

These notes have been provided to Women in Farming Members from WorkSafe Inspector, Julii Gaunt. Julii can be contacted on 0429010402 or by email [julii.gaunt@dmirs.wa.gov.au](mailto:julii.gaunt@dmirs.wa.gov.au)

## 1. SILOS AND FIELD BINS

Most silos and field bins require fall protection as they may involve a risk of falling from heights.

### 1.1. HIGH RISK ACTIVITIES

For example, there may be a high risk of falling when:

- accessing or securing the top hatch;
- inspection of the level of storage through the top hatch;
- fumigating;
- sampling during or after filling;
- roof maintenance and cleaning; and
- temperature measurement.

### 1.2. CONTROL MEASURES

First, try doing the task from the ground by:

- blowing product into the silo through permanent filler tubes;
- installing fill indicators such as clear sight glasses at regular intervals up the side of the silo or field bin;
- installing a lid opening/closing device that can be operated from the ground;
- using a remote system for grain level assessment such as mechanical fill indicator visible from the ground, hand held sensor or weight indicator;
- fitting a fumigation system so that fumigant is delivered into the silo from ground level – the ground opening device should be compatible with the fumigation system to ensure a seal;
- fitting a ground level access hatch to allow cleaning; and
- using an extension pole to clean the inside without the need to enter the silo.

When these risk controls do not remove the need for a person to climb up a silo, consider:

- installing fixed stairs, ramps, work platforms or ladders complying with Australian Standard, AS 1657 Fixed platforms, walkways, stairways and ladders – design, construction and installation;
- using an elevated work platform such as a cherry picker; or
- using a fall injury prevention system, such as a restraint system, fall arrest system, catch platforms, scaffolding (barrier or guardrails), safety nets or safety mesh.

A fall arrest system that is intended to arrest a fall from a height must not be used on a silo installation if a person could free fall less than six metres. This is because the length of a lanyard plus the length of deployment of the shock absorber plus the average height of a person comes to 5.4 metres, meaning that falls of less than six metres will result in the person striking the ground.

Caged rung ladders with angles exceeding 75 degrees to the horizontal should be fitted with a permanent or temporary fall arrest system. Persons using this fall arrest system need to use a system that consists of a locking device connected to a 300mm lanyard and harness with attachment to a drop-line, limiting the ability to free fall to a maximum of 600mm. As an alternative, there are also fall restraint systems that prevent falling by attaching a fitting on the front 'D' ring of the harness to the wire rope installed in the middle of the ladder or to one side and, if somebody slips, it locks off immediately and there is no fall.

A fall arrest system that consists of a 1.8 metre lanyard with a shock absorber must not be used on caged rung ladders as it is unsafe. As outlined above, it allows a fall of at least 5.4 metres before the fall is arrested, which in many cases would mean a person could hit the ground before the equipment activates fall arrest.

A temporary or permanent fall arrest system should not be used if it does not comply with the controls specified above.

### 1.3. OTHER SAFETY ISSUES TO BE CONSIDERED

- controlling unauthorised access to silos and bin. For example, install a cover to an access ladder, and lock hatches where possible;
- recognising that silos and bins are potential confined spaces. Prior to any entry, all regulations and guidelines concerning confined spaces must be considered and followed – see Appendix 2 and regulations 3.82 to 3.87 of the OSH Regulations;
- providing all workers with adequate information, instruction, training and supervision in the use of controls to prevent falls, which is a requirement under the OSH Act;
- removing all debris and surplus materials under the access area and ensuring augers and other machinery are guarded – see the Commission's Code of practice: Safeguarding of machinery and plant;
- ensuring there is an effective structural design to help prevent silo collapse and falls. Safety issues associated with structural design include load densities, wind forces, uneven foundations, overloading, corrosion and water accumulation; and
- ensuring any silo or bin modifications are undertaken by a competent person and only after guidance is sought from the supplier/manufacture. A competent person means, according to the OSH Regulations, a person who has acquired through training, qualification or experience (or a combination of those things), the knowledge and skills required to do that the task competently.

More information about falls can be found here:

<https://www.commerce.wa.gov.au/publications/code-practice-managing-risk-falls-workplaces>

## 2. GUARDING OF AUGER ENDS

The auger or screw flighting must be effectively guarded. This requires two levels of guarding: an inner guard that is permanently fitted over the flighting, and a fitted outer guard.

