
Integrated Biosecurity, Sustainability & Green Environment Solutions

Specialist Consultancy, Training & Operations for Botanical Gardens



BIOSECURITY · SUSTAINABILITY · TRAINING · BOTANICAL GARDEN SERVICES

Prepared for: [Facility Management Company]

Prepared by: ASFAN International Trading Company, Amman, Jordan

Date: June 2026

Purpose of This Document

This document introduces ASFAN's specialist consultancy, training, and operational services for botanical gardens, and how we can support your facility management mandate. As the organisation responsible for operating and maintaining botanical garden facilities, you carry a dual obligation: delivering a safe, attractive visitor environment while protecting irreplaceable living plant collections — and the pollinators and wildlife they depend on — from biological threats.

Our role is to make that obligation manageable through a structured, standards-based programme, delivered by teams we train and, where needed, operations we help run.

The Biosecurity Challenge for Botanical Gardens

Unlike public parks, botanical gardens hold documented, scientifically managed living collections — often including rare, endangered, or high-value specimens. This makes them uniquely exposed to plant-health risks that ordinary landscape maintenance is not equipped to address:

- Introduction of pests and pathogens through incoming plant material, soil, and growing media.
- Spread of plant diseases between zones via tools, equipment, irrigation water, and staff or visitor movement.
- Establishment of invasive and noxious species that threaten both the collection and the surrounding environment.
- Harm to bees, butterflies, birds, and beneficial pollinators when pest control is not carefully selected and applied.
- Regulatory and reputational exposure where phytosanitary, conservation, or environmental obligations are not demonstrably met.

Most of these risks are managed — or missed — by people on the ground every day. That is why competent, well-trained teams are the single most important control a garden can have.

How ASFAN Supports Your Mandate

ASFAN provides specialist consultancy, technical support, and — critically — hands-on training and operational support that integrate directly into your facility management operations. We help you close compliance gaps, build real competency across your workforce, and embed sustainable, pollinator-safe management routines, all aligned to internationally recognised best practice.

12 Biosecurity & Plant-Health Pillars

ASFAN delivers one integrated programme structured around twelve plant-health and biosecurity pillars — covering every point at which biological risk can enter, spread within, or leave a botanical garden.

1. Plant Quarantine & Phytosanitary Control Screening, isolation, and clearance of all incoming plant material before it enters live collections.	2. Pest & Disease Management (IPM) Integrated monitoring and pollinator-safe control of insect pests and plant pathogens.
3. Invasive & Weed Species Control Containment, surveillance, and eradication planning for invasive and noxious species.	4. Soil, Substrate & Growing Media Sourcing controls, sterilisation, and contamination prevention for soils and growing media.
5. Nursery, Glasshouse & Propagation Biosecurity protocols for controlled-environment growing, nurseries, and propagation areas.	6. Irrigation & Water Management Water-quality control and management of recycled and irrigation water as a pathogen pathway.
7. Tool, Equipment & Vehicle Hygiene Cleaning, disinfection, and movement controls to prevent cross-contamination between zones.	8. Green Waste & Diseased Material Safe segregation, handling, composting, and disposal of plant and diseased-material waste.
9. Visitor & Pathway Biosecurity Managing visitor movement, signage, and entry / exit controls to reduce introduction risk.	10. Collection Documentation & Records Accession records, traceability, and plant-passport documentation for the living collection.
11. Conservation & Biodiversity Ex-situ conservation, seed banking, pollinator habitat, and protected-species management.	12. Risk Assessment & Incident Response Risk registers, contingency planning, and rapid outbreak-response procedures.

Running through all twelve pillars: Staff Training & Competency · Compliance & Auditing · Sustainability & Environmental Stewardship.

Standards & Frameworks We Align To

Our programmes translate internationally and regionally recognised standards into practical, day-to-day operational procedures:

IPPC & ISPMs	International Plant Protection Convention phytosanitary standards
BGCI	Botanic Gardens Conservation International best-practice manuals
IUCN	Conservation and species-management guidelines
CITES	Trade controls for protected and endangered species
CBD	Convention on Biological Diversity (access & benefit sharing)
ISO 14001	Environmental management systems
KSA Regulatory	MEWA, National Center for Environmental Compliance (NCEC) & NCVC requirements

ASFAN aligns client programmes to these frameworks; specific certifications and licences are confirmed per engagement with our specialist partners.

Training Programs & Operations

Standards only protect a garden when the people working in it apply them correctly, every day. ASFAN does not stop at advice — we run structured training programs and can provide operational support, so that protocols become routine practice across your entire workforce.

