

Harvest Losses

Hosts: Various farmers throughout SCF membership area.

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KEY MESSAGES:

- Across the board losses were generally low.
- Front losses were a lot more variable and had a wide range of contributing factors.
- There is greater improvement to be made in front losses.
- Machine losses could be rectified easily within the paddock, whereas front losses could not.
- There appears to be a level at which losses cannot be improved, and as a result, the percentage of yield lost on low yielding crops is higher.
- Environmental factors play a much greater role in harvest losses than growers often factor in.

Background

Stirlings to Coast Farmers took part in a GGA-led, GRDC investment that aimed to determine the current level of grain losses through the harvest process, including front and machine losses. This project was rolled out across the state and utilised the Bushel Plus system to ascertain the level of losses, with a focus on reducing losses in field. The project was developed after a study by Planfarm found that 90 million dollars' worth of canola is lost in the harvest process each year in Western Australia.

Methodology

Across the five port zones 200 paddocks/machines were measured across a range of crop types to form a rigorous data set. Of the 200, 39 were captured within the Albany Port Zone (APZ) over the 2021 and 2022 harvests. Losses were measured on all common crop types, machines and fronts, across a range of yields. Losses were recorded using the Bushel Plus system and app, with growers able to make adjustments.

In 2022/23, SCF measured 12 participating crops that covered cereals, pulses, and oilseeds, all of varying yields and varieties. The academic consensus on acceptable harvest losses varies widely, however, 3% machine losses for cereals, and 1% for canola are widely accepted, with losses on pulses ranging from 5-20% depending on variety.

Results and Discussion

Harvest losses measured in 2021 in the APZ were within optimum range, and losses measured in 2022 were even lower again. However, this was more likely due to the higher yields (diluting the issue) rather than improved set-up. Compared to the rest of the state, the APZ losses were highly variable.

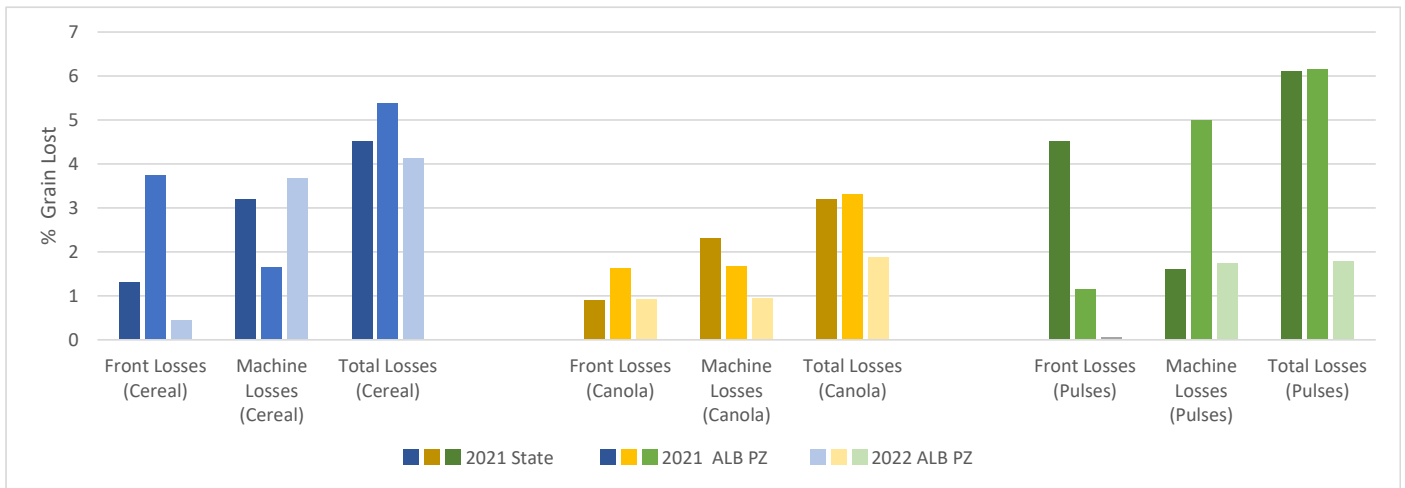


Figure 1. Average cereal, canola and pulse loss % attributed to front, machine and total for 2021 & 2022.

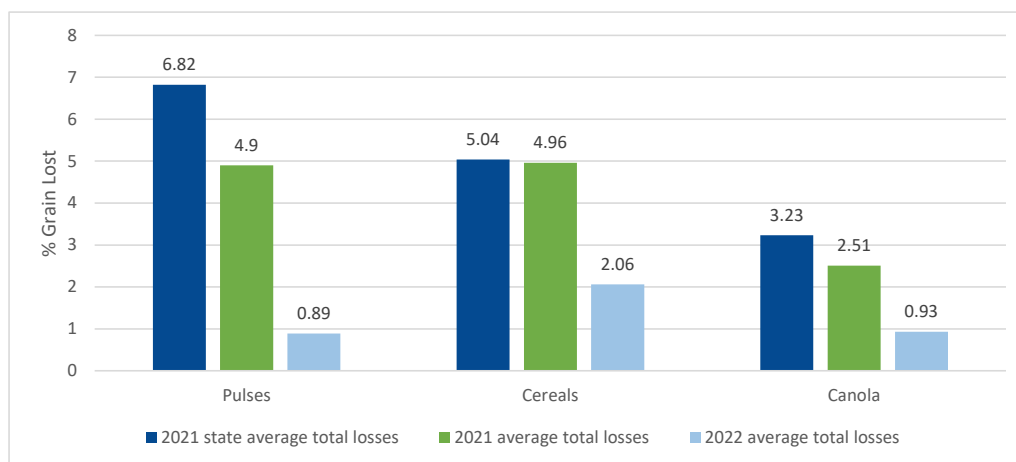


Figure 2. Average cereal, canola and pulse total loss % for the state and AP2 (2021) and APR (2022).

Conclusion

Although there appears to be continuing improvement, we can assume optimum seasonal conditions and high yields in 2022 played a role in this, essentially diluting the amount of grain lost. However, through ongoing extension and engagement with growers about the importance of measuring and minimising harvest losses, there is still scope for improvement within the Great Southern area. The Bushels plus system can be borrowed from SCF by members for future harvests.

Acknowledgments

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