

NURSERY PAPERS

MAY
2024

PEST ID Tool REDESIGNED AND RELAUNCHING

WHAT'S HAPPENING?

Identifying and managing pests, diseases and weeds quickly is vital to maintaining a profitable plant production business.

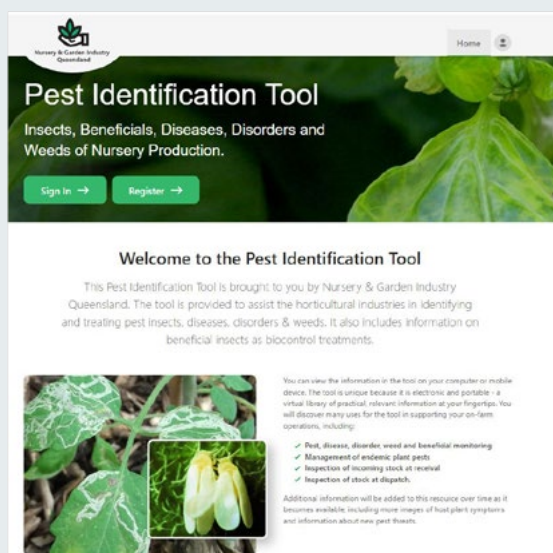
The *Pest Identification Tool* at www.pestid.com.au can help!

Relaunching in June, the Pest ID Tool has undergone a major redesign to address limitations in the old program.

The new modern real-time platform will become a valuable resource for all horticulture industries.

The Pest ID Tool has been developed by Nursery & Garden Industry Queensland (NGIQ), with support from Greenlife Industry Australia, Plant Health Australia and nursery levy funds through Hort Innovation.

Nursery production serves as the cornerstone for many horticultural cropping systems, providing 'starter plant stock' essential to various sectors across plant production supply chains. So, the pest and disease information within the tool is relevant to all interconnected industries.



New landing page

Key improvements

BETTER DATA

The virtual library now holds over 3,000 entries. Users can search the database by pest name, keyword, type (pest, disease, nutritional disorder, weed) or specific categories (caterpillar, aphid, beetle). Alternatively, users can browse all entries in a category by accessing the individual databases.

The new platform will also increase the speed of adding new information and photographs to ensure databases are kept up to date.

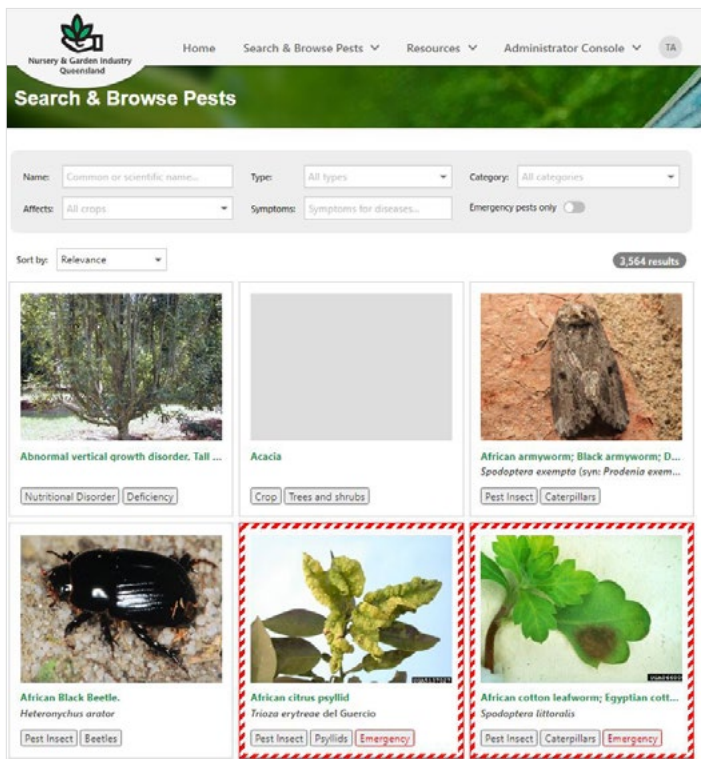
The addition of 'pests of importance' on the landing page will allow rapid responses to any new pest incursions that occur. The ongoing expansion of the content will lead to an increasingly comprehensive and practical library of pest related information for all plant and crop producers across the horticultural industries.

