

HEALTH AND SAFETY FOR PIG KEEPERS



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Health and safety is vital to all farms. The aim is to make your farm a safe, healthy and legal place of work for employers, employees and others who may be affected by what you do. This includes full, casual or part time workers, trainees, customers, neighbours, sales people, members of the public and uninvited visitors. Health and safety within the agricultural sector covers a wide range of topics, however, this leaflet is a guide to the issues that specifically pose a problem to the pig industry.

Health and Safety Policy

If you employ five or more people, you must have a written Health and Safety Policy. This contains your statement of general policy on health and safety at work and arrangements for putting it into practice.

Although not legally required to do so, businesses with less than five employees should also consider having such a policy, as good practice.

Risk Assessments

You should strengthen your Health and Safety Policy by carrying out risk assessments of your workplace – careful examinations of what could cause harm and who might be affected.

Again, if you have more than five employees, you must record the significant findings of this exercise.

General Health and Safety Issues

Many health and safety issues exist within pig farms and these can pose a risk if not dealt with correctly. These may include:

- Workplace transport
- Machinery and equipment
- Preventing falls and working at height
- Child and public safety
- Health problems in agriculture including manual handling, dust and noise
- Using chemicals, pesticides and veterinary medicines safely
- Personal protective equipment (PPE).

To find out about these specific issues and a more detailed overview of the health and safety issues affecting the agricultural sector, please refer to <http://www.hse.gov.uk/agriculture/index.htm>

Key Health and Safety Issues Affecting Pig Husbandry

Handling Pigs

The most common accidents to people occur when handling pigs. Wounds to the legs and crush injuries, for example, caused by poor handling techniques. These types of injuries can be reduced by:

- Making sure staff have received training or instruction in safe and efficient handling techniques
- Keep a visual check of the animal and avoid facing away from it
- Design and layout of buildings and facilities

Handling Pigs (cont'd)

- Ensure a clear escape route when in a pen with a boar or sow with a litter or a sow in close proximity to another sow and litter
- Ensure the sow is properly restrained or segregated when working with her piglets
- Make full use of pig boards when moving or working among animals. Pig boards help guide the animal in the direction you require it to go and are a good form of protecting the handlers' legs if the pig decides to bite
- Lift young pigs by grasping the hind leg and supporting their chest with the other hand
- Pigs above 12kg should not be lifted and when they need to be moved they should be herded
- All stock handlers should be aware that boars can be very aggressive if left alone. All boars should be able to hear, see and smell other pigs
- Boar tusks may be reduced in length where necessary to prevent injuries to other animals or for safety reasons.



Outdoor Units

Electricity and Overhead Power Lines (OHPLs)

Electricity has the potential to be extremely dangerous and if the correct precautions are not taken, can cause injury or death. Also, it is not uncommon for pig farm fires to be a result of poor or faulty electrics. The main problems involve contact with overhead power lines (OHPLs). Electricity can jump gaps when equipment or machinery gets close enough – you do not need to contact OHPLs to be injured. The main problems encountered involve tractors and telehandlers moving housing arcs. The advice from HSE is as follows:

- When siting outdoor units, avoid areas with OHPLs if possible. If not, then you need to try and organise the site so that the risk of contact is minimised
- Do not lift anything above tractor or loader height when working within a 10m horizontal distance of OHPLs
- Know the full height of equipment and machinery when all parts are raised to their full extent. Check these heights against the line clearance distances marked on the farm map so that you know where the particular areas of risk are
- If you have no other option but to move equipment (eg feed bins) close to OHPLs, then you must contact your electricity supplier and temporarily disconnect them
- If high machines frequently work near OHPLs, eg in the farmyard, consult your local electricity company about burying or diverting the lines

Electricity and Overhead Power Lines (OHPLs) (cont'd)

- Sign areas of risk from all approaches, look at physical barriers, ie roped area, to prevent machinery access to cables or highlight the restricted areas of access on concrete if possible.



