NURSERY PAPERS

Tips and Tools to Make Plant Protection Easier

THE CHALLENGES

High costs and changes to pesticides mean new challenges.

The rising costs of new pesticide technologies, coupled with ongoing government, retail and consumer scrutiny and the potential phase-outs of existing active substances, pose significant challenges to the production nursery industry.

When you add labour costs into the mix, it's more important than ever to implement efficient pest management strategies that prioritise early intervention and make the best use of your resources.

BACKGROUND

The production nursery industry produces more than 30,000 different plant species/cultivars, supplying a broad range of customers, including:

- the ornamental retail market
- vegetable, fruit and nut growers
- plantation timber landscape
- re-vegetation and rehabilitation sectors.

Australia averages around 40 emergency plant pest incursions each year – the nursery industry is often affected by these incursions (NGIA 2016).

The General Biosecurity Obligation obligates producers to take all reasonable and practical steps to prevent or minimise biosecurity risks. So, you need the skills and resources to implement plant protection and biosecurity measures to meet this obligation. Effective monitoring of plants for pests and diseases is also important for meeting customer expectations of high-health, quality plant products.

Best practice plant protection

Best practice plant protection involves:

- regularly and systematically monitoring incoming and outgoing greenlife
- recording the findings over the crop life, regularly and systematically
- reporting emergency plant pests.

In May 2018, the Department of Agriculture and the Nursery and Garden Industry Australia tasked the CSIRO with surveying the production nursery industry to discover what factors influence the uptake of plant protection measures such as crop monitoring. Interviews with production nursery owners and operators gathered data on motivations and barriers to performing plant health monitoring activities.

Barriers to best practice plant protection

The study showed, the biggest barriers to implementing best practice plant protection are:

1. lack of knowledge or skills to monitor crops
2. lack of support/extension
3. the view that recording activities is time consuming and lacks any real benefit
4. staffing issues
5. costs associated with performing inspection and surveillance activities
6. distrust of the biosecurity system and government.

Greenlife Industry Australia (GIA) has addressed the needs of producers to remove some of those barriers.

GIA's solutions to best practice plant protection challenges

1. FREE RESOURCES TO BUILD KNOWLEDGE AND SKILLS FOR CROP MONITORING

GIA provides a large range of free resources for effective crop monitoring, including pest and disease identification, plant protection and biosecurity systems, and implementing best practice in your business. You can use these tools for training staff, or for toolbox meetings and the like.

FREE RESOURCES

i. Australian Plant Production Standard website – *nurseryproductionfms.com.au/biosecurity*

The levy-funded Australian Plant Production Standard (APPS) website provides free access to technical information for the production nursery industry, including:

- pest and disease identification information, produced by Grow Help, in a range of formats, such as webinars, pest identification fact sheets and integrated management plans – visit: **nurseryproductionfms.com.au/pests-diseases-weeds**

- biosecurity information specifically for Australian production nurseries.

If you have questions about producing plants, visit the technical information page at nurseryproductionfms.com.au/downloads

ii. Pest ID Tool – *pestid.com.au*

The free levy-funded Pest ID Tool, created by Nursery & Garden Industry Queensland and GIA provides up-to-date information on pests, diseases, weeds and beneficial organisms. The profile for each organism includes:

- a description of the pest morphology (appearance)
- photos
- information about lifecycle
- descriptions of harm caused
- treatment options and recommendations
- integrated pest management (IPM) and biological controls
- links to other resources.

The Pest ID Tool is regularly updated and has been developed especially for production nurseries.

Register for an account and sign in for free at pestid.com.au

TIP: consider adding a shortcut to your phone home screen.

iii. Industry-focused e-Learning courses

Great for staff training, the suite of courses comprises 52 free modules including *BioSecure HACCP – Crop Monitoring, an introduction to integrated pest management, and performing a despatch inspection.* Once you complete the course, you receive a certificate.

iv. GIA YouTube channel – *www.youtube.com/@ausngi*

You and your staff can choose from more than 150 videos on subjects including: how to perform crop monitoring, producing high health crops, and preventing disease in production nurseries. These free training videos will help inform up-to-date best practice.

v. Mini technical skills courses – *nurseryproductionfms.com.au/technical-service-providers*

If your business has any of the APPS program credentials – Nursery Industry Accreditation Scheme Australia (NIASA), EcoHort or BioSecure HACCP – you can access 22 free mini technical skills courses to train staff on program procedures.

Your local GIA Extension Officer can deliver these in person on site, or via video conferencing. Each course takes about 30 minutes to complete, with certificates of completion for attendees.

