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Improving weed control in stubble

Providing practical guidelines for growers to make decisions about rates, droplet size and nozzle type for optimum weed control in stubble, is the focus of a new project for the Hart Field Site Group (HFSG).

In southern Australia growers rely on pre-emergent herbicide chemistry to provide good control of annual ryegrass. However, it is well established that stubble interferes with herbicide coverage by acting as a physical barrier and potentially tying up some herbicides. This can decrease herbicide efficacy and result in poor weed control, such as photo 1 (right).

This problem has been intensified with advanced cropping systems now retaining more stubble at greater heights due to improved harvesters, seeders and inter-row sowing. It is now common to find retained stubble up to two years later.

The HFSG are leading this new project, funded by South Australian Grains Industry Trust (SAGIT), in collaboration with Dr Chris Preston and Dr Samuel Kleeman, University of Adelaide and Bill Gordon, Bill Gordon Consulting.

While it is well recognised that a limitation of stubble retention is reduced herbicide efficacy, the first stage of this project will aim to measure the impact of stubble volume and management on the efficacy of pre-emergent herbicides.

Despite the issue being known, there are currently no practical information or guidelines for growers to use to make decisions about herbicide management for optimum penetration and weed control.

The second part of the project will aim to improve the efficacy of pre-emergent herbicides by investigating rates, droplet size, nozzles and position of nozzles in a range of stubble treatments.

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