NURSERY PAPERS
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IMPLEMENTING HIGH HEALTH PLANT PRODUCTION:
The role of BioSecure HACCP in Australian nurseries

INTRODUCTION

Across Australia's production nurseries, growers are increasingly shifting from reactive pest control methods to proactive, systems-based approaches. Integrated Pest Management (IPM) and structured crop monitoring are replacing the outdated 'see damage, spray pesticide' mentality. Central to this shift is the growing adoption of BioSecure HACCP — a plant protection and biosecurity program developed specifically for production nurseries and growing media suppliers.

Why high health plant production matters

The Australian Plant Production Standard (APPS) integrates three key programs: NIASA Best Management Practice, EcoHort Environmental Management System and BioSecure HACCP. While many businesses already implement NIASA-aligned procedures informally, interest in formal BioSecure HACCP certification is growing — and not solely for market access reasons.

Beyond enabling self-certification for interstate plant movements, the main benefit lies in embedding a robust pest and disease management framework across the business. Structured IPM programs, supported by staff-wide engagement and defined risk controls, deliver cost savings, improved plant quality and enhanced biosecurity compliance.

What is BioSecure HACCP?

BioSecure HACCP (Hazard Analysis Critical Control Point) is an industry-owned, risk-based plant protection system. The program provides you with a step-by-step procedure to follow when you're checking for issues, reducing risks and responding when you find problems.

The framework supports existing best management practices, validating and formalising them under a national standard. It is compatible with NIASA and many growers apply elements of BioSecure HACCP even before seeking certification.

Greenlife Industry Australia
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BIOSECURE HACCP – FOUR PILLARS

1. BUSINESS INPUTS

- All inputs — people, vehicles, tools, plant material and growing media — must be assessed for pest, disease and weed risk.
- Quarantine and inspection protocols must be in place for new material entering the site.

2. PERIMETER AND SITE SURVEILLANCE

- Surveillance identifies early threats and helps contain external incursions.
- Boundary areas should be regularly surveyed for invasive species risks.

3. STRUCTURED CROP MONITORING

- Scheduled monitoring against defined pest and beneficial thresholds improves IPM outcomes.
- Tools include sticky traps, trained personnel and robust record keeping.
- Benefits include fewer chemical applications, improved crop health and happier staff.

4. DISPATCH INSPECTIONS

- Outgoing stock must be inspected to confirm it is free of pests, disease and weeds.
- This is the final check before plant material leaves the site.

BUSINESS INPUTS

ON THE GROUND: DRACAENA FARM NURSERY

To manage risk from incoming materials and visitors, Dracaena Farm Nursery introduced robust quarantine, hygiene, and inspection protocols aligned with NIASA and BioSecure HACCP standards. Raised benches, concrete pathways, a quarantine zone and structured entry procedures have significantly reduced contamination risks and improved plant health.

STRUCTURED CROP MONITORING

ON THE GROUND: CAMERON'S NURSERY

Cameron's Nursery in NSW saw measurable improvements in crop health and cost savings after implementing structured crop monitoring under BioSecure HACCP. By training staff to scout early and using beneficial insects, they minimised chemical use, avoided crop losses, and reduced rework. Their proactive IPM system now underpins their entire production strategy.

AMS

ON THE GROUND: CAMERON'S NURSERY

Cameron's Nursery uses the Audit Management System (AMS) to record pest monitoring and inspection data. The graphical reports help them visualise pest and beneficial populations over time, allowing for earlier intervention and better planning. The system also supports compliance and simplifies their BioSecure HACCP audits Suggest attributing to another BH biz.

Dracena Farm Nursery

Salvia mystic spires crop 180mm

Young Rosemary 140mm

INNOVATION SPOTLIGHT

Scanning Plants in 3D at UniSQ

The University of Southern Queensland is the first in Australia to use the PlantEye F600 H Portal Scanner, a high-tech system that captures real-time 3D data on plant traits like height, leaf area and biomass. Mounted on rails, the scanner lets researchers track crop growth over time without touching the plants — perfect for studying stress responses, breeding performance and yield potential.

It's a glimpse into the future of automated crop monitoring, but the principles are the same: structured observation, solid data and smart decision-making.

Read more at ***www.unisq.edu.au/news/2025/03/plant-scanner***

Implementing BioSecure HACCP on site

Many growers already undertake core program elements — logging visitors, assigning pest management roles and inspecting inputs. BioSecure HACCP formalises these actions and ensures consistency.

Staff responsible for pest management should be trained in pest lifecycles, beneficial insects and treatment thresholds. Digital tools such as the Pest ID Tool (***www.pestid.com.au***) support in field identification. Effectively implementing BioSecure HACCP encourages earlier, better informed decisions and reduces the need for reactionary chemical treatments.

Audit Management System (AMS)

Greenlife Industry Australia's AMS is a cloud-based record keeping tool supporting NIASA, EcoHort and BioSecure HACCP. It enables real-time input from team members and offers managers dashboard access to view all entries.

AMS tracks:

- pesticide application history
- crop monitoring data
- pest/beneficial population trends (graphical output)
- compliance with crop inspection protocols.

It replaces manual record keeping with a structured, auditable format that improves decision-making and supports certification.

Certification benefits

Certified businesses gain:

- self-certification authority for interstate movements (via Entry Condition Compliance Procedures, ECCPs)
- reduced need for government inspections
- demonstrable biosecurity discipline
- a defensible, auditable system aligned with national expectations

Recordkeeping is no longer paper-based. With AMS, staff can enter data on phones, tablets or computers at the point of action, improving accuracy and reducing admin time.

Getting started

Growers can begin by introducing just one element — such as an intake import inspection protocol or regular sticky trap monitoring. BioSecure HACCP is modular: start small and build.

For tailored support, contact your local GIA Extension Officer. They can assist with risk mapping, procedural templates, staff training and audit preparation.

BONUS RESOURCE

To kick things off, why not try out our **INCOMING STOCK QUARANTINE CHECKLIST**. You'll find it on the next page.

QUARANTINE: QUICK CHECK FOR NEW STOCK

Incoming stock quarantine — practical steps for growers

Quarantining new plant material is a simple, effective way to reduce the risk of introducing pests, diseases or weeds into your nursery. Most growers already do parts of this — the aim is to apply it consistently and document the process.

1. ON ARRIVAL

- Record the supplier name, date and time of delivery.
- Ensure the delivery driver signs in (via your visitor log or AMS).
- Place new stock in a separate, designated quarantine area.

2. INSPECT THE STOCK

- Check foliage for chewing, discolouration or other pest signs.
- Look for stem damage, lesions or wilting.
- Examine roots and potting mix for signs of rot or weed seeds.
- Watch for insect movement in trays or packaging.
- Take photos and make notes if anything seems unusual.

3. QUARANTINE PERIOD

- Keep stock isolated from production areas for 7–14 days.
- Label clearly with ‘Quarantine’ signage.
- Monitor daily for emerging pest or disease issues.

4. DECIDE NEXT STEPS

- **No issues found:** record and release stock into production.
- **Issues found:** treat and re-check before release or reject and return to supplier.

5. RECORDKEEPING

- Document all inspections, quarantine periods and outcomes.
- Use the Audit Management System or a paper log — either is acceptable for traceability and audit.

FOR TEMPLATES OR ASSISTANCE, CONTACT YOUR LOCAL GIA EXTENSION OFFICER.

MORE INFORMATION

For more information: visit *nurseryproductionfms.com.au*

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YOU CAN ALSO REACH OUT TO YOUR LOCAL EXTENSION OFFICER DIRECTLY:

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