

Northern Australia Biosecurity Training Program 2019

In 2019 a series of workshops were introduced to improve plant protection and biosecurity capabilities of production nurseries in Northern Australia. Workshops were organised by Greenlife Industry Australia (GIA) and the Northern Territory Government, with funding from the Australian Department of Agriculture. The objective was to improve plant protection programmes in Northern Australia's production nurseries by hosting industry workshops and hands on demonstrations. These activities have delivered the training and resources required to minimise exposure to biosecurity risks.

Workshops included locations in Queensland, Western Australia and the Northern Territory. These comprised of two stages. The first stage provided information and training. Material on the elements of biosecurity, the principles of IPM, beneficial organisms and their use, were presented by industry professionals from [GIA](#) and [Biological Services Australia](#) (BSA). Attendees then underwent training in the BioSecure HACCP crop monitoring procedures and were given assistance to develop a pest management programme for their business.

Additional resources were provided. These included the Nursery Production [Farm Management System \(FMS\) production website](#) and copies of the [Nursery Industry Accreditation Scheme Australia \(NIASA\)](#) and [BioSecure HACCP](#) manuals. The site-specific pest management plan developed by each participant was then further developed in stage two of the workshops at a follow-up date.



Darwin workshop 2019

In the second stage, a BSA consultant visited each workshop region. The BSA consultant provided onsite feedback on the pest management plans from step one. This phase gave growers a chance to address concerns about their pest management plan and refine them with the help and guidance of a Biological Services professional.



Kununarra site visit 2019

Evaluation of the program was undertaken by using a survey at the beginning and end of the project. Participants self-assessed their knowledge of biosecurity and pest management concepts, comparing their knowledge and understanding of biosecurity and plant protection before and after the workshops. The following table provides some detail of the survey.

Table 1. Survey (Start) and Survey (End) Questions and Responses.

Survey question	Start of project	End of Project
Have you heard about BioSecure HACCP?	No.	Yes.
Do you believe you have biosecurity practices in place?	Yes, in some form.	Participating nurseries felt that their biosecurity knowledge had increased significantly. Time remained a factor. Though there was an awareness that once set up, best management practices were worth the effort.
What do you see as the key challenges for your business to allow for better biosecurity?	Time.	
How often does your nursery carry out monitoring of stock?	Ad Hoc to never.	Monitoring of stock in all cases is still not carried out at the required intervals. However, awareness and knowledge of techniques have improved.
In your opinion, how technically skilled are your staff at inspecting plants and plant material for signs of pests and disease?	50:50 moderate to basic levels of knowledge.	In most cases, this has not changed a great deal. However, the project has empowered nursery managers with the resources to upskill their staff.
Do you use chemicals on your property? If yes, how is this determined, and how often would you spray?	88% of participating production nurseries use chemicals on an as needs basis. Application costs for labour and materials aren't recorded.	This remains the same. However, chemicals are being used more smartly. Chemical use is supported through more targeted monitoring and knowledge of alternate options available. i.e. IPM.
Do you use beneficial organisms for pest control? When would you release?	11% of participating nurseries use beneficial organisms when a pest issue is noted	50% of the production nurseries were interested in performing beneficial releases and were in discussion with Biological services or Bugs for Bugs. Most businesses felt more confident with knowing when to release beneficial organisms because of the workshop.
Do you disinfest your pots when recycling them for use?	Most of the production nurseries recycle their containers but may not have correct disinfestation practices.	All businesses have implemented disinfestation practices or upgraded their containers storage.
Do you have a quarantine area, and do you inspect incoming and outgoing stock?	Most had no quarantine area, with incoming stock not inspected in a standardised way.	While practices have not changed awareness of the need has increased.
Do you have staff training records?	No	Businesses are now aware of the free resources available online through GIA to train staff.
What are the training needs of your staff?	Pest identification, optimum use of beneficial organisms.	Businesses would like further/ongoing training in IPM.



Crop monitoring in Broome 2019

End of workshop participant feedback was collected and overall reflected a positive learning experience.

“Theory was very interesting, and a lot of resources either supplied or links to websites and identification tools provided,

will prove handy. As I haven't had much experience identifying harmful/beneficial insects that part was a little over my head - however to the process to keep an eye out for them seems fairly straight forward, if only enough to get a good pic and ask for help. Thanks again”

“Was a great workshop to be a part of, expanded on existing knowledge from TAFE (Cert 3 horticulture) would love to attend a workshop regularly, e.g. once a year.”

“Well presented. Very good resource material. Expertise and advice very much appreciated. Thank you.”

The feedback from this project has highlighted industries appetite for the tools to manage biosecurity issues and improve plant protection skills. By further developing industry knowledge and understanding of these issues, projects like this can enhance industry resilience to biosecurity incursions and protecting trade.

While the funding for this particular project has finished, the Northern Territory Government have indicated their continued support for improvement to local business biosecurity practices. Interim response to these findings will be the development of a series of factsheets summarising the BioSecure HACCP guidelines, which will be made freely available through the [Northern Territory Government website](#).

For information on workshops held by [GIA](#) subscribe to the [Your Levy at Work e-newsletter](#) or check with your state Nursery Industry body.

Further information from the project is available through the following links:

FMS production website: <http://nurseryproductionfms.com.au/>

Biological Services: <https://biologicalservices.com.au/>

Workshop presentations: <http://nurseryproductionfms.com.au/download/implementing-plant-protection-programs/>
<http://biologicalservices.com.au/grower-presentation.html>

Nursery & Garden Industry Queensland Pest ID tool: <https://pestid.com.au/>

Integrated Pest Management in Ornamentals Information: <http://era.daf.qld.gov.au/id/eprint/2208/>

Australian Pesticides and Veterinary Authority website: <https://apvma.gov.au/>