Cotton Australia's plan for phenoxy herbicide drift

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One of the biggest, yet largely avoidable, issues facing Australia's cotton growers continues to be damage to crops from 2,4–D phenoxy herbicide drift originating from neighbouring farms.

Last season (2008–09), 60 separate reports of phenoxy herbicide damage to cotton crops were made to Cotton Australia staff. Growers approved submission of 57 detailed reports to APVMA as adverse (pesticide) experience incidence reports.

Cotton Australia has confirmed that at least 10 farms received at least two phenoxy herbicide drift events and at least three farms had three or more drift events last season.

Cotton Australia's estimate of the extent of the damage is that some 15,910 hectares experienced phenoxy drift damage accounting for 10.6 per cent of the total area. This represents a farm gate loss of $9.14 million including 754 hectares of cotton that was ploughed out prior to harvest due to drift.

Damage caused by 2,4–D spray drift.

In the previous season (2007–08) Cotton Australia received 53 phenoxy herbicide damage reports accounting for approximately six per cent of the cotton area with damage valued at $5.08 million.

Increasing intensity

The most concerning aspect of the past two seasons has been the abandonment of cotton crops due to phenoxy herbicide damage indicating a worrying trend in the intensity of drift events. In 2007–08, approximately 320 hectares of cotton crops in the Border Rivers area of NSW and Queensland were abandoned prior to harvest due severe damage. The difficult decision to manage through to harvest or abandon severely damaged crops in the lower Namoi valley and Walgett areas resulted in 754 hectares of cotton being removed prior to picking last season.

The end of season cotton disease survey conducted by NSW DPI also recorded plants for incidence and severity of phenoxy herbicide damage and found 19.74 per cent of NSW crops with damage symptoms. The NSW DPI have also found a very strong relationship between the incidence of plants with damage symptoms and the severity of the damage.

Cotton growers are increasingly reporting uniform damage symptoms to all plants in the field indicating increasing severity of spray drift incidents. In the opinion of the researchers, this is likely to be from multiple drift events through the growing season or high dose inversion drift events that affect the whole field.

The Australian Pesticides and Veterinary Medicines Authority (APVMA) has been kept informed of the phenoxy drift issue which has increased at a time when 2,4–D is already under review. Cotton Australia understands that the APVMA has conducted extensive modelling on the spray drift potential of the Group I herbicides and will move to amend product labels with increased mandatory spray application directions in time (although not for this season).

Cotton Australia has been consistently advocating that mandatory neighbour notification of phenoxy spray application by users would go a long way to solving the drift problem for sensitive crop growers. But the APVMA and state government 'control of use' agencies (such as the NSW Department of Environment and Climate Change) have weighed the benefits to a limited number of sensi-

tive crop growers over the inconvenience of numerous phenoxy users in closely settled (non-cotton) regions and decided not to proceed with neighbour notification.

The inability of the pesticide regulatory authorities to deal with regional drift issues has been highlighted by the recent phenoxy application problems. Cotton Australia estimates that 74 per cent of all crops in the lower Namoi valley experienced some level of spray drift last season yet all regulatory responses will be targeted at all phenoxy users via the product label. Cotton Australia will continue to highlight this deficiency in the response capacity of regulators.

The Cotton Australia Drift Management Plan for 2009–10 season will be outlined on the web site at *www.cottonaustralia.com.au* and will include the following key strategies:

- Growers are encouraged to advise neighbours of the proximity of cotton crops including a reminder of cotton's sensitivity to 2,4–D. A pro forma letter is available for download on the Cotton Australia website or by contacting Cotton Australia.
- Sensitive crop mapping is again being actively pursued for areas that have had significant impacts over the past few seasons, with an online application enabling this to be extended to all growing areas (see *www.cottonmap.com.au*).
- Media campaigns including timely reminder press releases, placed print and radio awareness advertising at key times of the growing season especially following general rainfall events that lead to summer herbicide spraying.
- Spray application training through the CRDC/GRDC project supporting Bill Gordon to deliver training in best spray application management is available to any CGA.
- Liaise with a range of stakeholders (State and commodity producer peak bodies, regulators, chemical manufacturers and resellers) to try to ensure consistent messages about avoiding phenoxy spray drift by correct herbicide application practice.