# GRDC PODCAST TRANSCRIPT

**Measuring and preventing harvest losses in the western region**

[00:00:05] **Intro** This is a GRDC podcast.

[00:00:12] **Sally Maguire** Data recently collected as part of the GRDC investment "Measuring Harvest Losses in the western region," has helped to identify opportunities for growers to reclaim grain that is lost during harvest. A report published on the back of this investment shows that more than $320 million dollars’ worth of grain was lost in Western Australia during the 2022/23 harvest. Hello, I'm Sally Maguire. Harvest losses represent a direct loss of income for grain growers, so quantifying these losses and identifying where they occur is the first step growers can take before then considering what changes and modifications to make to their harvest set up. I spoke to Daniel Kidd from the Grower Group Alliance, which coordinated the Harvest Loss Project, and later I'm joined by Ben White from the Kondinin Group, who has advice for growers on avoiding harvest losses. First up, Daniel, tell us about the history of this investment.

[00:01:12] **Daniel Kidd - Grower Group Alliance** This is the second year GRDC have invested in this project led by grower group Alliance. So we broke up the project and brought in a number of grower groups over the last couple of years to measure harvest losses in WA and using the grower groups is a really good way to involve growers and their members and get them involved in the project, so we did it last year with a number of groups and we've done it again this year with another four groups and we've looked at over 65 sites this year, eight different crops, and tried to quantify losses from different types of harvesters from different fronts and we pulled in expertise from Ben White, who's very experienced with harvesters, and he's really helped our grower groups to develop the skills to make these measurements and collect the data. And like you said, there is a report out, the projects just finished, we've got that report available on our website and on GRDC's website so people can find out more information about that.

[00:02:05] **Sally Maguire** We are speaking to Ben White as well, but what's the essence of the report, I suppose, after the two-year investment?

[00:02:11] **Daniel Kidd - Grower Group Alliance** It was quite interesting. Over the two years there was over $620 million of estimated grain losses across those eight crops species I mentioned, so that’s cereals, canola and grain legumes and we found that grain legumes actually there's probably the greatest losses from, which probably doesn't help with their profitability very much, particularly for lupins I think was one of the highest, so that was pretty interesting. But Ben's really delved into the data and come up with some other findings, including where the losses are occurring, which kind of fronts are a bit more susceptible to losses.

[00:02:46] **Sally Maguire** And Ben White from the Kondinin Group joins me now. Ben, let's delve a bit more into the numbers on harvest losses and just what can growers do to lower them?

[00:02:56] **Ben White - Kondinin Group** Well, Sally it probably tell us that it's probably tells us that we're throwing a bit too much grain out of the harvester or not getting it in the front in the first place during harvest. And it probably reinforces the data was collected in 2021. The numbers are higher in terms of losses than what we would consider acceptable. And in a dollar sense that translates to just under $85,000 for every grower in WA. So, when I say every grower, I mean an average grower looking at the average profile. So obviously depending on scale, that's a significant amount of money. So, if we look at specific crops, then, you know, for example, we've done not a bad job with wheat, we've got machine losses of 0.9 per cent, which is acceptable. But for higher value crops like canola, one point two per cent losses through the machine, but 2.1 per cent off the front and that tells us that, you know, total losses there of say three point three per cent that translates to a lot of money and we can do a bit about that, we can try and minimise those losses and we've got opportunity I guess, we were never going to get rid of all the losses, that's just a function of harvest. But if we can minimise that and I actually think that, you know, we should be able to halve those pretty easily, the pulses continue to be a problem area, things like lupins, field peas, chickpeas, you know, we're kind of talking well above five per cent front losses, in some cases you know, for lupins it's over 10 per cent, so there's a lot we can do at the front to try and minimise losses there. And it's one thing to say, oh well, sheep will come in and feed on it and clean it up, but the reality is that it's much better to harvest it and give it to the sheep when you want to give it to them and not have it lying on the ground and potentially providing a fair bit of food for mice and other vermin, so trying to get that job done as well as we can, is really the opportunity here.

[00:04:26] **Sally Maguire** So we're talking about two consecutive harvest years of unacceptable levels of harvest losses. So, where's it all going wrong?

[00:04:34] **Ben White - Kondinin Group** Well, I think we've been surprised, actually, looking at the numbers, just the levels of front losses. In some cases, they have exceeded the machine losses. We focused pretty heavily on the machine losses. We've worked hard to try and reduce those and encourage people to use drop trays behind the harvester. In most cases we sort of had a bit of a scratch on the ground and looked for front losses and unfortunately that's not good enough. It tells us that the losses that we're experiencing off the front can be quite high and the fix for that I suppose, is maybe looking at some adaptations for fronts. Maybe a new front selection in some cases, could be quite easily made for a Vario style front as opposed to using a Draper, if those losses continue to be high off a Draper front so, it's probably a case of doing the numbers, looking at the area grown and actually working out the economics of what odd adaptations or machine selections you might make going forward to minimise some of those losses.

