

What do weeds cost Australian vegetable growers?



Heavy chickweed (Stellaria media) infestation in a leafy vegetable crop

In 2019, the University of New England completed a case study assessment of the farm-level impacts of weeds in vegetable production, as part of Hort Innovation-funded project VG15070.

The economic impact of weeds was assessed on 19 vegetable farms in New South Wales, Victoria, Tasmania and Western Australia. Each case focused on a specific vegetable crop, and four organic farms were included in the case studies. The direct costs of managing weeds and their estimated economic impact on crop yield and quality were included in the evaluation.

Across the 19 farms, the weighted average reduction in operating profit due to weeds was \$2,090 per hectare, comprising \$1,403 per hectare net costs added due to weeds, and \$687 per hectare revenue lost due to weeds. The reduction in operating profit due to weeds on organic farms was approximately six times higher than in conventional (herbicide-focused) management systems.

A range of specific innovative weed control practices were also evaluated in 16 cases, including cover cropping and biofumigation, diligent hand weeding to reduce the weed seed bank over time, thermal weed control, stale seed beds, and inter-row tillage.



Hand weeding, Queensland



Inter-row tillage, Victoria

The per-hectare impact of adopting the innovative weed control practices on whole farm operating profit ranged from -\$5,586 to \$152,199. The impact was negative (reduced profit) in six of the evaluations, but positive (increased profit) for the other ten.

In many cases where the impact was negative, a range of benefits outside of weed control were noted but could not be valued. The economic impact of these practices might be positive for the farm overall, if all benefits could be accounted for.



Biofumigant cover cropping, Tasmania

Please visit www.une.edu.au/iwmvegetables and scroll down to 'Publications' to download the full report by Marshall et al.

You can also [click here](#) to download the report.

**Hort
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