For more information on OHPLs please refer to the HSE 'Shock Horror' Publication <http://www.hse.gov.uk/pubns/indg389.pdf>

Case Study

- Telehandler struck 33kV OHPL whilst moving metal pig arcs
- Employee received severe burns resulting in amputated toes
- No training received
- No risk assessment
- Company fined £40,000
- Company director fined £6,250

Electric Fences

Electric fences can pose a hazard when incorrectly sited or when poor maintenance causes contact with OHPLs. In general electric fences should not be placed under power lines if the fence height exceeds 1.2m above ground. If the fence height exceeds this, for example to create a gateway, then you must ensure that safety clearance distances for the type of power line are complied with which can be obtained from the Distribution Network Operator.

If your electric fence is not in use then it must be earthed to avoid the build up of electricity.

For your Distribution Network Operator and relevant emergency numbers visit www.nationalgrid.com/uk/Electricity/AboutElectricity/DistributionCompanies/

Portable Generators

Portable generators are becoming much more common on pig farms due to their convenience and relatively low cost. However, there are a few guidelines which must be followed when using such equipment:

- A residual-current device (RCD) must be present on all generators
- Ensure earthing of the generator system to enable the RCD to operate on occurrence of the first fault to true earth.

For more information on electricity, please refer to HSE website at <http://www.hse.gov.uk/agriculture/topics/electricity.htm>

Indoor Units

Electricity

Indoor pig farmers often have to use electricity in damp conditions. Problems in this area can be prevented by taking the following advice, all information is based on mains voltage (230V and 400V):

- Socket outlets, switches and light fittings located outdoors, in damp or corrosive atmospheres or where steam or water jets are used, are of an appropriate type and protected by a residual current device (RCD). Get advice – never use a household-type socket or switch
- Use IP rated sockets, switches and fittings which are resistant to splashing water and lots of dust in the surrounding environment
- All fixed electrical installations should be inspected by a qualified electrician every 3–5 years. Portable electrical equipment may be tested by a suitably trained person using a Portable Appliance Test (PAT) test every 6–12 months.



IP rated socket



PAT passed sticker

Farm Transport

Pig husbandry involves frequent use of tractors, handlers and other machinery, often under difficult conditions. Incorrect use of these vehicles can have serious consequences. Incidents can be prevented by following the guidance below:

- Ensure all machinery has been correctly maintained and has received regular services – keep a record of these
- All staff are suitably trained and hold a 'certificate of competence' where required
- Users have been supplied with the correct PPE.

For more detailed guidance on all-terrain vehicles refer to the HSE Agriculture Information sheet no 33 <http://www.hse.gov.uk/pubns/ais33.pdf>

For specific guidance on telehandlers and other lifting equipment refer to the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) information sheet <http://www.hse.gov.uk/pubns/ais28.pdf>

Overturning Vehicles

Fields, tracks and yards may often be uneven or on variable gradients. When working within these types of environments you must ensure the vehicle is fitted with rollover protective structures (ROPS) and operatives wear their seatbelt if there is a risk of overturning. Seat belts are a legal requirement on all tractors where there is a risk of overturning and it is reasonably practicable to fit one. Accidents happen because drivers misjudge slopes, ignore changing ground conditions and forget the effect of loads on stability. To reduce the risk of overturning you can:

- Make sure that tractors and machines are properly equipped and maintained, especially brakes, steering and tyres. Consider wide wheel settings for work on slopes
- Plan the operation in advance and make sure operators know the key elements of safe working on slopes.

Key areas to remember:

- You should always turn uphill when working across a slope and descend straight down the gentlest gradient
- You cannot always safely descend a slope that you safely drove up
- Tractor rear wheel grip lessens as the load of a rear-mounted machine is emptied
- Tractors with trailed rollers, four-wheel trailers etc will have extra thrust imposed with no additional weight – they may slide away out of control
- Only carry the number of passengers a vehicle is equipped to transport. Doors must be closed at all times and no loose equipment should be carried in the cabin.