IMPROVED ACCESSIBILITY AND INTEGRATION

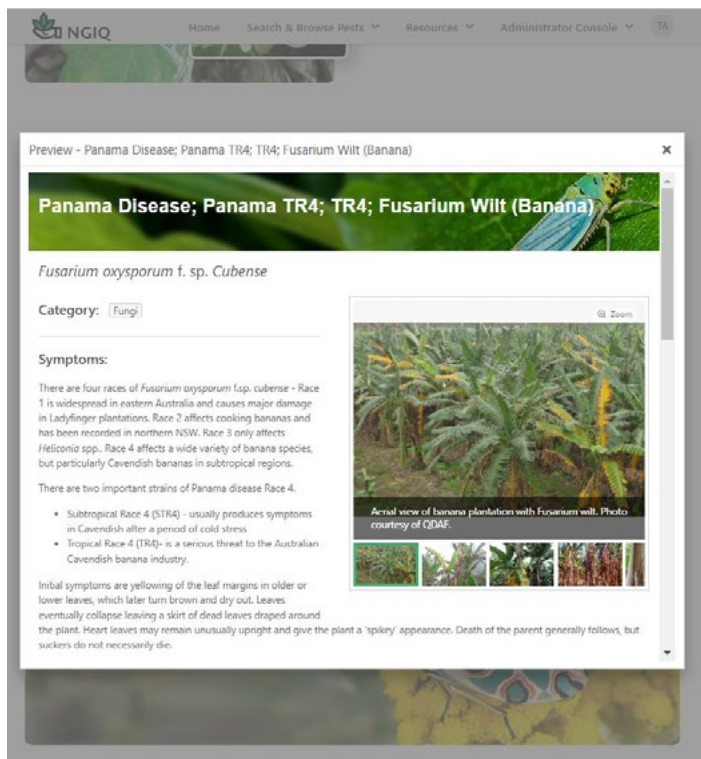
The upgraded platform is accessible from digital devices, including computers, tablets and smartphones, making it more suitable for both field and office use.

Users will enjoy a faster search response and improved photo resolution for easier pest identification, as well as enhanced resource integration capabilities like videos and IPM management links.

For a complete list of improvements, see the 'Upgrades' section on page 4.



Search page



Preview page

Pest ID Tool CONTENT

CURRENCY

The tool's information is curated from national and international research groups, government departments, universities and extension organisations. Such comprehensive sourcing ensures growers have access to the latest and most relevant insights.

Moreover, when plant pests are detected in Australia, emergency updates are swiftly uploaded, often within 24 hours of notification.

David Hunt, Smart Farming Project Officer at Greenlife Industry Australia, plays a pivotal role in the continual improvement of the Pest ID Tool. He ensures that the tool remains up-to-date with new pests and pertinent information.

"Once growers integrate the tool into daily crop monitoring routines, it swiftly becomes an indispensable resource," Mr Hunt said.

PHOTOS – PESTS AND SYMPTOMS

Images and videos support the text-based data.

"We include photos selected to mirror what a grower will observe in the crop, such as showing disease symptoms, feeding damage and pests at different life stages," said Mr Hunt.

"For pests that may not be readily visible until symptoms manifest, such as mites or certain diseases, the photo database offers a comprehensive list of symptoms and accompanying images.

This helps growers in diagnose issues promptly and effectively," he said.

"Early detection is paramount for Australian agriculture and horticulture industries to mitigate potential economic losses. So, this feature is key to identifying pests, like the Fall Armyworm."

INTEGRATED PEST MANAGEMENT

"In addition to its role in pest identification, the Pest ID Tool provides integrated pest management (IPM) options and facilitates access to further research and extension materials. In this way, it serves as a valuable resource for biosecurity inspections during the importation or dispatch of plants," said Mr Hunt.



Pest ID Tool USES

YOU WILL DISCOVER MANY USES FOR THE TOOL IN SUPPORTING YOUR ON-FARM OPERATIONS, INCLUDING:

- pest, disease, disorder, weed and beneficial monitoring
- management of endemic plant pests
- inspection of incoming stock at receipt
- inspection of stock at dispatch.

Pest ID Tool HISTORY

The National Greenhouse Integrated Pest Management (IPM) project, funded by Horticulture Australia Ltd (HAL) and completed in 2000, produced the first pest and disease identification resources: *Agrilink Integrated Pest Management in Ornamentals: Information Guide*, and the pocket-sized handbook, *Pests, Diseases, Disorders and Beneficials in Ornamentals: Field Identification Guide*. These resources were valuable but limited by portability and the limitations on updates.

