

Spot It, Snap It, Stop It: New App Helps Growers Tackle Weeds Smarter

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Weeds pose a serious threat to Australia's environment and agriculture, inflicting significant economic, environmental and social costs. They damage natural landscapes, farmland, waterways and coastal ecosystems ranking among the greatest challenges to both our natural environment and primary production industries.

More than just a nuisance, weeds are an expensive, persistent and often underestimated threat. They cost Australian agriculture around \$4.9 billion each year, while also posing health risks to people, pets and livestock. The true environmental toll is harder to measure but is likely just as high, as weeds choke out native species and degrade ecosystems.

Because weed problems don't stop at fence lines, tackling them requires a coordinated effort across farms, regions and communities. Land managers and growers alike invest significant time and money every year trying to stay ahead of infestations and protect both productivity and biodiversity.

Mobile apps such as 'PlantSnap' and 'PictureThis' have revolutionised plant identification through artificial intelligence, offering instant suggestions from a single photo. These tools show how powerful quick, accessible diagnostics can be in spotting new or unusual plants early.

However, most existing apps are paywalled, designed for garden enthusiasts rather than land managers, and rarely clarify whether a plant is actually a weed of concern. They also stop short of connecting users with local management advice or the reporting channels needed to act on those discoveries.

That's where WeedScan™ steps in. The app not only identifies plants but links users directly to verified weed profiles relevant to their state or territory, helping them understand what they're dealing with and how to manage it. If a priority weed is detected, users are prompted to submit a record, automatically notifying government weed officers where appropriate.

Every public record contributes to a national weed map, allowing users to see what's being reported nearby and helping authorities track potential incursions in real time. In short, WeedScan turns everyday weed spotting into a coordinated national defence.

How does it work?

Simply snap a photo of a plant you suspect is a weed and upload it to WeedScan. The AI model compares your image against verified photos of known weeds, generating a list of possible identifications with confidence ratings for each suggestion, all within seconds.

WeedScan is available as a web platform or mobile app (Android and iOS). Developed by the Centre for Invasive Species Solutions, CSIRO, NSW Department of Primary Industries, and several state governments in collaboration with the Atlas of Living Australia, WeedScan™ has been trained to recognise around 270 priority weed species across the country.

Importantly, the tool has been tested in the field by farmers, agronomists, community groups, park rangers and NRM officers to ensure it works in real-world conditions. It bridges the crucial gap between identifying a weed and knowing what to do next.

This easy-to-use digital tool enables:

- Rapid identification of priority weeds without expert knowledge
- Direct access to best-practice management information

- Coordinated action at the farm, community or regional level

Australia's national approach to weed management is guided by the Australian Weeds Strategy, which focuses on three goals:

1. Prevention, detection and early intervention
2. Minimising the impact of established weeds
3. Building Australia's capacity and commitment to weed management

WeedScan helps deliver on all three. It's a simple, science-based tool that empowers growers to act early before weeds become economically damaging and impossible to manage.

Why does it matter?

In some cases, it's a legal requirement to report certain weeds, especially those listed as high-priority, notifiable, prohibited or alert species in your state or territory. These are weeds not yet established or in the very early stages of invasion, where early detection can make all the difference.

So next time you spot a suspicious plant in your patch, don't guess, grab your phone, open WeedScan, and be part of Australia's weed biosecurity frontline.



Native to south-eastern USA and Mexico, Bitter weed is an example of a prohibited invasive plant that Queensland growers should be on the look out for Photo credit: Dan Vickers

Resources

Read the 'Australian Weeds Strategy 2017-2027' by the Invasive Plants and Animals Committee at the industry Resource Library – visit bit.ly/BA-RL and search 'weeds'

Visit the weeds.org.au website to download the App or visit your phone's App store



apps.apple.com/au/app/weedscan/id6446067750



play.google.com/store/apps/details?id=com.weedscan

Visit weeds.org.au to connect you with further knowledge to make informed decisions about managing invasive weeds within Australia

Visit weeds.org.au/weeds-profiles to learn more about Weeds of National Significance

Visit weeds.org.au/report to learn more about the organisations that you can report weeds to in each state or territory

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