

Matt and Helen Crane

Zero tolerance

Owners:	Matt & Helen Crane
Location:	Kondinin, Western Australia
Farm Size:	2250ha 100% crop
Annual average rainfall:	320mm
Soil types:	medium sandy loam
Crop program (2017):	wheat 900ha, barley 900ha, canola 500ha
Typical Rotation:	canola, wheat, barley

Making the most of every opportunity to capture weed seed at harvest is critical to Matt and Helen Crane's cropping enterprise in Kondinin, WA.



Matt and Lachlan Crane during harvest

Every single hectare on their farm has harvest weed seed control (HWSC) and has done for many years. The previous owners of the property towed a chaff cart for ten years. The farm has a low weed burden so for two years Matt narrow windrowed and burnt with the plan to move to a chaff cart.

However, the option to adopt an integrated Harrington Seed Destructor (iHSD) seemed a good choice and Matt has had that for two harvests now. Wanting to stay in front of weeds and ensure ryegrass levels remained low was a big incentive to continuing HWSC. It allows him to push a cereal on cereal rotation and to have assurance to sow earlier as paddocks are clean.



The integrated Harrington Seed Destructor

The iHSD had distinct advantages of not concentrating nutrients into windrows or chaff piles and also did not require what could be up to a month spent trying to get a good burn and weed kill especially following rainfall.

Not having to burn and being able to pull out of a paddock that doesn't require any preparation for the following crop has been a bonus. A few cameras have been fitted to the back of the machine to monitor the activity and prevent any issues from happening. Critical to the success of the iHSD, is the capture of weed seed into the header front. If weed seeds are not collected they return to the seedbank, whereas if they are collected they get destroyed in the iHSD mill.

To capture as much weed seed as possible, Matt prioritises the order of paddocks to be harvested with dirty paddocks being harvested first, however he does say it isn't always possible.

Harvesting height is as low as possible, with return height set at 10cm in cereals and a similar height in canola. It seems to be collecting as much weed seed as physically possible, but in thinner crops there is nothing to hold weed seeds up for the header front and they are getting knocked over.

A narrow knife guard and no-choke fingers are fitted to the front of the harvester to achieve a cleaner cut and reduce drag. Because the header speed is relatively steady at 7-8km/hr this potentially increases the number of weed seed captured.

Ideally, Matt would prefer to travel a little faster but, travelling at speeds faster than this in the past has meant that more weeds dragged. One significant benefit of the iHSD has been that everything that goes through the mill is destroyed.

Matt has noticed that there is less green in paddocks following summer rainfall compared to neighbours. While he still has to summer spray, he feels that there is less of a green bridge. A one pass tool for harvest weed seed management has enabled Matt to ensure that viable weed seeds captured by the header front are not returned to the seedbank.