

Handling and housing cattle

HSE information sheet

Agriculture Information Sheet No 35 (Revision 1)

Introduction

This information sheet provides general advice for farmers on safe handling of adult cattle, including stock bulls, bull beef, suckler and dairy cattle, and on housing stock bulls and bull beef safely. It also gives advice on preparing cattle for slaughter. It does not include the precautions necessary to protect the public when keeping cattle in fields with public access, which the Agriculture Information Sheet AIS17 *Keeping cattle in fields with public access* covers.

Every year there are deaths and injuries to farmers and other workers while handling cattle. These are often caused by using poor equipment, ineffective methods of moving cattle and an underestimation of the strength, speed or behaviour of cattle.

The risks

Handling cattle always involves a risk of injury from crushing, kicking, butting or goring. The risk is increased if the work involves animals that have not been handled frequently, such as those from hills or moorland, sucklers or newly calved cattle. Certain jobs, such as veterinary work, may increase the risk further. However, proper handling systems, trained and competent staff, and a rigorous culling policy can help make sure cattle handling can be carried out in relative safety. You should never underestimate the risk from cattle, even with good precautions in place.

Familiarity with individual cattle can lead to complacency, especially when handling bulls. A number of accidents, some fatal, happen every year because stockpeople fail to treat bulls with respect. A playful bull can kill you just as easily as an angry one.

General principles of cattle handling

You need to consider the following:

- the person – including their mental and physical abilities, training and experience;

- the equipment available – including races, crushes, loading facilities and bull-handling equipment; and
- the animal – including its health and familiarity with being handled.

The person

Everyone handling cattle should be:

- able to use the handling and other safety equipment provided;
- aware of the dangers when handling cattle and be supervised until they are competent;
- able to work calmly with the cattle, with a minimum of shouting, impatience or unnecessary force; and
- in good health and properly trained in safe work methods. Training in livestock handling is available from training groups, colleges and individual training providers.

Some work with cattle will need two people. Always assess the need for help before beginning the task.

There is no legal upper or lower age limit for cattle handling, as individuals' capabilities vary widely, but children under 13 should not normally be allowed to enter cattle housing or handle cattle. Many incidents involving cattle happen to people beyond normal retirement age, when they are less agile. Consider the risks carefully before anyone over 65 works with cattle, and if so, what they can safely do.

The equipment

Every farm that handles cattle should have proper handling facilities. These should be well-maintained and in good working order. A race and a crush suitable for the animals to be handled are essential. Makeshift gates and hurdles are not sufficient, and will result in less efficient handling as well as risking injury. Never attempt to treat or work on any animal that is held by gates alone, or that is otherwise free to move at will. If you have to attend to 'downer' cattle, or animals in loose boxes or isolation pens, and it is not possible to secure them, make sure you have an adequate escape route and will not be crushed if the animal rolls or stands suddenly. Special equipment is needed for handling stock bulls out of the pen.

The race

Check that:

- animals can readily enter the race, which should have a funnel end, and there is enough room in the collecting pen for them to feed into the funnel easily. A circular collecting pen allows staff to stand safely behind a forcing gate as they move animals into the race, and keeps the animals moving;
- animals can see clearly to the crush and beyond, so they will readily move along the race, which may be curved, but should not include tight turns. Animals will be more prepared to move towards a light area than into the dark;
- the sides of the race are high enough to prevent animals from jumping over them, and they are properly secured to the ground and to each other – sheeting the sides of the race helps to keep cattle moving by reducing visual disturbances such as shadows and shields them from other animals; and
- you can contain the lead animal in the race while it waits its turn in the crush. Hinged or sliding doors are suitable, but be sure they are operated from the working side of the race so the operator does not have to reach across it to close the gate. No one should work on an animal in the crush with an unsecured animal waiting in the race behind.