In 2009, a project by Nursery & Garden Industry Queensland (NGIQ) and HAL converted these guides into an electronic database for mobile phones, Personal Digital Assistant (PDA) and PCs. The database featured 200 factsheets and 782 images, allowing real-time pest and disease identification in the field, enhancing on-farm operations.

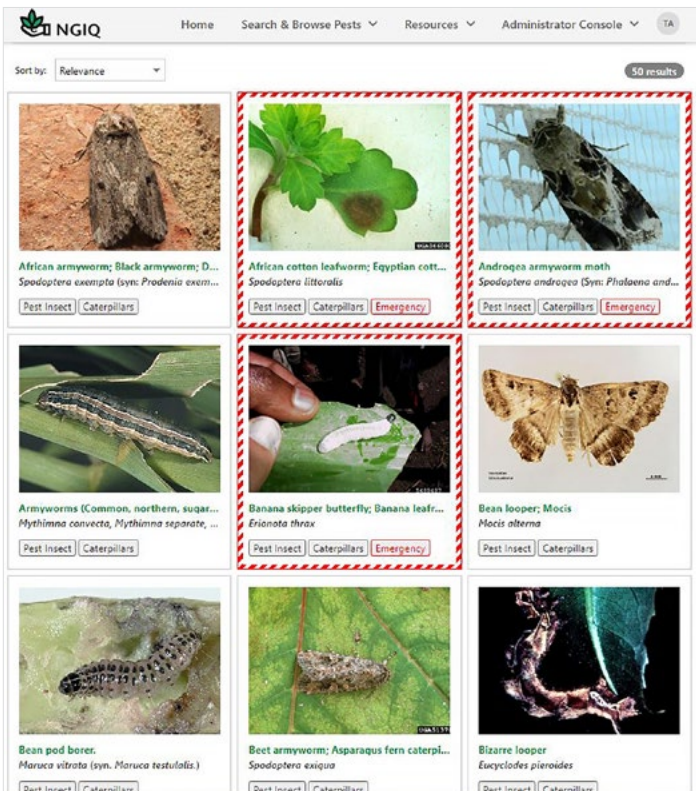
In 2014, NGIQ and the Queensland Department of Agriculture and Fisheries (QDAF) launched the

first iteration of the www.pestid.com.au website for broader digital access. A subscription fee supported functionality improvements and expanded content.

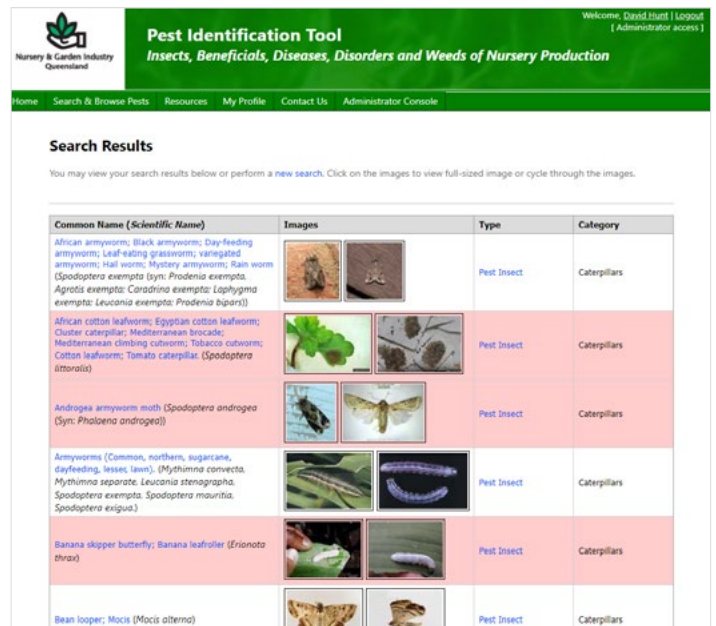
By 2016, the site was upgraded for better user experience and interactivity, with a part-time employee managing updates and new entries.

In 2019, funding from PHA, Hort Innovation Nursery Fund made the Pest ID Tool free for all users, evolving into a comprehensive online resource with weekly updates.

By 2024, after 18 months of development, the Pest ID Tool was further upgraded to include more pests, beneficial insects, weed species and emergency pests. This modern, real-time resource supports field identification and offers detailed information on pest habits, hosts, life stages, damage and biocontrol methods, aiding production managers in quickly addressing crop issues.