### 2.1. INNER GUARD

The inner guard must be an integral part of the screw-bearing assembly to enable bearing maintenance. It must be permanently fixed to the grain auger as close as practicable to the flighting. As a minimum, it must comprise

longitudinal bars at a maximum of 75 mm spacing and be of sufficient strength to prevent deformation – eg 10 mm diameter steel. The bearing end of the grain auger must not have apertures greater than 75 mm.



## 2.2. OUTER GUARD

Outer guard: The outer guard must comprise mesh with a maximum of 100 x 100 mm apertures. It must not be flush with the inner guard. Instead, there should be at least 120 mm between it and the inner guard. It must be secured in position. Where a grain auger is operated without a hopper, the outer guard (apart from its ends) should be cylindrical (or part cylindrical if the flighting is partly enclosed by the shell of the grain auger) and fit directly over the inner guard while maintaining 120 mm minimum clearance over the inner guard. The outer guard must be fitted at the time of supply.

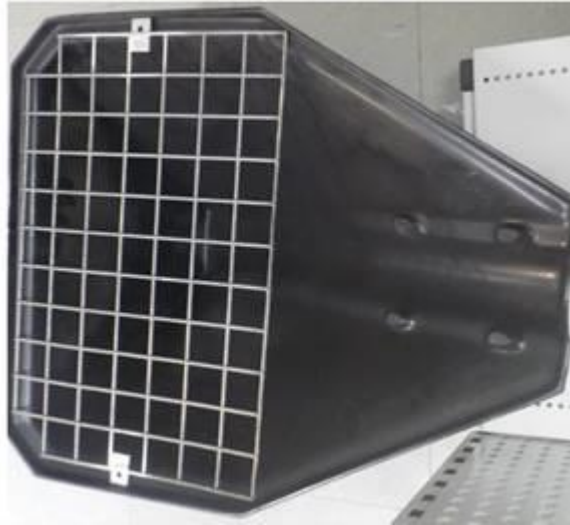
- Where a grain auger is operated with a hopper, the outer guard may be designed to fit on the face of the hopper while maintaining at least 120 mm clearance over the inner guard. Note: If the grain auger is intended to operate both with and without a hopper, the design should incorporate both types of outer guards.
- The mesh hasn't always been provided with the hopper at the time of sale.

Farmers will tell me that grain bogs up in the hopper if its top guarded, but that is unlikely if using the appropriate way to load the hopper, and running the auger at the appropriate speed.

Hopper guarding should be no less than 60mm apertures, and the mesh should be strong enough that if you leant on the centre of it, it wouldn't flex.

It should be attached to the top of the hopper with something that requires a tool to remove it; screws, catches or fastenings which prevent it falling off.

It is practicable that the PCBU will ensure guards are adequate to prevent persons in the vicinity of operating plant from coming into contact with dangerous parts, and that these guards remain in place while the item of plant is connected to a power source.



### 2.3. CONFINED SPACE

A 'confined space' means an enclosed or partially enclosed space that:

- is not designed or intended to be occupied by a person
- is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space
- is or is likely to be a risk to health and safety from: – an atmosphere that does not have a safe oxygen level, or – contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or – harmful concentrations of any airborne contaminants, or – engulfment.

A confined space is determined by the hazards associated with a set of specific circumstances and not just because work is performed in a small space. Entry into a confined space means a person's head or upper body is in the confined space or within the boundary of the confined space. Confined spaces are commonly found in vats, tanks, pits, pipes, ducts, flues, chimneys, silos, containers, pressure vessels, underground sewers, wet or dry wells, shafts, trenches, tunnels or other similar enclosed or partially enclosed structures, when these examples meet the definition of a confined space in the WHS Regulations.

Workers entering Confined Spaces are to be appropriately trained, and systems are required to be documented.

Information in relation to Confined Space can be found here:

<https://www.commerce.wa.gov.au/publications/code-practice-confined-spaces>

### 3. TRAFFIC MANAGEMENT

Traffic Management- ensure that traffic has been controlled to reduce the risk to those persons on site. The use of traffic cones, High Vis tape, speed signs, directional information etc. assists workers and contractors in preventing collision or run-over

### 4. PTO GUARDING

PTO Guarding- Make sure that guarding is sufficient on those stationary tractors connected to field bins.

## Tractor Power Output Coupling

Unguarded



Insufficiently guarded



### 5. FATIGUE

Manage hydration, nutrition, sleep, rest and stress. Grain harvesting time can mean some long days, but it is important to ensure that you are not allowing workers to do back-to back 18 hour days.