[00:05:23] **Sally Maguire** What is your best advice going to be for growers going into the next harvest? What should they be doing?

[00:05:29] **Ben White - Kondinin Group** Look, I think for something like canola, as I say, you do the numbers on a Vario style front. Can you go in shares with a neighbour for example? I know a few growers in WA that have done that. The absolute basics still for front losses need to be followed you know, make sure that the knives in good condition, make sure you’re not burying the reel into the crop. These are all the things we go through at the harvest workshops that we've been running in WA and across the country. And there's some really good practical tips for people that we work through each particular crop. And of course, each region's going to have different challenges, but the basics of the front set up absolutely essential. And then of course when we look at machine losses, just the fact that we're going to be dropping trays holds us in good stead. The numbers suggest that those that are using drop trays have significantly lower losses. And in a lot of cases, you know, the cost of the trays themselves within a paddock of harvest. So only about four in ten growers in WA have drop trays. That's actually not too bad, I thought it'd be lower than that. I suspected that that's probably higher than, say, the rest of the country.

[00:06:27] **Sally Maguire** Is it a matter of balancing out harvest losses with the money that you might have to spend to optimise your harvester set up? And is that where the big decisions might need some more consideration?

[00:06:39] **Ben White - Kondinin Group** Well, I think there's probably three primary things at play here. Absolutely. The cost of modifications and or new equipment and or changing equipment against the losses that you likely to occur or the losses that have been incurred, projecting those forward to future production figures. I think the other thing is we've got to remember that we're here to do a job and we want to get it done as quickly as possible and harvest risk, outstanding crop risk is still a big issue, so we've got to balance losses against the cost of harvest and harvester, if ask any of the consultants in WA, they'll tell you, you know, the running costs of a harvester with chaser bin and all the staffing that goes with it is around $750 an hour, a rotor hour, and that's huge. So, we really have to find that sweet spot between productivity and losses. So, as I say, we'll never minimise losses to zero, but we can reduce them significantly. But of course, that's got to be balanced off with the fact that we are there to do the job, were there to get the harvest done and we do need that productivity, we need tonnes in the bin at an acceptable rate as well. It's going to depend on the gear you've got obviously, but that balance needs to be struck.

[00:07:36] **Sally Maguire** So as you say, you're never going to reduce it to zero. So ideally, what rates would we like to be seeing in the coming harvest that growers could get it too.

[00:07:44] **Ben White - Kondinin Group** If you run off benchmarks that have been set by the likes of PAMI, the Society of Agricultural and Biological Engineers, and Kondinin Group numbers. You know, we're looking at the benchmark should be less than one per cent yield loss in cereals and canola, sort of between two to three per cent depending on the conditions, so it's one of those things that there's got to be a balance between the two, as I said. But in some circumstances those numbers might be different. But we really need to make sure that we've got our head around the actual losses, so actually doing the measurements is really important.

[00:08:11] **Sally Maguire** Is there something specific happening over in WA or does this scenario apply nationally?

[00:08:17] **Ben White - Kondinin Group** Well, that's a really good question, Sally. I think what we need to do is actually have a look at the other states and just see whether these numbers are replicated there. My suspicion is that they might even be a little bit high given the drop tray uptake here is relatively high. But look, that's a question we need answered. Looking at things like mouse pressure is an indication of harvest losses. And I think the mice plagues that we've been having on the east coast suggest that some of those losses might be higher as well. But look, that's all got to be validated and there's some more work to be done there to just look into that in a bit more detail.

[00:08:46] **Sally Maguire** And so just to summarise, millions of dollars in harvest losses, but there are things that growers can be and should be doing.

[00:08:53] **Ben White - Kondinin Group** Well, look, I think that there's an opportunity here. That's why we've got to look at this. We've got an opportunity to reclaim part of that, in WA alone, it tallies to about $320 million worth the grain on the ground, we're leaving in the paddock. If we can recoup some of that, that's of huge benefit and I think it's easily done. It just means that we need to take some measurements, we need to calibrate our machines and set our machines up properly, and so these are all things that don't necessarily cost anything. It's just a matter of a little bit of time taken at harvest to do it properly and the opportunity is there for us to recoup a fraction of that $320 million worth of grain that we're leaving on the ground in the paddock.

[00:09:35] **Sally Maguire** That was Ben White from the Kondinin Group and earlier I spoke to Daniel Kidd from the Grower Group Alliance. What we heard was that in many cases harvest losses can be avoided with better operator knowledge, harvester set up and regular measurements. GRDC harvest set up workshops will commence in September, and for further details, head to the events page on the GRDC website. grdc.com.au/events. I'm Sally Maguire. This is a GRDC podcast. Thanks for listening.