

- BiOLOG system
- PCR system
- Remote Microscopy

Additional facilities available at CABI in the UK

- DNA sequencer
- MALDI-TOF
- Real Time PCR
- Next Generation Sequencers
- Culture collection: Microorganism supply and deposit (ie storage of fungi and bacteria culture collections, plant pathogens in freeze-dried vials using liquid nitrogen)

Additional services provided by CABI in the UK

CABI's UK centre in Egham has two secure quarantine suites where our scientists carry out research on plants, invertebrates and microorganisms. This is where we also accept plant samples for identification of pests and diseases. Specimens from South East Asia can be sent to Egham for identification at a cost. For more information on UK services please visit www.bioscience.cabi.org or email microbialservices@cabi.org

CABI Member Countries* are eligible for a free standard identification service. For more information, visit **www.cabi.org/membership** or contact our team at CABI South East Asia for advice before sending the samples.

*Available to Member Countries in bands 1-4, up to 10 samples per institution can be sent per year

Examples of our work

Entomology

Services/Projects	Clients
Identification of fall armyworm in SEA (by CABI UK Centre)	Malaysian Agricultural Research and Development Institute, Malaysia Plant Protection Department, Vietnam
Pilot scale production of indigenous entomopathogens as Biopesticides (TechnoFund)	Bright Resource Technology, Malaysia Government of Malaysia
Identification of Tirathaba sp. (supported by Centre for Insect Systematics, Universiti Kebangsaan Malaysia)	Sarawak Oil Palms Berhad (SOPB), Malaysia
Field collection and bioassay of *Spodoptera frugiperda* (fall armyworm) populations in South-East Asia and Northern Australia	Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia

Microbiology

Services/Projects	Clients
Beneficial microbial profiling against Ganoderma disease in oil palm plantation of Malaysia	Felda Global Ventures (FGV), Malaysia
LEGATO (Land-use intensity and Ecological Engineering – Assessment Tools for risks and Opportunities in irrigated rice-based production systems) Microbial metabolic profiling of soil samples as a monitoring tool of microbial functional diversity	Helmholtz Center for Environmental Research, Germany
Beneficial soil microbe analysis from pepper plantation	Welt Bio Co. Ltd., Cambodia
Field assessment and morphological characterization of a pathogen causing disease in Bambara nut	Crop for the Future (CFF), Malaysia
Identification and management of Blood Disease affecting a Malaysia banana plantation	United Plantation Sdn. Bhd., Malaysia

Basic microbiological services price list

Services	Rate*	Remarks
Morphological characterization	RM 200-300 per sample	Depending on number of samples and whether further sample processing is needed before the characterization
Basic molecular characterization (includes DNA extraction and PCR amplification)	RM 300-400 per sample	Depending on troubleshooting needed (Extraction of pure DNA, generations of primers and PCR conditions)
Pathogenicity test	RM 500-1000 per batch	Depending on types of plant samples
BiOLOG	RM 1500 per sample	-

Contact

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Schweizerische Eidgenossenschaft
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Confederazione Svizzera
Confederaziun svizra

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