### 6. COMMUNICATION

It is essential that communication is maintained with all workers, contractors and visitors to the farm. This may involve a number of types of communication such as radios, TXT, mobile calls and apps. If someone is on site, communication must be maintained until they leave. It is your responsibility to know who is onsite.

### 7. WORKING ALONE

Any worker, contractor or visitor who is working alone must have communication maintained, and a plan must be in place for the activity they are undertaking, provision for emergencies, and access assessed as to how they will travel (such as reduce the risk by providing a safer vehicle such as a ute over a quad bike).

### 8. CONTRACTORS

All contractors should be inducted. I have attached a template, but you can add to it, or use any other document which provides similar information.

### 9. FIRE

Ensure that your fire management plans are up to date, and that workers are trained and contractors are informed of alternative exit routes from the farm in the event of a fire. Remember that plant and machinery can be replaced, but lives cannot.

## 10. FUELING

Fueling hot vehicles presents some risks. Diesel plant and vehicles are a lesser risk than plant running on unleaded. Keep extinguishers handy.

## 11. CBH

There are many new grid operators onsite. They have safe places to stand which are designed to be visible to the truck drivers. If you can't see your grid operator in their safe space, do not proceed with raising the truck or dumping the grain. Report any unsafe behaviour to CBH immediately.

## 12. PARK BRAKES

Ensure that the risk of roll away by trucks is prevented by using park brakes.

## 13. MAINTENANCE

Keep checks in place to ensure that maintenance for plant being used during harvest is maintained as the manufacturer intended.

## 14. ATTACHMENTS

### 14.1. INDUCTION OF WORKERS AND CONTRACTOR INDUCTION





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<b>new workers safety induction checklist</b>			
Name:			
Position:			
Date of commencement:			
Location:			
Name of person providing the induction:			

Check	yes	no	n/a
Explain work tasks			
Tour of sections			
Explain			
• OSH policy			
• Duty of care employer and employees			
• Consultation: OSH committee and SH Reps			
• Safe work procedures and instructions			
• Issue resolution procedure			
• Hazard reporting procedure			
• Injury/incident reporting procedure			
• Injury management policy and guidelines			
• Emergency procedures			
• Manual handling procedures			
• Hazardous substances procedures			
• Machinery safety procedures			
• Working from height procedures			
• Slips and trips prevention			
• Electrical safety			
• Permit to work			
• The use storage and maintenance of personal protective equipment and clothing			
• Vehicle safety			
• Safety procedures for working on the side of the road			
• Procedures for good housekeeping			
• Safety signage			
• Procedures for working outside such as skin protection			
• Smoke free workplace			
• Alcohol and other drugs at the workplace			
• Compensation claims process and rehabilitation			
Provide locker, personal protective equipment, tools as required			
Schedule of follow-up training			
Supervision to ensure that workers are following safety instructions			

Name of manager/supervisor:		signed:		date:	
Name of new employee:		signed:		date:	



Government of **Western Australia**  
 Department of **Commerce**

## Contractors and transient workers

### safety checklist

Check	yes	no	n/a
<b>Planning and contract management</b>			
Does the safety and health policy include contractors' responsibilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is safety and health a key criterion in the selection of contractors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are steps taken to ensure contractors are competent in safety and health?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are discussions held with contractors and the job to be undertaken agreed upon before work starts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have your requirements and the contractors' responsibilities for health and safety been set out in writing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are contractors made aware of your safe work procedures in advance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are contractors requested to provide safe work method statements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do contractors sign in and out and is it always known where they are?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are contractors given site information before starting the job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you check on contractors' arrangements for supervision of their workers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the contractor sends different staff, are you notified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you request contractors report all incidents/accidents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Risk assessments</b>			
Are risk assessments for contracted work conducted with contractors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you go through a contracted job before allowing work to start?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you check on progress with a contracted job and that the contractors are working safely?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you keep the whole workforce informed on safety and health issues?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you take appropriate action if contractors are not working safely?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When a job is finished, do you review how it went, including the safety and health performance of the contractor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Other sources of information

WorkSafe [www.worksafe.wa.gov.au](http://www.worksafe.wa.gov.au)

#### Legislation

- The Occupational Safety and Health Regulations 1996

#### Bulletins

- Agents providing workers – Labour hire
- Labour hire industry and duty of care

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