

CASE STUDY

Mark and Hayley Wandel

Name: Mark and Hayley Wandel, "Ainsley Park"

Location: Scaddan, Lort River, and Beaumont

Area: 8100ha

Rotation: Legume, Wheat, Canola, Wheat, Barley



Mark and Hayley Wandel, of Ainsley park, first started using a chaff deck in 2006. Mark had already set up a fully repeatable controlled traffic system, so to him it was common sense. "It was just the principle of taking the weeds seeds off the most productive part of the country, and putting them on our least productive parts. Seeing as we were already handling the weed seeds, it made sense. And as everything is repeatable with controlled traffic, we know exactly where they are, and we can control them that way, and make them compete against each other as well."

For his chaff deck set up, Mark has a conveyor running at 90° to the direction of travel, which places the chaff in only 1 wheel track. A switch in the header cab controls which side of the machine the chaff is placed on. As his tramlines run mostly North-South, they arbitrarily decided to place the chaff on the west wheel track. The header operator simply flicks a switch on the headland, and they get it right 'most of the time.'

The logic for only putting the chaff in one wheel track was that Mark's CTF system is based on a 9m working width. This meant that if the weeds ended up germinating, he would only end up with 1 row of weeds every 9m, as opposed to 2, and give him a greater proportion of the crop that is not competing with weeds.

Although Mark has been using the chaff lining system since 2006, the means of achieving it has evolved over time. "We initially started with John Deere headers, and a chaff cart blower, then blowing it into a cyclone and putting it on one wheel track. We started with that for 4 or 5 years, then we bought New Holland CR headers and we built these decks that go on the back for them."

As for the chaff itself, Mark said that it breaks down once it gets wet, and that barley and canola stubbles attract and retain moisture better than wheat. As such the wheat chaff lines tend to be the weediest, although the influence of pre-emergent herbicide options through the rotation may influence this. As for the influence of summer rain, Mark said that after a wetter summer, the chaff lines tend to have less weeds in winter, as they have rotted down or germinated earlier. But, after a dry summer there tends to be more weeds coming up on the chaff lines during winter.

Despite having a highly concentrated band of chaff, Mark says the chaff doesn't provide a barrier at seeding. 'The seeding tine just flows straight through the chaff. Because there is no straw for it to grab and catch, it just flows around. Its fluffy and everything flows. It's not like straw that wraps and grabs and pulls.'





IMAGES: *The conveyor belt is continuous, and runs at 90° to the direction of travel.*

In his continuous cropping operation, Mark has zero tolerance for weeds. "We have to keep hammering them, but we are definitely getting on top." Whereas previously, he had been blowing areas out and cutting hay to get control of weeds, he has now not cut any hay for 10 years. But, he said, "We have to keep hammering the ryegrass, at every opportunity we get, to reduce the numbers."

For the majority of his farm, the main weed pressure comes from ryegrass. Wild radish is not really an issue, and brome grass has become less of an issue since his soil amelioration has begun to take effect. "We have had some brome grass on some sandy soil, but since we have clay spread and ameliorated that the issue has gone away and the herbicides are working brilliantly, and there aren't staggered germinations like we used to get. So that has fixed the problem, by fixing the soil up."

As far as plans for the future, Mark says that he is quite happy to stick with the deck for the time being, as it is simple and cheap. However, he was interested in having an integrated mill. "In our current system, we are still exposing the weeds to chemicals, so it would be good to have a mechanical tool in the system. We might get to the stage where we really want to get down and have a mechanical control tool, so instead of cultivation it's probably the best mechanical weed control we have got there at the moment."

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