Role-Based Training — From Laborers to Engineers

Training is tailored to each role, because a field worker, a supervisor, and an engineer each need different knowledge to keep the garden safe:

Who We Train	Focus of Their Training
Field Workers & Laborers	Hands-on biosecurity routines: hygiene and footbath stations, tool disinfection, safe handling and disposal of plant waste, early recognition of pests and disease, and correct, pollinator-safe pesticide handling with proper PPE.
Supervisors & Team Leaders	Enforcing protocols across crews, zone and quarantine management, daily monitoring and record-keeping, leading toolbox talks, and first-response when an incident is detected.
Engineers, Agronomists & Technical Staff	IPM and pollinator-safe pesticide-programme design, phytosanitary diagnostics, risk assessment, audit preparation, irrigation and growing-media controls, and conservation planning.
Facility & Operations Management	Programme governance, compliance reporting, regulatory liaison, budgeting for biosecurity, and continuous-improvement oversight across the site.

How We Deliver Training

- On-site, hands-on practical training in your own garden, nursery, and glasshouse environments.
- Classroom and toolbox-talk sessions delivered in both English and Arabic, suited to a multinational workforce.
- Immersive Virtual Reality (VR) modules for safe, repeatable practice of biosecurity and pest-management procedures.
- Clear, visual Standard Operating Procedures (SOPs) and quick-reference guides for daily use.
- Scheduled refresher training and competency re-assessment to keep skills current.

Competency, Certification & Operational Support

- Pre- and post-training competency assessment, with certificates and a training matrix maintained per role — ready for audit and regulatory inspection.
- Beyond training, ASFAN can provide embedded supervision and operational support — running or co-running biosecurity, IPM, and landscape-maintenance operations until your teams are fully self-sufficient.

Pollinator-Safe & Wildlife-Friendly Pest Management

A botanical garden's value depends on the living things it attracts as much as the plants it holds. Conventional pest control can harm the very bees, butterflies, and birds a garden exists to celebrate. ASFAN designs pest-management programmes that protect the collection while safeguarding pollinators and beneficial wildlife.

Pesticides safe for birds, butterflies, and beneficial pollinators such as bees.

- Selective, low-toxicity and biorational products chosen to spare bees, butterflies, birds, and other beneficial pollinators.
- Application timing — such as dawn or dusk spraying, away from peak pollinator activity and bloom — plus drift control to minimise exposure.
- Biological control using beneficial predatory and parasitic insects, reducing reliance on chemical treatment.
- Designated no-spray buffer zones around pollinator habitats, water features, and nectar planting.
- Full records of every product used, with safety data sheets and compliance documentation for audit.

Attracting Pollinators & Beneficial Wildlife

Beyond protection, we help gardens actively invite beneficial wildlife back in — strengthening pollination, biodiversity, and visitor appeal:

- Nectar-rich and host-plant schemes that support bees, butterflies, and pollinating insects throughout the year.
- Pollinator corridors, insect hotels, and water features designed into the landscape.
- Habitat for nectar-feeding birds — including native sunbirds, and, where a managed aviary or display is planned, hummingbirds — under full biosecurity, welfare, and regulatory controls.
- Monitoring of pollinator and bird activity as a practical indicator of garden and ecosystem health.

Services We Provide

- Botanical garden planning, development, and operational management.
- Role-based training for laborers, supervisors, engineers, and management (English & Arabic).
- Pollinator-safe and wildlife-friendly pest-management programmes.
- Pollinator and beneficial-wildlife habitat creation.
- Plant conservation, biodiversity protection, and phytosanitary biosecurity programmes.
- Integrated Pest Management (IPM) strategy and monitoring systems.
- Inspection, auditing, and compliance assessment against international and KSA requirements.
- Risk assessment, corrective-action planning, and incident response.
- Sustainable landscape development and environmental management systems.

How We Work With You

A simple, four-stage model that fits alongside your existing facility management operations:

1	Assess Site visit, gap assessment, and risk profiling against international and KSA best practice.
2	Design A tailored biosecurity, plant-health, and pollinator-safe programme with clear protocols and responsibilities.
3	Train Role-based training for laborers, supervisors, engineers, and management — including immersive VR modules.
4	Operate & Sustain Embedded operational support, ongoing auditing, and continuous improvement to keep compliance current.

Innovation: Virtual Reality (VR) Training



Our VR modules let garden teams practise plant identification, biosecurity, and pollinator-safe pest-management procedures in safe, repeatable virtual environments — building competency before applying it in live collections, with no risk to the real garden.

Our Team

ASFAN draws on a multidisciplinary team with combined experience exceeding 30 years across the Middle East in botanical gardens, agricultural development, environmental sustainability, biodiversity conservation, and large-scale landscape projects.

By combining scientific knowledge, international best practice, and hands-on training delivery, we help organisations establish, develop, and optimise botanical gardens — promoting biodiversity, operational excellence, and long-term sustainability across the UAE, Saudi Arabia, Jordan, and the wider region.

Ready to Build a Greener, Biosecure Future?

Let us start with a no-obligation site assessment of your botanical garden facilities. We will identify your biosecurity gaps, build a role-based training plan for your teams, and propose a phased programme tailored to your operation.

ASFAN · www.asfanco.com · info@asfanco.com · +962 777870871
ASFAN International Trading Company · Mecca Str., Bldg. 226 · P.O. Box 2802, Amman 11821, Jordan