The crush

A crush which will allow most straightforward tasks to be carried out in safety (including oral treatments and work from the rear end, **but not** belly or foot trimming) will:

- have a locking front gate and yoke (ideally self-locking) to allow the animal's head to be firmly held. Additional head bars will prevent the animal tossing its head up and injuring people;
- have a rump rail, chain or bar to minimise forward and backward movement of the animal. Make sure this is always used;
- be secured to the ground or, if mobile, to a vehicle;
- be positioned to allow you to work safely around it, without the risk of contact with other animals, and have good natural or artificial lighting;
- allow gates etc to open smoothly with the minimum of effort and noise. Regular maintenance will help; and
- have a slip-resistant floor, made of sound hardwood bolted into place (nails are not suitable), metal chequer-plate, or with a rubber mat over the base.

Consider the need for shedder gates after the crush to allow animals to be sorted into groups. Work around the crush will be more convenient if it is under cover with a workbench nearby (for documentation, veterinary medicines, instruments etc).

Belly clipping

While some abattoirs offer a post-slaughter clipping service, cattle are usually required to be presented to an abattoir in a clean condition. Research has shown that the dirtier the hide, the greater the potential for carcase contamination with bacteria such as *E coli* O157. To achieve the standards needed, farmers may need to:

- change their cattle production practices to keep cattle clean and reduce the need for clipping;
- improve housing and transport arrangements;
- clip the lower parts of the animals before sending them to the abattoir.

The Food Standards Agency has produced advice on husbandry systems farmers can adopt to keep animals clean, *Clean beef cattle for slaughter: A guide for producers* (see 'Further reading').

The husbandry aspects discussed include; finishing cattle at grass, diet, housing, the general health of cattle and the use of a marketing yard. Putting these systems in place will reduce the need to clean cattle before they leave the farm.

Even with good husbandry practices it may be necessary from time-to-time to clip parts of your cattle before presenting them for slaughter. If you do, you will need to take precautions to help control the risk of injury.

The main hazards are from crushing when you move the animal from the pen to the crush and kicking when you access the underside of the animal to clip it. Clipping should only be carried out using properly designed handling equipment and safe working techniques. It is therefore essential that you assess the suitability of your cattle handling facilities and whether you need to modify their design, and to working methods or tools.

Remember that:

- some cattle will be semi-wild and not used to being handled;
- you cannot safely clip the belly of an animal in a crush with enclosed and fixed bottom sides, or which has permanently fixed vertical or horizontal bars close to the belly area of the animal;
- the flanks and legs can be clipped in relative safety standing up and behind the animal, but belly clipping will always involve work forward of, and close to, the rear legs.

In addition to the general guidance on the use of crushes, check that:

- you can fully open the bottom half of the sides of the crush;
- there are no permanent vertical bars when the doors are open which could allow the operator's hand to be trapped if the animal kicks;
- both sides of the crush open and that you have enough room along each side of the crush to work safely. If not, you will have to reach underneath the animal – this is **not** safe practice;
- you can avoid stretching too far from one position during clipping, as this will result in your head moving down and in towards the animal;
- you can work facing the front of the animal, as this will prevent you leaning into the direction of any kick;
- the animal will be adequately restrained from kicking – consider whether you should use an anti-kicking device.

Anti-kicking devices

There are a number of devices on the market designed to minimise an animal's freedom to kick. These include horizontal anti-kicking bars, which can typically be swung and locked into position and anti-kicking aprons, which are tensioned in front of the back legs. The experience of farmers who have used these devices suggests they can work well. However, whatever devices are used, the animal should always be fully restrained at the head and rear.

Artificial insemination (AI) stalls

To prevent injuries to inseminators, use a crush, or some other means of keeping the animal tightly restrained in an area small enough to prevent movement during insemination. Loose stalls in which the animal can move freely are not suitable. Ideally, position the AI facility by the parlour so that animals can move straight into it after milking. If necessary, check that adequate staff are available to help the inseminator move the cattle into the crush safely.

Other equipment

Sticks and prods should never be used to strike an animal – this may breach animal welfare legislation as well as agitating it. Before beginning work on any animal, check it will be adequately restrained from kicking – consider whether you should use an anti-kicking device. For specialist tasks such as foot trimming, use a purpose-designed crush, eg with foot restraints, belly winches and adequate space, especially at the rear end. Check that there are a minimum of trapping points so that if the animal kicks out, parts of your body will not be trapped against the crush.

