

NURSERY PAPERS

MARCH 2008 Issue no.2

BioSecure HACCP

Nursery and Garden Industry Australia (NGIA) in partnership with Horticulture Australia Limited (HAL) has developed Biosecure HACCP, a set of guidelines that will provide a systematic approach for production nurseries to assess their biosecurity hazards and responsibilities and manage the identified risks.

In this Nursery Paper, Nursery and Garden Industry Queensland (NGIQ) Industry Development Manager (IDM) John McDonald talks about the Biosecure HACCP process, what it is used for and its benefits.



BioSecure HACCP

An on-farm biosecurity management system for production nurseries

BioSecure HACCP is the industry specific biosecurity program designed to assist growers in assessing their current and future pest, disease and weed risks, and guide businesses in the implementation of management strategies at critical control points.

A program for producers

BioSecure HACCP is the on-farm biosecurity program for production nurseries in Australia. The program validates many of the best management practice strategies employed under the Nursery Industry Accreditation Scheme Australia (NIASA).

It seeks to identify internal and external (enedmic and exotic) threats to the integrity of a business's biosecurity processes and preparedness.



Yuruga Nursery – Managing biosecurity in eucalyptus production.

BioSecure HACCP is a set of protocols and procedures that enable a business to manage biosecurity risks establishing an effective internal quarantine process for both imported and exported plant material.

In nursery production, biosecurity is the protection of the enterprise from the introduction of insects, diseases, weeds and other biological organisms that may adversely impact on the business. It is the management of these risks through exclusion, eradication and control defined under a sound risk management strategy that will ensure the business remains protected. BioSecure HACCP is the program that will provide growers with the decision making tools to support on-farm biosecurity and guide them in identifying the relevant risks and the steps needed to control them.

The Australian nursery industry is a diverse sector of horticulture providing green-life to a broad range of end users. Nursery production includes growers supplying:

- Ornamental retail
- Landscaping
- Interiorscape
- Vegetable producers
- Fruit producers
- Forestry plantations
- Re-vegetation programs
- Cut flower producers

This diversity of cropping dictates the wide distribution of production nurseries into almost all areas of Australia and the movement of green-life across state borders and into towns, cities and agricultural/horticultural regions. The movement of this green-life has the potential to carry pests, diseases and weeds into areas otherwise free from these threats, which can impact adversely on nursery production, cropping systems, pastures and the wider landscape. The nursery industry has a responsibility to manage these risks and ensure that the green-life being distributed across Australia is pest, disease and weed free, and is of minimal threat to the rest of agriculture/horticulture as well as the general environment.

Australia averages approximately 40 emergency plant pest incursions per year. Most of these are identified relatively

early and are eradicated or put under an eradication/management program designed to remove the pest from Australia within a suitable time-frame. The nursery industry is, on most occasions, impacted on at some point during the incursion response at either an individual or industry level, costing growers significant reductions in financial returns. This loss can be generated through market access restrictions, compliance costs and crop destruction, or quarantine restrictions that impact on product supply and distribution.

Having an on-farm program that demonstrates a process of managing the risks associated with biosecurity will assist growers in meeting their broader obligations and gain recognition at a government level. Ensuring on-going market access is a priority for any business, therefore a rigorous process that protects enterprises from internal and external biosecurity threats is a valuable addition to management structures.



Marlborough Nursery – crop inspection at dispatch.

Hazard Analysis Critical Control Point (HACCP)

Hazard Analysis Critical Control Point (HACCP) is the world recognised standard in risk management processes. It is a formal process of risk/hazard identification, nominated risk control points and a verification process used to consistently manage threats to the production cycle. BioSecure HACCP has been developed under the 12 defining principles of HACCP providing a credible risk identification and management process.

The BioSecure HACCP risk management system encourages a business to maintain the strictest internal quarantine procedures possible and record the actions taken at critical control points. With improved hazard analysis and control measures in place the business is better protected in the event of a biosecurity threat or impact. Importantly, the process will support future market access both domestically and internationally.



Tropical exotics – crop monitoring in palms.