For more information, refer to HSE free leaflet 'Tractor Action: A step-by-step guide to using tractors safely' <http://www.hse.gov.uk/pubns/indg185.pdf>



Bulk Feed Hoppers/Sealed Feed Bins

Feed hoppers and storage bins are used daily within pig farming. Hoppers can become problematic when being inspected and also loaded. Potential risks involved with hoppers and bins can be reduced by the following advice:

Bulk Feed Hoppers/Sealed Feed Bins (cont'd)

- Air vents must be kept clear of obstruction to reduce the risk of the hopper bursting during the filling operation
- Safe access must be provided to the inspection hatch in the form of a ladder, handhold and guard rail where necessary
- Hoppers incorporating rotary or 'star' valves should be electrically isolated before entering or before clearance of a blockage
- Bridging of meal within a feed storage hopper should preferably be dealt with from outside by tapping the hopper sides or using a long-handled probe from a place of safety. No entry should be made into a hopper either above or below any bridged meal
- If entry into a hopper is unavoidable, then you need to develop a safe system of work that has to be followed. Ventilation, air testing, training and correct PPE may need to be considered
- Regularly check feed bins for structural deterioration
- Trailers used for temporary mobile storage should not be left in a raised position unless they are properly supported by means other than hydraulics
- Feed bins and hoppers need to be sited so they are accessible to HGVs and away from power lines.



Slurry Store/Lagoons

Indoor pig farms produce a large amount of slurry and all farms are required to have slurry storage facilities. Slurry can be stored on-site in slurry lagoons, under-floor slatted pits and other above/below ground stores. These stores and lagoons can pose a potential health and safety risk if not correctly maintained. See below for ways to prevent potential risks associated:

- Ensure all lagoons/stores are fenced off in order to prevent unauthorised access, which could lead to accidental falls and potential drowning. Refer to HSE Agriculture Information Sheet No 9 'Preventing access to effluent storage and similar areas on farms' for more information <http://www.hse.gov.uk/pubns/ais9.pdf>
- Tyre ladders (tyres strung together with rope) or a knotted rope available on the earth bank lagoon side slopes, to assist with exit if someone falls in
- Appropriate safety signs must be present at the side of all lagoons
- All stores and lagoons are required to have a fence and/or cover
- Below-ground stores require a cover which can withstand a forcible traffic load and are heavy enough for children not to be able to lift them. They must also be locked or secured to prevent unauthorised entry. The use of permanent connection points can avoid the need to open covers
- Stores, reception pits and channels must have a 20 year design life.

Slurry Store/Lagoons (cont'd)

Farm slurries produce poisonous gases and this becomes a particular problem when stored in confined spaces, such as slurry stores. Precautions must be taken when dealing with such situations, therefore, some guidelines are listed below to assist with this:

- During agitation, large quantities of toxic gas can be produced, so never lean or look closely into slurry pits when this is going on
- Display signs warning of the dangers
- Never enter a confined space used for slurry storage unless it is absolutely necessary and the person has been equipped with the correct PPE and breathing apparatus and received appropriate training
- No smoking or naked flames near stored slurry.

For more information on confined spaces, HSE has produced an information sheet 'Managing confined spaces on farms' <http://www.hse.gov.uk/pubns/ais26.pdf>



Worker Welfare

Lone working is an inevitable part of farming, however, it is the employer's duty to keep their employees safe while at work. This may be challenging when lone working is necessary to the job, however, suitable arrangements should be made to ensure lone workers are in regular communication, have been correctly trained to carry out the job and supplied with the correct equipment and PPE.

HSE has produced a leaflet with more information entitled 'Working Alone' <http://www.hse.gov.uk/pubns/indg73.pdf>

The pig industry is also faced with the challenge of employing migrant workers, whose first language is not English. Communication can be difficult, however, it is vital to inform them of any health and safety issues that they may face. Specific hazards on the farm may need to be highlighted in the appropriate language and with clear diagrams.

