Safe working on glasshouse roofs

Agriculture Sheet No 12

Introduction

Although the hazards of working on glasshouse roofs appear obvious, every year serious injuries result from people falling through onto wires, hooks, staging or the ground, and from being cut by glass.

This information sheet gives guidance on the steps growers should take to reduce the risks, and by following it growers will help to ensure that they meet general duties under the Health and Safety at Work etc Act 1974, and the provisions of the Management of Health and Safety at Work Regulations 1999 and the Workplace (Health, Safety and Welfare) Regulations 1992. It contains advice on:

- physical precautions needed before accessing, and working on, glasshouse roofs;
- the type of supervision and information required;
- selecting workers to carry out the work.

It does not cover the precautions needed when erecting or demolishing glasshouses, nor those needed to protect against health risks when cleaning glass using acids etc. If these tasks are carried out then other legislation will apply and growers should consult HSE for advice.

'Grower' means the person responsible for management of the work on the premises, whether as employer, manager or self-employed person.

Hazards

Hazards arise when:

- getting onto the roof - slipping ladders or falling while moving from ladder to gutter;
- moving along the gutter - overbalancing or tripping;
- working on the sloping roof - falling through the glass.

If possible, reduce hazards, eg by:

- using roofing materials less likely to be damaged, such as acrylic or polycarbonate sheets;
- using mechanical washing systems or sprinklers;
- replacing glass from below.

If access onto the roof is unavoidable, safe systems of work will be needed.

Systems of work

Before any work on a glasshouse roof begins, someone with a good knowledge of the work and its hazards, and the authority to set standards at the workplace, should devise a safe system of work. It should:

- help those involved in the work understand the risks and how to overcome them;
- describe safe working methods, including measures to protect other people, eg public or other workers;
- state the equipment needed and how it should be used;
- detail the training and competences required;
- explain the need to ensure the structure is free from obvious defects and has enough strength to support equipment and workers, using information from suppliers if necessary;
- take account of the need for emergency or out of hours work, especially if lone working is foreseeable, when proper arrangements for the lone worker's safety should be made.

Before beginning work

Ensure that:

- everyone involved understands, and will follow, the safe system of work;
- where possible the work will be done from inside the house;
- all tools and equipment are safe and suitable for the job;
- only essential tools/equipment are taken onto the roof (use a tool belt where possible);
- only one person is at the same place on the roof at any time (unless unavoidable when each person should use separately supported ladders or boards);
- personal protective equipment is provided and worn;
- regular checks are made on lone workers;
- there is effective communication between everyone doing the work, and others who may be at risk;
- help is available for awkward jobs such as lifting glass onto the roof, or manoeuvring hoses for washing down;
- no routine work takes place under a roof when work is being done above;
- electrical supplies to vents are isolated so that the vents cannot open.

With one metre wide glass, consider using two half width panes rather than one full width sheet.

Getting onto the roof

Always use access ladders that are in good condition, secured in position or footed and at the correct 1 in 4 slope. They should extend at least one metre above the gutter unless there is a suitable hand hold or extended stile.

Moving along the gutter

Use devices to help prevent falls when moving along, or working from, a gutter. If possible, use valley gutter protection such as timber bearers supporting runs of scaffold boards extending at least one metre from the gutter on each side. Many glasshouses will not support this weight, however, and other equipment should then be used, such as:

- permanent handrailing;
- a taut line with harness;
- ride-on trolleys;
- lightweight balancing frames; or *as a last resort*
- a lightweight bar (eg aluminium pole) resting on the ridges either side of the gutter and moved along as necessary.

The equipment used will depend on the type of glasshouse, the width of the gutter and the job to be done. All equipment should be properly designed, constructed and maintained, and ride-on trolleys, balancing frames and lightweight bars should be:

- light and easily carried;
- robust and strong enough to support the loads they will be exposed to, eg the weight of a person;
- easily transferred from roof to roof without putting people at risk.

Working on the sloping roof

Ensure everyone works from suitable access equipment such as roofing ladders or crawling boards. Work should never be done by lying directly on the glass itself. Glasshouse manufacturers should be able to give advice about suitable access equipment for particular glasshouse types, eg those with almost flush glazing bars, which can make positioning ladders etc difficult.

Selection of staff

Everyone working on glasshouse roofs should be:

- adequately trained and supervised;
- physically and mentally able, and without obvious medical conditions which would make them unsuitable for the job;
- authorised by the grower.

Clothing

A common hazard is snagging trouser legs on glazing bars. Those working on the roof should ensure trouser bottoms are not loose or flapping, eg by tucking trouser bottoms into boots or socks or wearing trousers with elasticated bottoms.
Make sure that:

- all footwear has slip resistant soles;
- those at risk from falling glass or other objects wear a safety helmet (with visor) and protective jacket (eg a thick ‘donkey’ jacket);
- those handling glass use protective gloves, glaziers’ fingerless mitts, or suction pads.

Weather

Work on glasshouse roofs is more hazardous in adverse weather conditions. Only access roofs, or handle glass, in dry, still and overcast conditions. If this is not possible, be particularly careful if it is slippery under foot; there is bright sunlight; it is windy; there is frost or ice; or it is raining.

Using contractors

Although using contractors for glasshouse roof work may reduce the risks to their own staff, growers should:

- remember that they have legal duties to such contractors;
- ensure that contractors are aware of hazards specific to the premises (eg use of particular chemicals at certain times, overhead power lines);
- ensure that contractors are not put at risk by other work activities on the premises;
- ensure that the workforce and the public are not put at risk by contractors.

Contractors should ensure they:

- notify the grower before beginning work;
- agree a system of work with the grower;
- comply with their own legal duties.

Both grower and contractor should know what to expect of the other, ie the sequence of work and when/where it will take place.

Further information

HSE priced and free publications are available by mail order from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA Tel: 01787 881165 Fax: 01787 313995 Website: www.hsebooks.co.uk (HSE priced publications are also available from bookshops and free leaflets can be downloaded from HSE’s website: www.hse.gov.uk.)

For information about health and safety ring HSE’s Infoline Tel: 08701 545500 Fax: 02920 859260 e-mail: hseinformationservices@natbrit.com or write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG.

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

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