

Leading crop scientist warns against herbicide overuse

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Overuse of the herbicide glyphosate (Roundup) has caused US crops to become infested with glyphosate-resistant weeds - and a world-leading researcher at The University of Western Australia is fighting to prevent similar outcomes here.

Winthrop Professor Stephen Powles, who has just returned from a three-week US tour, said a widening epidemic of glyphosate-resistant weeds was causing increasing difficulties for US cotton, soybean and [corn growers](#).

Monster pigweed up to two metres tall was destroying yields in some US [cotton crops](#).

Professor Powles, who is Director of the UWA-based Australian Herbicide Resistance Initiative (AHRI), said the US problem had arisen because glyphosate overuse had caused weeds to evolve resistance to that herbicide.

"I want Australian farmers to be more aware of just how precious glyphosate is for our farms and to use it more carefully, along with other non-chemical tools," Professor Powles said.

"Our high export grain production helps feed the world but we need to treat glyphosate with respect to ensure this one-in-a-100-year chemical remains effective on our farms."

Professor Powles said the AHRI's multi-disciplinary focus ranged from research into how plants evolve weed resistance at a molecular level to on-farm management practices.

One applied AHRI project is the Harrington Seed Destructor, a mechanical device mounted behind a harvester to crush weed seeds and prevent them germinating.

"It shows how a non-chemical tool can help us to achieve sustainability," Professor Powles said.

Professor Powles is one of the world's most highly cited plant scientists (ISIhighlycited.com) and will address the US [National Academy of Sciences](#) Summit on herbicide resistance in Washington in May to present his findings on Australia's experience with [herbicide resistance](#).

His accolades include the 2003 Centenary Medal, and he was recently awarded the Grains Research Development Corporation Seed of Light Award for his research and communication with Australian grain growers.

Provided by University of Western Australia

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