BioSecure HACCP assists in:

- Protecting market access
- Recognising investment in biosecurity
- On-site assistance in HACCP identification
- Pest/disease management reducing losses
- Providing customer confidence in product
- Reduced costs via government co-regulation
- Positioning a business for export

BioSecure HACCP addresses:

- Internal quarantine disciplines
- Effective crop monitoring models
- Nursery production biosecurity hazards
- Biosecurity critical control points
- Nursery production hygiene processes
- Plant protection systems
- Surveillance, monitoring & recording

Biosecurity and the horticulture industry

Industry peak bodies, including Nursery & Garden Industry Australia (NGIA), are working with Plant Health Australia (PHA) to become involved in the biosecurity process and have input into decisions made and methods employed in the future management of biosecurity threats. Industry involvement may ensure that all decisions and directions taken address broad industry concerns, but can not possibly focus on the needs and wants of each individual business.

Industry bodies are developing and introducing programs to assist businesses in managing the risk of biosecurity now and into the future. The nursery industry believes that an on-farm program such as BioSecure HACCP will provide growers with a valuable tool to guide in implementing a whole-of-industry biosecurity strategy.



Redlands Nursery – crop monitoring including root ball.

Nursery industry biosecurity

NGIA believes the long term sustainability of the nursery industry is through effective management of future key threats and risks. Membership of PHA has made possible the development of the NGIA Biosecurity Plan which both aims to minimise the incursion of new pests and diseases and also provide a mechanism with which to manage any such incursions. The nursery industry has also joined other industries and governments around Australia with the signing of the Emergency Plant Pest Response Deed (EPPRD). The EPPRD has been set up to provide the legislative and financial framework to manage specific pest and disease incursions as they occur. The deed clearly outlines how outbreaks will be managed and how governments and the industry will share the cost.

Nursery enterprise biosecurity

Biosecurity poses threats to the productivity and marketability of nursery products. The early detection and identification, along with positive preventative and response strategies, may be the key to long-term nursery sustainability.

Market access will no longer be guaranteed by product and quality alone. Increasing competition and the raising of standards will result in restricted access to some local and international markets in the future unless additional concessions and conditions are met.

Growers will be required to demonstrate that their products are produced in an environmentally sensitive manner, are safe, and that they are free from unwanted pests, diseases and weeds. Growers will need to use their experience and common sense, implement good biosecurity and farm hygiene measures, and adopt established industry best management practice programs to safeguard their production and markets.



Pohlmanns Nursery – Pest monitoring with sticky traps

Growers will need to apply on-site safeguards to provide individual property protection, a range of checks and balances that can be recognised as providing management and control to any biosecurity risk. A risk assessment process that can be demonstrated is essential to maintain market access.

The aim of any nursery biosecurity system should be to keep the site and stock free of unwanted pest, disease or weed threats by prevention, early detection and planned, managed response strategies.

The development of BioSecure HACCP under the HACCP methodology has identified the potential hazards and risks associated with the processes of nursery production. It has also defined the critical control points and the actions that a business needs to take at these control points, to manage the potential impact on the business and to external stakeholders.

BioSecure HACCP also provides templates for recording the various actions and strategies the business applies to manage their biosecurity risks. Records are an important tool in demonstrating that an activity has taken place, as well as providing valuable traceback/traceforward information that can be used to validate a particular decision.

An example is the introduction of a pest into the business through imported green-life, for example; tubestock. The hazard is the introduced pest, the risk is the volume of green-life imported onto the site, therefore the higher the volume the greater the risk of introducing the hazard (pest). The critical control point(s) are;

- 1) the supplier and the biosecurity system they have in place and
- 2) introduction of green-life on-site and the inspection, treatment and placement of the green-life once on-site.

The record is an approved supplier list, a plant import inspection register, pesticide treatment diary and a policy of imported stock being placed in a quarantine area.

To gain the formal BioSecure HACCP Certification a business must first achieve NIASA accreditation. A business may choose to apply any aspect of BioSecure HACCP while working towards certification.



NGIQ Industry Training (pest and disease identification)



Tropical exotics – recording pest monitoring

The bottom line

BioSecure HACCP is the on-farm biosecurity program for production nurseries in Australia. The BioSecure HACCP risk management system encourages industry businesses to maintain the strictest internal quarantine procedures possible and record the actions taken at critical control points. Having a sound risk management strategy such as this ensures industry businesses remain protected from biological risks.

More Information

To access a copy of the Biosecure HACCP guidelines contact your State Nursery and Garden Industry Association.

Acknowledgements

John McDonald is Industry Development Manager for Nursery & Garden Industry Queensland (NGIQ).