

Work environment – Rural safety

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Silos >

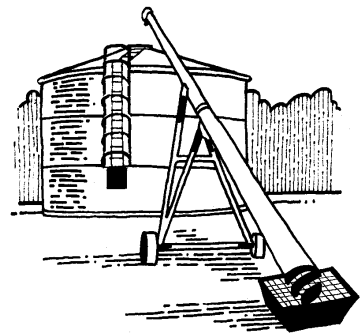
This bulletin outlines some simple safety guidelines for those working in the rural industry and is one of a series on Rural Industry safety.

Locate silos safely

- Locate silos clear of houses, overhead power lines, animals, children and water holes.

Avoid dangerous atmospheres

- The atmosphere in confined spaces on farms such as in silos can be dangerous.
- The atmosphere in a silo when dusty (eg, one being filled) may be explosive particularly if the humidity is low. Do not smoke.
- High temperatures in silos can also result in heat stress for people entering them. Do the job from outside if possible.
- Wear respiratory equipment when appropriate.

**Safe fumigation**

- Ventilate the space. Read the instructions on the fumigant container to find the venting period required before entering the silo.
- Always follow the manufacturer's instructions.
- Open phosphine containers in the open air, not in the shed or silo.
- Hold container away from face and stand upwind.
- Wear protective clothing and equipment.
- Have a person stand by while fumigating.
- Place tablets in the silo using a tube from the roof.
- Clearly mark all areas under fumigation with 'DANGER UNDER FUMIGATION' signs.

Avoid suffocation by grain

- Don't enter a silo unless you have to.
- If you enter a silo, have somebody stand by in case of difficulties
- NEVER enter a silo before turning off the auger and ensuring that no-one can start filling or emptying augers while someone is inside.

putting safety first >



- Stay on the ladder above the level of compacted or bridged grain while dislodging it.
- Ensure external ladders start above child height.

Check machinery

- Guard auger drive train (belts, pulleys, drive shafts) and the rotating screw flighting.
- Locate mobile augers on firm, preferably flat ground, and operate at shallow (less than 45°) angles to prevent them overbalancing.
- Lower mobile augers when transporting.
- Never start augers hidden from your view before checking the area is clear of people.

Use electricity safely

- Use only qualified trades people to do electrical work.
- Maintain protective covers and installation.
- Switch off power before working on equipment.
- Protect auger motors and switchgear from rain.
- Avoid overhead powerlines when using long mobile augers.

Avoid structural failures

- Every stored material has different characteristics - a silo designed to store one product may not be suitable for another. Care must be exercised whenever a new product is stored in a silo.
- Follow manufacturer's instructions precisely for preparation of the concrete pad.
- Use the 'bedding-in' procedure when filling by drawing off a rubbish bin full of grain. Keep people well clear whenever filling or emptying, especially children.
- Seemingly simple change to a silo can drastically alter its structural stability. An engineer should be consulted before modifying a silo. Equipment which is attached to a silo can impose dangerous loads.

Avoid falls

- Provide protection in the form of a simple roof platform together with ladder cages where required.
- Provide a wire mesh guard which is hinged permanently on all external openings above the maximum level of grain.
- Use a safety harness.

Know safety procedures

- If trapped by grain, don't panic - the grain will pack tighter. Shield your face and chest with arms and clothing to create space for breathing.
- Plan your escape. Always have a person watch from the outside. The watcher should have clear instructions about what to do in an emergency. The first instruction is 'Do not follow me in'.

- If only one person is on standby and cannot pull you out without entering, help must be called. Then someone may enter wearing a breathing apparatus and a lifeline, and one or more people outside can help to pull you out.
- If someone else is trapped in a grain silo, empty the bin by opening any side outlet, then cut flaps in the cone or walls all around the base using power tools.

SILOS can be dangerous. Follow safe work practices and ensure the health and safety of yourself and others.

Do you:

- take precautions against dangerous atmospheres within the silo?
- use protective equipment such as safety harnesses?
- make sure that no-one can enter the silo and be suffocated?
- service all machinery regularly and maintain it in good working order?
- Check whether the silo is structurally able to store different products before you fill it

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