

Working at Height in Agriculture

Information Sheet September 2016



Are you competent to do “Work at Height”, is it worth the risk?

Have you ever been tempted to climb onto a roof to fix a leak, replace a sheet of galvanise sheeting or clean and paint a shed roof? The Health and Safety Authority (HSA) is concerned at the significant rise in the number of tragic deaths and serious injuries resulting from such work, particularly involving fragile roofing materials.

In the last 5 year period (2011 to 2015), 36 people have lost their lives in Ireland while carrying out work at height, 9 in the agriculture sector. Many more have suffered serious injuries, some resulting in permanent life-changing disabilities.

Before carrying out any work at height around the farm involving minor repairs on sheds, on buildings or on silos, you must ask yourself are you competent and have you the right equipment to carry out the work safely.

Work other than very minor repairs is considered “Construction Work” and the extensive legal requirements for construction work must be complied with.

Risk Assessment - What could go wrong?

The risk of death and serious injury is so great from “Work at Height” that the law requires that a comprehensive site specific risk assessment must be carried out for all work at height regardless of duration (see sample below). This risk assessment must be carried out by a competent person and must identify all the hazards including the presence of fragile roofing materials and must set out the controls that will be put in place.

The principal risk when working at height is falls, either from ladders, through fragile roofing materials or from unprotected edges of roofs or other structures. In many cases, simple straightforward physical protection measures can prevent falls occurring but too often a lack of foresight and planning results in the necessary protection being neglected during this high-risk work.



Case Study: A young farmer while painting his shed climbed onto the shed roof which collapsed under him causing a fall of just over 3m to his death.



Fragile Roofing Materials

Due to the nature of agricultural buildings requiring light and air movement, many of the structures and materials used are fragile and not weight bearing. A roof is considered fragile if it cannot support the weight of a person or where part or all of the roof can easily be broken or shattered. Most agricultural roofs are made either entirely or partly from fragile materials making carrying out any work at height on them a significant risk.

Fragile roofing materials include:

- galvanised sheeting,
- unreinforced asbestos cement sheeting,
- roof lights such as Perspex sheeting,
- linear sheets on built up roofs, and
- other materials such as glass, wired glass and wood wool slabs.

Roof lights and Perspex sheeting are a particular risk because they can be very hard to identify due to weathering or as they may have been painted over.

A high proportion of deaths are caused by falls through fragile roof coverings. Any work on fragile roofs, however trivial it may seem, must be carefully assessed, planned and supervised. Factors to be taken into account when assessing the risk include:

- roof lights which may have been obscured by paint,
- any repairs carried out in the past, especially if fragile roof sheets have been used for 'patching' an otherwise non-fragile roof (such practices are highly dangerous),
- metal roof sheets which may have deteriorated with age and become fragile, and
- wood wool slabs which may have been weakened by water damage.

Always assume all roofing materials are fragile unless confirmed otherwise by a competent person. A good survey by a competent person, together with local knowledge, will help to identify such problems. If in doubt, always assume the roof is fragile. The precautions described for working on or near fragile roof covering should be rigorously followed, whatever the size of the job.

Planning a safe system of work

Avoid having to go on the roof at all by adapting a method that allows profiled roof sheets or roof lights to be replaced from underneath using a suitable work platform – this may involve the use of adapted roof fixings, available from materials suppliers.

If the work can't be done from underneath and you need access to the top of the roof use a mobile elevating work platform (MEWP) that allows people to work from within the basket without standing on the roof itself. This will have controls in the basket to control all movement. Remember, anyone in the basket must wear a safety harness.

If access onto the fragile roof cannot be avoided, you must mitigate the risks of falling from or through the roof by installing perimeter edge protection and use roofing ladders and crawl boards on the roof surface to spread the loads.



Ensure all the work areas and access platforms are fitted with guard rails. If this is not possible, install safety nets or air bags underneath the roof or use a harness system. Where harnesses are used, make sure you are trained in their use. It's important that they are stored and maintained properly, that they have adequate anchorage points and they are properly used – through appropriate discipline, training and supervision.

Ladders

Deaths and serious injuries can be caused from ladders slipping sideways or kicking out at the base or someone simply falling from the ladder. Ladders should only be used as a means of access or for work of very short duration when there is no other safer way of doing a job. It will often be quicker and safer to use a mobile elevating work platform (MEWP) or a tower scaffold. When using ladders, ensure they are tied or footed to prevent slipping, always keep three points of contact with the ladder and avoid working from or stretching from the ladder.

Summary

1. Do not undertake any roofwork, painting or repairs yourself unless you are competent to do so. Work other than minor repairs on fragile and cladded type roofs requires the worker to be competent and in possession of the relevant valid SOLAS Construction Skills Certification Scheme (CSCS) for Roof Cladding.
2. Risk assess all work at height including considering all specific hazards such as fragile roofs.
3. Select the most suitable system of work and work equipment for the job. Collective protection such as MEWP's must be prioritised over individual protection.
4. Carry out the work in a safe manner in accordance with the HSA Code of Practice for Safety in Roofwork and other relevant guidance (see below).

Further Information

Code of Practice for Safety in Roofwork (available from www.hsa.ie)

Using Ladders Safely – Information Sheet (available from www.hsa.ie)

Regulations for Work at Height are set out in the Safety, Health and Welfare at Work (General Application) Regulations, 2007, Part 4 (available from www.hsa.ie)

Further guidance on minimum standards for roof cladding, side cladding and on the retrofitting of Roof Clear Sheets (Roof lights) with Safety Grids is available on the Department of Agriculture website (www.agriculture.gov.ie)

Contact the Health and Safety Authority at 1890 289 389, email wcu@hsa.ie or visit www.hsa.ie for information in relation to working at a height or for any safety, health and welfare at work matter.

Risk Assessment

A risk assessment must be carried out for all “Work at Height” activity.

	CONTROLS	YES / NO
1.	Carrying out the work from underneath instead of at height has been assessed	
2.	The roof structure, strength and condition is known before work starts	
3.	All roofing materials are assessed before work starts and as work progresses	
4.	Rooflights which may have been obscured by paint are identified	
5.	Any repairs carried out in the past are identified, especially if fragile roof sheets have been used for ‘patching’ an otherwise non-fragile roof	
6.	Deterioration of supports and rusting of metal roof sheets is identified	
7.	Wood wool slabs which may have been weakened by water damage are identified	
8.	Power is isolated in any overhead electric cables close to the roof work	
9.	A safe system of work and necessary precautions are put in place before work starts	
10.	Only competent persons are involved with carrying out the work at height	
11.	Edge protection, fall protection including scaffolding and harnesses are inspected and used correctly	
12.	Safe means of access is provided via ladders, scaffolds and /or other equipment	
13.	Roof openings and fragile roof lights are identified and suitably covered or guarded	
14.	Roof is not overloaded and materials are secured	
15.	Properly designed roofing ladders and crawling boards are used on sloping roofs	
16.	Materials or equipment are not thrown or dropped from the roof	
17.	Unauthorised access to the roof is prevented	
18.	Work at height is only carried out when weather conditions do not pose a risk	
19.	Personal protective equipment is used, including non-slip footwear and safety harnesses	
20.	Emergency and rescue plans are in place	

Useful guidance on certain materials suitable for agricultural buildings may be obtained from the Department of Agriculture, Food and the Marine’s web site at www.agriculture.gov.ie