Topics include biosecurity elements, such as performing inspections and crop monitoring, creating pest management plans, and pesticide resistance management.
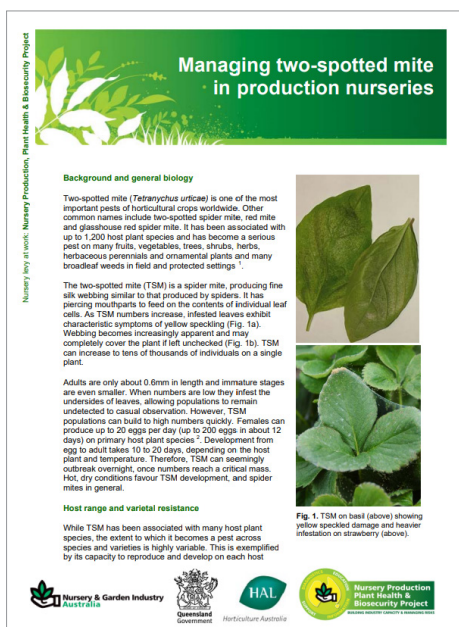
For a list of courses available to your nursery, or to arrange for course delivery, contact your local GIA Extension Officer via phone, email or the website at nurseryproductionfms.com.au/technical-service-providers

vi. Grow Help Australia diagnostic tests – *www.daf.qld.gov.au/business-priorities/biosecurity/plant/health-pests-diseases/grow-help-australia-sample-submission-form*
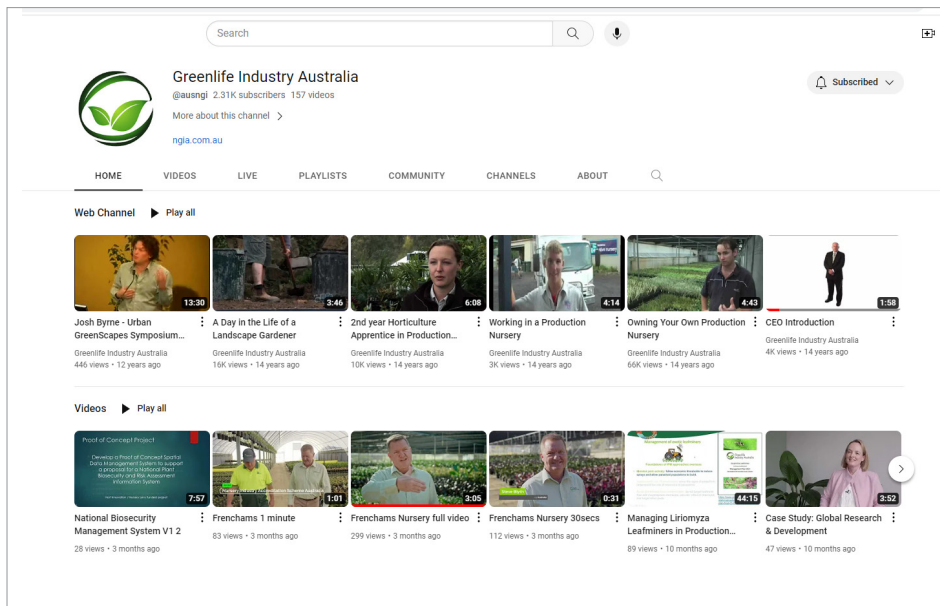
In a levy-funded initiative, Grow Help Australia offers each production nursery six free diagnostic tests each year to production nurseries for plant pests and diseases. This is a great service if receiving professional crop inspections by an agronomist is out of scope. In instances where you have a plant pest or disease that you can't identify, just send a sample to Grow Help. This free service has been developed as part of a levy-funded project called *Resourcing, supporting and assessing biosecurity in nursery production* (NY20000), which ends in December 2025.
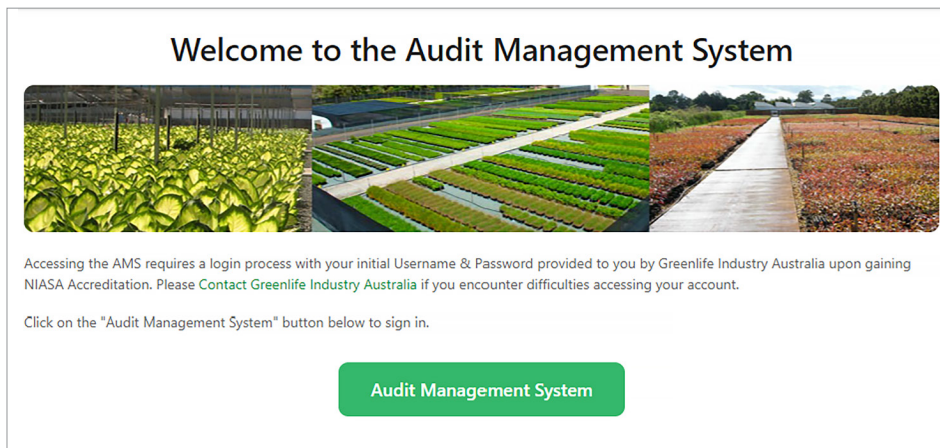
ABOVE: *The Pest ID Tool*

ABOVE: *Greenlife Industry Australia YouTube channel*

ABOVE: *Fact Sheet*

ABOVE: *GIA Audit Management System (AMS)*

2. GIA SUPPORT AND EXTENSION

GIA's Extension Officers service every Australian state and territory. They are available on site, online and via phone to offer technical advice on all things related to plant production.

