

Key Messages:

- Pests and beneficials are found in a range of habitats in grain cropping landscapes throughout the year.
- Pastures play a key role in providing habitat for pests.
- Pests are often found on exotic weeds rather than on native plants.
- Remnants of native vegetation in good condition (i.e. Containing few weeds with an intact understory) may reduce the number of pest species and support beneficials.

IMPLICATIONS

- Management of weeds in pastures may be crucial for reducing pest outbreaks in crops.
- Weedy native vegetation patches may also be a source of pests – develop a weed control plan.
- If you are thinking about re-vegetation there are many 'low risk' native plants that don't harbour pests but do support beneficials.



For more information about Pest Suppressive Landscapes, Integrated Pest Management (IPM), IPM tips and tricks or upcoming workshops and training, visit the National Invertebrate Pest Initiative (NIPI) website at: <http://www.nipi.com.au/>

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Photo credits: a—h J. Hopkinson, DAFFQ; 1 C. Romero, CSIRO; 2, 3, 7, 8 & 9 CSIRO Entomology; 4 S. Macfadyen, CSIRO; 5 & 6 J. Wessels, DAFF; 10 K. Power; 11 & 12 D. McClenaghan, CSIRO



Department of
Agriculture and Food



Pest Suppressive Landscapes

Beneficials of Grain Crops: Where do they come from?

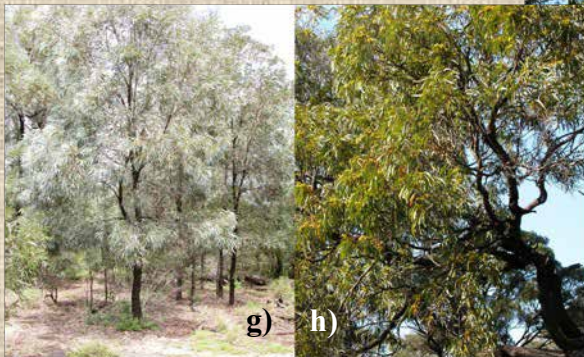
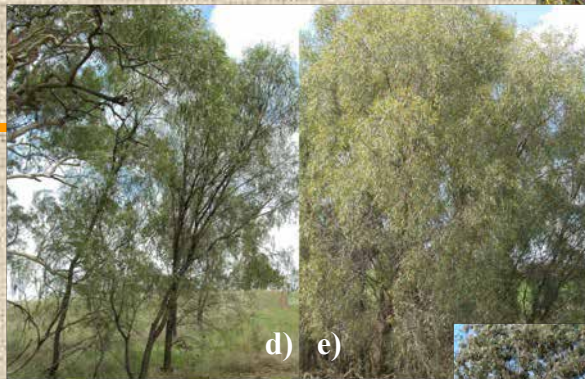
The key plants in QLD
that support beneficials.



Fold-out poster inside

Keep your friends close

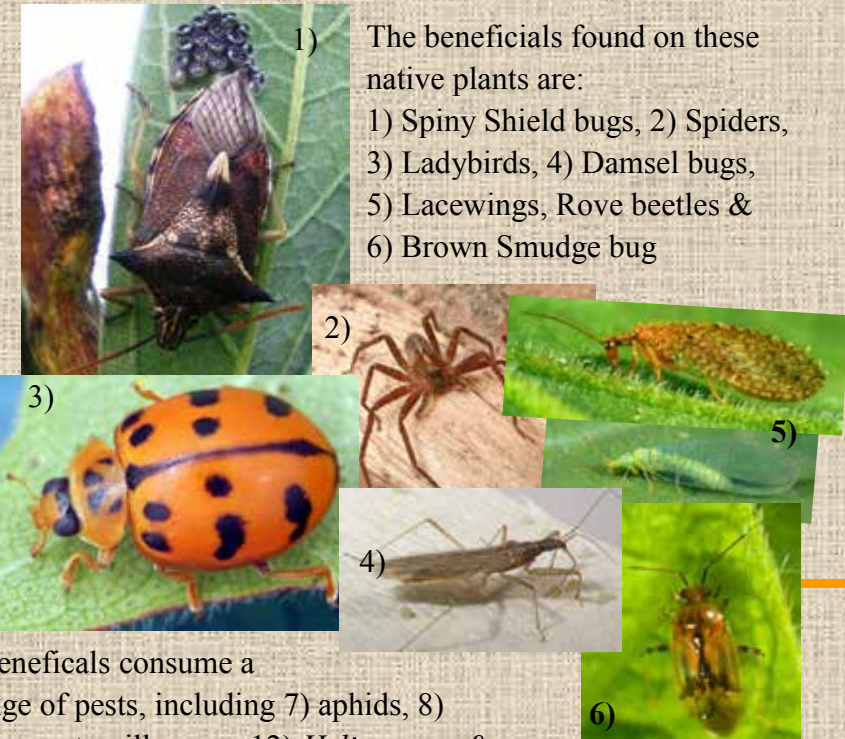
We monitored the numbers of key pests and beneficials over two years and found that pests are more commonly found on exotic weeds and beneficials are found on native vegetation.



Native plants support beneficials. The key plants identified in QLD were: a) Berry saltbush, b) Climbing saltbush, c) Black roly poly, d) Swamp and e) Sally wattle, f) Wilga & g) and h) Brigalow

"The enemy of your enemy is your friend"

Get to know your friends



The beneficials found on these native plants are:

- 1) Spiny Shield bugs,
- 2) Spiders,
- 3) Ladybirds,
- 4) Damsel bugs,
- 5) Lacewings, Rove beetles &
- 6) Brown Smudge bug

These beneficials consume a range of pests, including 7) aphids, 8) mites, caterpillars e.g. 12) *Helicoverpa* & loopers, moth eggs, scales and 9) whitefly. Spiders are generalists, eating most pests found in grain crops, such as 10) Rutherglen bug and 11) mirids.

Know your enemy



WHAT YOU CAN DO

By removing weeds and managing the native vegetation in and around your property, you can reduce the number of pests and increase the number of beneficials. This could reduce your pests problems and the need to spray.