



Controlling volunteers

A recent industry survey showed that volunteer cotton was most prolific in back to back cotton fields, and that an integrated, consistent approach is the key to effective control.

In November and December 2014, CottonInfo’s technical specialist for volunteer and ratoon cotton, Ngaire Roughley surveyed the presence of volunteer cotton across QLD and Northern NSW in an effort to assess the distribution and abundance of early season volunteers.

The aim of the survey was to collect a data set that quantitatively represents the in-field volunteer population over the 2014-15 season. This season, the results showed high numbers of volunteers across all of the areas surveyed (see Figure 1).

“From Emerald to Gunnedah, volunteers are not exclusive to one region – it’s an industry-wide issue which requires a multi-faceted, targeted approach to management,” Ngaire said.

The survey included fields with a variety of rotation systems and found that crop history played a major factor in the presence of volunteer cotton in-field (See Figure 2). In fields where a volunteer population was detected, the vast majority (93 per cent) were grown in a back to back system, with the remainder following a summer fallow or grain rotation.

The survey found that the total number of back to back fields was lower in some regions than others, most likely a result of restricted water and smaller plantings this season.

“These conditions also meant the number of back to back cotton fields varied within regions – many larger farms were only growing cotton in fields that were previously rotated or fallow,” Ngaire said.

“However, the consistent message is that wherever back to back cotton was growing – so too were volunteers.”

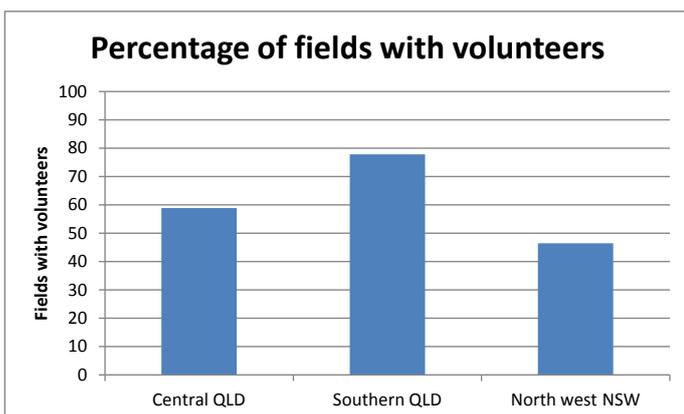


Figure 1: Distribution of fields with volunteers.

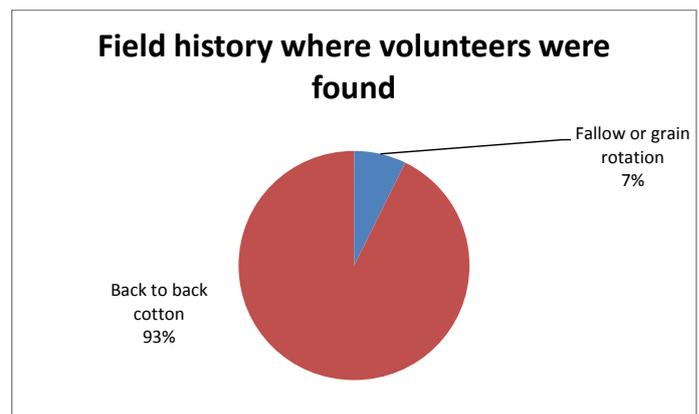
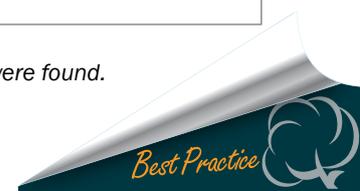


Figure 2: Field history where volunteers were found.



Control strategies

The survey also evaluated the success of various control strategies (see Figure 3).

Back to back fields with no volunteers present were shown to be the result of a combined control strategy – that is a pre-planting herbicide application and multiple inter-row cultivations.

Back to back fields with a low to moderate volunteer population generally used a singular control tactic – either a single inter-row cultivation or shielded spray application.

Fields with a high volunteer population were shown to be the result of either a single control tactic or where the grower had no specific management.

The take home message is simple – to achieve effective control, you need to implement multiple control tactics and keep at it throughout the season.

There is no silver bullet to controlling volunteers except for timeliness and persistence.

For more:

For more information on disease management, volunteer and ratoon control, contact:

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Or visit the CottonInfo website:

- Disease management page:
www.cottoninfo.com.au/disease-management.

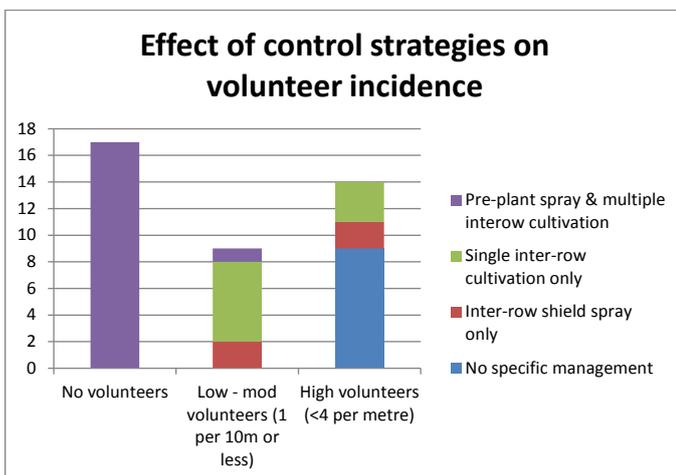


Figure 3: Effect of control strategies on volunteer incidence.