Example of caterpillar database – new platform



Example of caterpillar database – old platform



Pest ID Tool UPGRADES

Upgrades made to the Pest ID Tool over the last 18 months, include:

USER UPGRADES

1. Enhanced website

- A new simplified text layout to make reading the information easier
- An improved website platform for quicker loading and pest searches
- An upgrade to the latest DevExpress forms to allow any operating system to access and read the website
- One website for all devices – an enhanced responsive layout to automatically change screen layout and resolution depending on device (e.g. tablet, mobile, desktop)

- Provision for greater information resource pages with links to important websites/information

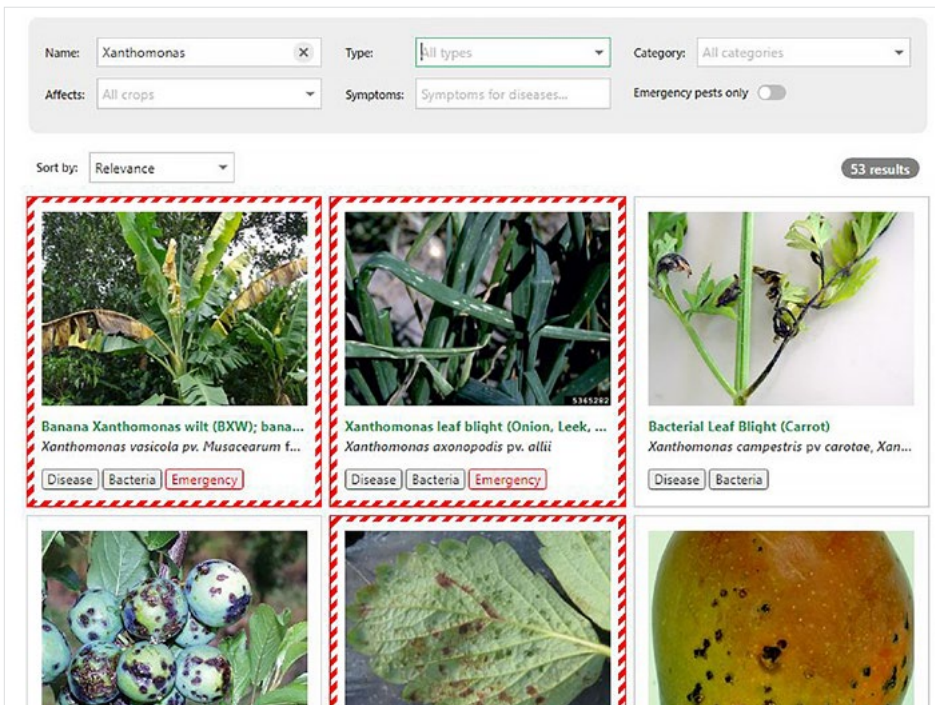
2. Improved search facilities

- A simplified search function with increased search filter options
- Combined searching on one page – search by
 - pest and crop
 - pest damage e.g. damaged flowers, seeds, roots, or leaves
 - pest type e.g. bug, beetle, aphid, mite, etc.
 - insect morphological traits (e.g. hard shell, 6 legs, wings, sizes)
 - disease and crop
 - disease and plant type
 - disease attributes (e.g. wilted leaves, stunted growth, rust spots)

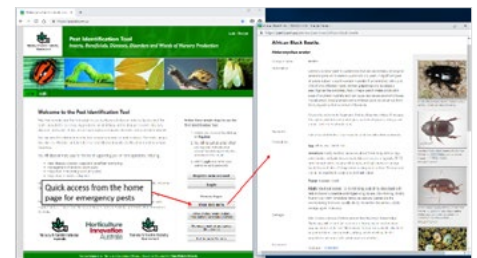
- beneficial insects
- weed species
- Browse individual pest or disease databases
- Remember search results for quicker viewing options
- Optimised search result page with most relevant first

ADMINISTRATION UPGRADES

- Removal of the subscription fee and requirements
- Improved text formatting to highlight important information
- Enhanced editing functions for quicker pest or disease information updates
- Improved media support for higher resolution photos and the addition of videos
- Improved database security to protect user information
- Improved user interaction capability for quicker online help



Search results showing emergency pest with red strip



Old landing page

ATTRIBUTION

The 'National biosecurity and sustainable plant production program' (NY20001) project is funded by Hort Innovation using nursery research and development levy and funds from the Australian Government.

MORE INFORMATION, LINKS AND FURTHER RESOURCES

To access the tool, visit www.pestid.com.au

Past editions of nursery papers are available online on the Greenlife Industry Australia website: www.greenlifeindustry.com.au/communications-centre?category=nursery-papers

Hort Innovation NURSERY FUND

This project has been funded by Hort Innovation using the nursery research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au