BPEX have published a number of 'Work Instructions' in Polish, which can be downloaded from our website <http://www.bpex.org.uk/publications/WorkInstructions.aspx>

Or use the HSE link for more information on migrant workers <http://www.hse.gov.uk/migrantworkers/index.htm>

Noise

Large numbers of intensively housed pigs in a building can generate noise levels of 100dB or above, especially at feeding time. So even short term exposure can be harmful, particularly if workers are exposed to other sources of noise during the day. Control measures to reduce exposure to harmful levels of noise can include:

- The use of mechanical or automated feeding systems to reduce the need to enter the building when it is at its noisiest, eg at feeding time
- Making sure any work that needs to be done inside the building is carried out when the animals are quiet
- Fitting any controls for the feeding system away from the noise or in a protected area, eg a noise proof enclosure or using ear defenders.

Veterinary Medicines

Work with veterinary medicines (VMs) should only be undertaken by competent staff who have received adequate instruction, information and training. The first priority is to select the least hazardous product appropriate for the treatment. Check that you have the right equipment and facilities to enable the job to be done safely. Adequate animal restraint is important to reduce the risk of accidental self injection. Applicators with shrouded needles, automatic needle guards or other protective devices can significantly reduce the risk of accidental self injection. The risk of infection from a dirty needle can be reduced by using devices that contain a reservoir of disinfectant through which the needle is drawn before each injection.

- Always follow the manufacturer's instructions and wear any personal protective equipment necessary, eg gloves, aprons, face shield etc
- Dispose of used needles safely, eg in a purpose made sharps box
- Store VMs safely in a suitable locked cupboard or other secure place where they cannot be accessed by children
- Observe any precautions or special instructions, eg certain products are not to be used by pregnant workers
- Everyone who works with veterinary medicines should make sure that high standards of personal hygiene are observed
- Anyone who feels unwell after the use of a VM should seek medical advice as soon as possible. Accidental self injection with an oil based vaccine is a medical emergency and the injured person should be driven to hospital without delay.

For more information on 'The Safe Use of Veterinary Medicines' see the BPEX publication at www.bpex.org.uk/Article.aspx?ID=301126



Musculo Skeletal Disorders (MSDs)

In agriculture, back, neck and limb disorders are the most common cause of ill health. Many of these injuries are caused or made worse by poor manual handling practice. Injuries are not only caused by the weight of the object being handled but also from other factors such as the size, shape and available grip, the way you carry a load and how often you have to do the job.

The solutions to many manual handling tasks usually involve a combination of physical measures, systems of work and worker training. Reducing the risks from manual handling will usually improve the efficiency of the task.

The starting point is to avoid hazardous manual handling. If the handling task cannot be avoided, then you will need to assess the risks and take steps to reduce it, eg by providing mechanical assistance. Where this is not possible, then you will need to look at introducing changes to the task, the load and/or the working environment to reduce the risk to an acceptable level.

The following table gives some practical examples:

Task	Solutions	Comments
Moving bags of feed	Replace with bulk feed	Store feed in silos and transport it by means of pipes/augers to eliminate
Moving pig arcs	Use telescopic handler with appropriate attachments/lifting gear	Mechanical handling eliminates the need for manual handling
Removing dead animals from crates/buildings	Use mini tractor with winch or skid steer loader	Mechanical handling eliminates the need for manual handling
Transporting piglets	Use suitable trolley, feed barrow or cart	Several piglets can be moved at once

Even with some of the solutions you will still need to apply manual effort. Training in good lifting technique is valuable but is no substitute for other risk-reduction measures, such as lifting aids and mechanical handling.

Further information on other health hazards, such as respiratory diseases and zoonoses, can be found on the HSE website at <http://www.hse.gov.uk/agriculture/topics/health.htm>

Conclusion

By following the above guidance, farmers will help to ensure that they meet current health and safety regulations and therefore help avoid accidents occurring on farm. For more information on any of the issues raised in this document or any other questions you have, please contact the HSE Infoline: 0845 345 0055.

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