

Name of research project:	Understanding and management of resistance to Group M, Group L and Group I herbicides
Research organisation(s):	University of Adelaide University of Queensland University of Western Australia NSW Department of Primary Industries Department of Agriculture & Food WA Queensland DEEDI
GRDC Project code:	UA00124
Key contacts:	Chris Preston Ph: 08 8303 7237 christopher.preston@adelaide.edu.au Stephen Powles Ph: 08 9380 7833 stephen.powles@uwa.edu.au Tony Cook Ph: 02 6763 1250 tony.cook@industry.nsw.gov.au David Thornby Ph: 07 4639 8811 david.thornby@deedi.qld.gov.au Sally Peltzer Ph: 08 9892 8504 sally.peltzer@agric.wa.gov.au
Project objectives:	<p>This project will develop better understanding of resistance to glyphosate, paraquat and Group I herbicides to better inform weed management. The project will develop a range of tools for farm advisors to improve their confidence in decision making with respect to reducing the risk of glyphosate, Group I and paraquat resistance. These will include risk assessments, case studies and scenario exploring tools. The project will investigate the potential for alternatives to these herbicides, concentrating on knockdown uses and Group I herbicides for Brassica weeds, which may prove useful in Australian agriculture and discuss with commercial providers the potential for registrations. The project will establish farm advisor learning groups to work on the application of the research in local areas where resistance is already a major problem and to improve adoption of research from this and other projects.</p> <p>The outcomes of the project will be primarily aimed at farm advisors, but will also be of benefit to grain growers and others in the industry.</p>
Project period:	July 2011 - June 2014
Project outcomes and status:	<ul style="list-style-type: none"> The factors driving resistance evolution and the inheritance of resistance for confirmed resistant weeds to Groups I, L and M will be determined, published in international journals, and used to develop improved preventive and management strategies.

	<ul style="list-style-type: none"> • Development of skills and confidence are vital in driving change. For farm advisors to convince farmers to change, then need confidence in the advice they are giving. This project will produce tools that allow farm advisors to gain confidence in predicting the outcomes of the advice they are giving to growers. The outcomes will be communicated through publications, field days, discussion with industry and GRDC Updates. • Being able to specifically identify risks and the potential costs of Group I and Group M resistance to a farm business provide incentives for farmers to make changes to management. This project will produce information and tools that will aid farmers and farm advisors to understand the potential financial and biological impacts of weed resistance and weed management decisions. These will be delivered through publications, scenario testing tools, GRDC updates and other avenues.
Links:	<p>www.dpi.qld.gov.au</p> <p>www.ahri.uwa.edu.au</p> <p>www.agric.wa.gov.au</p> <p>www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds</p>