



Barley Swathing, East Wubin - Case Study

Jenni Clausen, R&D Coordinator, Liebe Group

Aim

To evaluate the practicality of swathing barley in a favourable growing season.

Background

Swathing barley is practiced in the high rainfall zones of southern Western Australia. It allows for an earlier harvest and quick drying of the barley crop, minimising losses associated with uneven maturity, a wet harvest, lodging, and head loss. Swathing is another tool that is available to growers at harvest allowing them to play the back end of the season and minimise risk of yield losses due to environmental factors. Swathing can also be utilised as a weed management tool, slashing weeds before seed set.

Higher rainfall this year resulted in high biomass and yield potential in Scope barley at the Carter's property, east Wubin. This provided an ideal opportunity to try barley swathing and assess its fit in an area in which it is not common practice.

The Carter's used the same swathing set-up they use for canola. The crop was cut low (approximately 120mm) and windrowed at a 45° angle to the crop rows (Figure 3) in the first week of October. This was in order for the windrows to sit on top of the stubble enabling ease of pick up (third week of October). The amount of heads retained in the headlands (windrow sitting on the same direction as the stubble) was compared with the 45° angle swathing method.

Demonstration Details

Property	KL Carter and Co, east Wubin
Plot size & replication	Whole paddock, no replication
Soil type	Heavy red river flats
Soil pH (CaCl₂)	10-20cm: 5.5 20-30cm: 6.3
EC (dS/m)	10-20cm: 0.04 20-30cm: 0.17
Sowing date	23/03/2015
Seeding rate	40 kg/ha Scope
Paddock rotation	2012 wheat, 2013 barley, 2014 wheat
Fertiliser	23/03/2015: 50 kg/ha AgStar 19/06/2015: 37.5 L/ha Flexi-N 22/08/2015: 15 L/ha Flexi-N, 0.1 kg/ha Zinc
Herbicides, Insecticides & Fungicides	23/03/2015: 0.12 L/ha AuSuz, 0.1 L/ha Garlon, 0.51 L/ha Li700, 1.42 L/ha RoundUp Power Max. 22/08/2015: 0.2 L/ha Alpha-Duo, 0.2 L/ha Chlorpyrifos, 0.2 L/ha Tilt
Growing season rainfall	207.5mm

Comments

There were a lot of heads retained in the windrow running in the same direction as the crop. This was a result of the windrow sitting on the ground and not on top of the stubble; the barley that lay too low did not feed into the header well and therefore was not harvested effectively (remnants Figure 1). The 45° swathed barley, on the other hand, allowed for the majority of the cut barley to be collected (remnants Figure 2). One of the 45° windrows was harvested in the opposite direction to which it was cut; this resulted in a lot more heads missed on the ground as opposed to being harvested in the same direction the swathes were cut. The Carter's theorise that this was because the pick-up front was running over the heads before it could pick them up.



Figure 1: Leftover barley from harvested windrow that was swathed in same direction as crop rows (in headland), 2015.



Figure 2: Majority of straw remaining after harvest of windrows, 2015.



Figure 3: 45° angle of windrows against the direction of the crop rows, 2015.

If the Carter's were to try swathing barley again, they would modify the setup slightly to ensure that more barley could be picked up. This might be a modification on the feeder angle, making the windrows narrower, and a narrower tyne spacing at seeding. As this was unplanned at seeding, their standard 12 inch spacings were used. A maximum of 10 inch row spacing is recommended for swathing barley.

The Carter's found no advantage to swathing the barley this year, perhaps if it had been a wetter finish it may have been more beneficial as a preventative to the potential lodging. Swathing barley at the 45° angle negates tramlining, which is another consideration for anybody contemplating it on their property. Swathing did cost more in fuel use and labour. The Carter's estimate the extra cost to be around \$10/ha.

For more information on barley swathing in WA, visit DAFWA's Barley production – harvest and grain quality article at:

<https://www.agric.wa.gov.au/barley/barley-production-harvest-and-grain-quality?page=0%2C1>

Acknowledgements

Thank you to the Carter family for sharing the information.

Reviewed by: Kent Stone, Landmark Agronomist, Kojonup.

Contact

Jenni Clausen, Liebe Group
jen@liebegroup.org.au
(08) 9661 0570