

August , 2021  
**NATIONAL**

## Grain storage success starts in winter

A wet start to the winter cropping season and crop production forecasts of 46.8 million tonnes – 13 per cent above the 10-year-average – have given many grain growers the confidence to start looking ahead at harvest logistics and grain storage capacity for this year.

While growers are keenly aware the latest figures from the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) are merely a forecast until grain is in the silo, storage specialists say now is the time to ensure facilities are prepared and ready.

Grains Research and Development Corporation (GRDC) Grain Storage Extension project co-ordinator Chris Warrick is encouraging growers to start maintenance and do a check on storage facilities to help set up for a successful 2021 harvest.

Mr Warrick said growers were increasingly opting for on-farm storage and were focused on improved capacity, understanding what was needed to store grain for longer periods of time and building their knowledge of fumigant and chemical use.

“Managing on-farm grain storage is now an enterprise in itself, requiring planning and preparation to manage successfully,” Mr Warrick said.

“The GRDC Grain Storage team regularly receive calls from growers either looking for guidance on setting up storage, including pest prevention, or looking for help after they’ve discovered a pest or grain quality problem.”

To reduce the risk of issues during and post-harvest the storage expert is advising growers to make time now to assess and undertake maintenance of grain storage systems.

“Preventing issues is always better than dealing with them,” Mr Warrick said.

He advises growers work through six steps to prepare for what is forecast to be an above-average winter harvest:

1. Aeration cooling is under-utilised in many regions, possibly due to a lack of understanding. Aeration cooling can be ordered for new silos or retro-fitted to existing silos and is an effective way of preventing insects and mould, maintaining superior grain quality and providing storage to hold high-moisture grain safely until it can be blended or dried.
2. When choosing aeration fans, aim for two to four litres of air per second per tonne of grain storage capacity. One fan cannot adequately be ducted to multiple silos or effectively moved between silos. The most efficient solution is to have dedicated fan(s) installed directly on the bottom of each silo.

3. Existing aeration can also be setup for better utilisation, by connecting permanent power supplies to fans, installing an automatic controller or learning when to run fans to optimise aeration cooling. While extension cords to silos may have been used in the past, data shows that once aeration is setup properly it's easier to operate and gets utilised to its full potential.
4. Use the downtime in winter to maintain storages in the same way you maintain other harvest equipment. Check all hatches and outlets operate freely, replace any damaged or perished seals, pressure test gas-tight sealable silos and top up oil relief valves. Consider safety improvements, such as adding signage, lights and drainage or engineering safer ladders or walkways to access the top for inspection, maintenance and fumigation.
5. Storage hygiene is critical. During maintenance make silos and their surrounds easier to clean by covering pockets or ledges where grain accumulates. Make hoppers, conveyors and augers easy and safe to clean out. Adding concrete or gravel around storages will make cleaning up spills faster and more effective. All these steps will reduce the risk of contamination and limit breeding grounds for insects. Removing or reducing food sources for insects, also reduces their population, which is important as conditions warm up and insects begin breeding.
6. The final step to winter storage preparation is structural treatments. Apply a small film of Diatomaceous earth dust or slurry to the inside of storages and grain handling equipment to ensure any remaining insects are killed.

Mr Warrick said if growers work through these steps, they could be assured that their grain storage systems were clean of insects and functional, safe and easy-to-operate, which would contribute to a more successful harvest.

He said learnings from the 2020/21 harvest also indicated that temporary on-farm storage such as poorly prepared bags and bunkers could be vulnerable to mice and water damage. Losses associated with damaged or flooded grain in short-term storage meant these were not always the cheaper option and had resulted in more growers investing in permanent storage for this season.

For more information contact your nearest grain storage specialist on 1800 WEEVIL or visit [GRDC's Stored Grain information hub](#).

Mr Warrick has also provided growers with straightforward, practical advice on what they can do to improve their storage via a GRDC webinar that is available through [GRDC's YouTube channel](#).

## Contact Details

Chris Warrick,  
[info@storedgrain.com.au](mailto:info@storedgrain.com.au)  
1800 WEEVIL or 0427 247 476

### Contact

Toni Somes, GRDC  
[Toni.somes@grdc.com.au](mailto:Toni.somes@grdc.com.au)  
0436 622 645

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**CAPTION: GRDC Grain Storage specialist Chris Warrick is encouraging growers to take time over winter to setup grain storage by adding or improving aeration cooling, doing maintenance, improving hygiene and finish off with a structural treatment.**

GRDC Project Code: PRB2011-001SAX

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