Halters and ropes may be useful but will normally require specially instructed users. Always use suitable ropes – do not improvise with bale string or similar.

The animal

Many cattle being handled will be familiar with the process – dairy cattle, for instance, will normally be handled daily. Make sure that heifers new to the milking herd, which may be less familiar with the noises, activity and people involved, are allowed to become accustomed to them before they are first milked. Suckler cattle, or fattening cattle kept on hills or moors, may be handled very infrequently and so the risks may be greater. Newly calved cows are very protective of their calves and should be treated with caution.

Bull-beef animals may not have developed all the aggressive traits accompanying maturity, but they can never be regarded as safe. Ensure safe management practices are in place from the start so that you are not put at risk when the low-risk calf becomes a potentially dangerous semi-adult.

If you have an animal that is habitually aggressive or difficult to handle, consider whether you should cull it from the herd. If this is not an option, you should ensure your equipment and systems of work are capable of dealing with it, and that staff, and other people such as vets, are aware of the potential difficulties. Dehorning cattle can temporarily quieten them, but may have welfare implications. Consult a vet before doing this.

Working with cattle in the field

Some tasks may have to be carried out in the field without adequate handling facilities. If you have to separate an animal from the herd, or carry out any work on an animal in the field, make sure you can do so safely. Ear-tagging may pose particular problems as it may arouse the dam's protective instincts, resulting in risks to the stockperson.

Always make sure that:

- there are at least two people present if you have to separate an animal from the herd in the field, or during ear tagging with the dam unsecured;
- you have a vehicle close to where the task is to be carried out;
- the second person acts to dissuade other animals or the dam from approaching too close to the task, and warns when it is necessary to take avoiding action, eg entering the cab of the vehicle.

If you use portable or fixed field tethers for bulls in fields, make sure that:

- the tether allows free movement with a minimal risk of entangling the bull;
- the connection with the tether passes through the nose-ring regardless of whether or not a head collar or chain is used;

- you never make any connection direct to the nose-ring;
- the tether is secured to the ground;
- the bull's temperament is such that you can approach in safety to attach the handling ropes and poles before leading him back to the pen.

Stock bulls

Stock bulls, which are often kept separately from other cattle, may be frustrated by the lack of contact and so be more aggressive. Bulls are more likely to be amenable to handling if, from an early age, they learn to associate the presence of people with pleasant things, such as feeding, grooming and exercise. If you buy, hire or borrow an adult bull, find out how he was handled and the kind of equipment used, and take time to get to know him – remembering to be especially cautious at this stage. Consider whether you should have your bulls ringed at about ten months old – this provides a convenient way of handling them, especially if they are polled. Check nose-rings regularly for wear or damage.

Dairy bulls

All stock bulls of a dairy breed should be kept in a purpose-made bull pen. It is not acceptable to allow these bulls to run through the parlour at milking time, to tether them by neck chains in cow stalls or cubicles, or allow them to run free in yards in which stockpeople may work. The bullpen should:

- be sited where the bull can see other cattle and farm activity, and be large enough and strong enough to contain the animal. A 215-mm-thick wall of reinforced concrete blocks, topped with railings or bars so that he can see what is going on, is suitable. Railings or bars should have a minimum outside diameter of 48 mm;
- have outer walls, fences and gates at least 1.5 m high and be designed to prevent children passing through or over into the bull pen. The bars in gates and partitions should be vertical with spaces between them of no more than 100 mm;
- allow all external doors and gates to be kept locked or otherwise secured to prevent unauthorised access. Catches should be stockproof;
- allow the bull to be fed and watered from outside the pen, eg through a feeding hatch. The feeding area should incorporate a yoke (or a chain and spring hook if the bull is ringed) so that he may be secured without the need to enter the pen;
- include an exercise yard to which entry is controlled by a gate operated from the outside. This will allow bedding up or cleaning the inside or outside area while the bull is contained in the other area;
- have a refuge or emergency escape route which is free of obstruction and impassable to children and

dogs from the outside, eg by fencing a small area on the outside so that a person can escape but nothing else can enter;

- have free-draining and slip-resistant floors, and adequate natural and artificial lighting (you may need to work around the bull at night);
- incorporate a service pen, accessible by the cow from the outside. Provide a yoke or something similar to allow the cow's head to be secured, and also provide good footing for the bull, such as a grooved floor surface. Consider providing service ramps for the bull's front legs. Collecting semen for AI etc should be done outside the service pen, controlling the bull using a bull pole or with a handler on each side using ropes;
- have safety signs warning of the presence of a bull at the entrance to any building where the bull is kept. Use a triangular sign with a bull's head in black on a yellow background with a black border.

