

WEEDpak

AN INTEGRATED WEED MANAGEMENT GUIDE FOR THE AUSTRALIAN COTTON INDUSTRY

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What is WEEDpak?

WEEDpak is a compilation of information on the management of weeds in the Australian cotton industry. The major theme throughout WEEDpak is the management of weeds through integrated weed management (IWM) principles. It is a synthesis of extensive research on IWM conducted over the last 13 years, now released in one volume at the 11th Australian Cotton Conference. The entire document can be found on the Australian Cotton CRC website at www.cotton.pi.csiro.au and will be updated regularly in the future.

What is in WEEDpak?

The sections in WEEDpak include: -

1. *Weed identification guide.* This is the first cotton specific weed identification and information guide. The photographs illustrate a wide variety of growth stages for each weed including seedlings, flowers, seeds and mature plants. Information in the guide for each weed includes common and scientific names, details of confusions with other species, descriptions of all growth stages and a summary of the existing knowledge on the biology and lifecycle. This weed identification guide has been placed at the front of the folder for ease of access and will be updated regularly.
2. *Integrated weed management.* This section outlines the importance of IWM, explains the tools of IWM and then investigates how these tools are used for managing weeds in cotton farming systems.
3. *Herbicide resistance.* The herbicide resistance section explains how herbicide resistance can develop and what strategies can be used to avoid it.
4. *Herbicides.* The herbicide section sets out the various brand names and formulations of herbicides used in cotton and fallow fields. Some basic information is given about spray guidelines and the reader is referred to SPRAYpak for further information.
5. *Roundup Ready.* The advent of Roundup Ready cotton has resulted in a basic change in the management of weeds in Australian cotton fields. The information in this section is crucial for effectively managing weeds with Roundup Ready technology.
6. *Farm Hygiene.* While farm hygiene is one tool of IWM, its practice is crucial for managing weeds in cotton fields and in non-crop areas. Information of the management of volunteer cotton is also included in this section. The interactions that weeds have with plant pathogens and insects have been highlighted with the reader referred to the

Integrated Disease Management guidelines and ENTopak for more information on these two areas.

7. *Best bet management guidelines.* Again, this information is another first for the Australian cotton industry. The Best bet management guidelines are a compilation of management options derived from a series of interviews and discussions with growers, on-farm agronomists and consultants. Information on a range of major weeds encountered by Australian cotton farmers is included. For an example of this information, please refer to the paper *The Distribution and Management of Bladder ketmia, Anoda weed and Velvetleaf in Australian Cotton Farming Systems* in these proceedings.
8. *Management of problem weeds.* This section provides specific in-depth management information on a number of problematic weed species in cotton including the nutgrass species, cowvine and polymeria take-all.
9. *Rotation crops.* As more and more rotation and trap crops are grown, weed management in these crops will become more important. The information in this section currently covers pigeon pea trap crops.
10. *Appendices.* Information on regional weed distribution, further reading, a weed list, a glossary and abbreviations list are all contained in this section.

WEEDpak authors

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