Contact your local GIA Extension Officer via phone, email or the website at *nurseryproductionfms.com. au/technical-service-providers*

3. GIA TOOL TO STREAMLINE CROP MONITORING AND BUSINESS RECORDKEEPING

For APPS accredited businesses, GIA provides the Audit Management System platform (AMS). This system lets you digitise records on crop monitoring, chemical application and inventory management and import/despatch inspections via your mobile device and desktop. You can export your data as a spreadsheet for analysis.

The benefits of deliberate, systematic crop monitoring via AMS include:

- informing business decision making

- making informed predictions on speed and degree of pest or disease infiltration based on historical data, this can be cross-referenced with weather patterns to better prepare for seasonal challenges

- reducing blanket chemical spraying and moving to spot spraying initial populations before they expand.

- Inspections of imported and despatched greenlife inhibit the entry of pest and disease to the production space and provides evidence of the quality of goods supplied or despatched, for example if there's a dispute with a customer or supplier.

To access the GIA AMS, contact your local GIA Extension Officer via phone, email or the website at *nurseryproductionfms.com.au/technical-service-providers*

GIA's solutions to best practice plant protection challenges *continued*

4. GIA COURSES TO UPSKILL YOUR STAFF

Training your staff equates to cost savings and more profit.

Deloitte says:

Training your staff delivers a strong return on investment, staff retention and higher profits. "Employees who feel recognised and are offered training opportunities as a result, are more inclined to feel greater satisfaction towards their job. Training helps them to feel a sense of challenge, purpose, and growth, which are fundamental ingredients for a career with most organisations"[1].

Another article describes the cost of employee disengagement for the Australian and New Zealand economy is around $70 billion a year. The article classifies employees as engaged, disengaged, and actively disengaged; the most damaging to businesses being the actively disengaged employees who stay

Providing opportunities for employee development beyond their day-to-day duties boosts strengths and potential, and increases engagement. Developing a culture of continuous improvement creates loyalty and drives high performance, building business profitability and retaining customers as they interact with a familiar staff member who knows them, their history and can provide tailored advice[2].

To access training for your staff, contact your local GIA Extension Officer via phone, email or the website at *nurseryproductionfms.com.au/ technical-service-providers*

5. UNDERSTAND THE BENEFITS OF INSPECTION AND SURVEILLANCE ACTIVITIES

Although there are extra duties associated with implementing best practice plant protection measures, the benefits outweigh the costs of implementing them. These include:

- improved crop quality
- prevention of pests and disease entry into the nursery
- early pest and disease detection and easier control
- reduced costs caused by pests and disease – such as throw-outs, quality loss, chemical and labour costs, and reputational loss
- improved business reputation as a clean stock grower
- better data for analysis, business forecasting and decision making to achieve greater efficiencies.

6. ASSISTANCE NAVIGATING THE NATIONAL BIOSECURITY SYSTEM

Interpreting state biosecurity regulations can be a challenge but GIA can help you to operate more easily in the market access space.

The world-leading APPS BioSecure HACCP certification, provides a for implementing high health plant protection and biosecurity in your business. BioSecure HACCP accredited businesses:

- are known for their dedication to continuous improvement
- receive support and representation from GIA in state market access issues
- are more efficient producers with reputations for producing high health plants and products
- have free access to digital record keeping
- can self-certify their intrastate and interstate plant exports, saving time and money on government inspections.

BioSecure HACCP (and the APPS programs) are tax deductible.

To speak about tailoring the BioSecure HACCP program to your business needs contact your local GIA Extension Officer via phone, email or the website at *nurseryproductionfms.com.au/ technical-service-providers*

REFERENCES

1. Peters, L., 8th July, 2022, "The benefits of investing in staff training", *https://www.deloitte.com/au/en/Industries/consumer-products/perspectives/benefits-investing-in-staff-training.html*, viewed 29/09/23.

2. Tucker, S., (2018), "The cost of employee disengagement", *https://www.linkedin.com/pulse/cost-employee-disengagement-sarah-bullen*, viewed 29/9/23

3. Loechel, B., Hobman, E. V., Collins,K., Robinson, C. J., Singh, J., Pavey, C.R., Chilcott,C., (2018), "Improving grower-led surveillance: Case-study of the Nursery Production Industry", CSIRO Australia.

4. Nursery and Garden Industry Australia (NGIA) (2016). BioSecure HACCP: Guidelines for managing biosecurity in nursery production (2nd Edition). Nursery and Garden Industry Australia Ltd, Sydney.

Past Nursery Papers: *https://www.greenlifeindustry.com.au/communications-centre*

Hort Innovation — NURSERY FUND

Greenlife Industry Australia