Never enter the enclosure when the bull is loose.

Controlling the bull out of the pen

When a stock bull has to leave the pen, you must use suitable equipment to secure and lead him. Consider breed, past handling and temperament to decide which of the following methods to use:

- two people, one using a bullpole attached to the bull's nose-ring and the other using a rope or chain attached to the halter or head chain via the nose-ring;
- two people both using ropes or chains, one rope or chain attached to a halter, the other either attached directly to the nose-ring or via the nose-ring to the halter;
- one person using a bullpole attached to the bull's nose-ring and a rope or chain attached to a halter, or head chain, via the nose-ring. Make sure there is a competent person standing by to help control the bull if necessary.

If the bull has not been ringed, ensure you have another equally effective means of handling, eg a halter and a rope around the base of the bull's horns.

Bull handlers should:

- hold the bullpole, rope or chain firmly without exerting unnecessary pressure;
- keep the bull under observation;
- walk at a steady, slow pace slightly ahead of the bull; and
- keep the bull's head up at all times.

Beef-type stock bulls

If you keep a beef-type stock bull in a bullpen it should meet the standard described for dairy bulls. If you run such a bull, or a dual-purpose bull, with the milking

herd he should, wherever possible, be safely excluded from the cows at milking time and not allowed to pass through the parlour. But, if you do not have adequate handling facilities or enough staff at all milking times to allow this, the bull may be allowed into the parlour, as long as it is large enough, he can be kept quiet during the milking period (eg by feeding) and shows no sign of distress. Alternatively, let the bull into the parlour as you let milked cattle out, so that he can pass straight through. Make sure that you have a safe system of work for this activity and that it is known to everyone likely to be involved.

If the bull runs loose in the cattle housing, make sure other people, such as visitors or casual workers, know he is loose and the precautions they should take.

Bull beef

Although bull-beef animals are often sent to slaughter before full sexual maturity, they can still present a risk to those working with them. Make sure you:

- keep animals in groups of no more than 15–20; and can carry out all feeding, bedding and other routine husbandry tasks without entering the pen. You should be able to open and close internal pen division gates from outside the pen. By making sure you have an empty pen in any arrangement of adjacent pens, you will always be able to move animals out of any pen you need to enter;
- check that pen divisions and gates are strong enough, securely fastened in place and can be kept at a height of around 1.5 m above the floor or bedding. Suitable materials would include tubular steel rails with a minimum outside diameter of 48 mm;
- check that the lower 1 m of the pen divisions fronting on to passageways etc will deter access by children (eg by using mesh or sheet metal, but make sure that ear tags will not be pulled off if cattle rub their heads on the divisions);
- keep the outside doors of any building used for bull beef secured except when access is needed, and put up prominent signs warning of the presence of bulls;
- check that handling, weighing, veterinary treatment and shedding arrangements are safe – and designed for the often greater strength and volatility of a group of young bulls;
- arrange your race, crush and loading areas so that no one ever needs to be in them with the animals. A properly designed loading area will allow you to keep parts of the fixed handling system or the lorry tailboard gates between you and the animals at all times. Keep yard or farm perimeter gates closed when loading bulls to contain an escaped animal within the yard or farm.

Never enter a pen containing, and never allow a lone person to handle, bull-beef animals.

Further reading

Clean beef cattle for slaughter: A guide for producers which is available to download at <http://www.food.gov.uk/multimedia/pdfs/publication/cleanbeefsaf1007.pdf>

BS 5502: Part 40: 2005 *Buildings and structures for agriculture: Code of practice for design and construction of cattle buildings* British Standards Institution

Further information

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