

## Technical Note No 2

# Humane Dispatch and Disposal of Infant Calves

## Summary

As unpalatable as it may be, the on-farm killing of healthy calves became a reality with the ending of the Calf Processing Aid Scheme (CPAS). Despite some calves being financially worthless, their welfare is of utmost importance and they must be properly cared for.

Killing livestock on-farm can be distressing and is often aesthetically unpleasant. However, at times it is necessary to take special measures to prevent avoidable, if unintentional, suffering. For example, unwanted infant calves should be killed immediately, and 'be spared any avoidable pain, distress or suffering', rather than left without nourishment for any appreciable length of time. All owners, managers and stockmen must be aware of their legal and ethical responsibilities to these animals.

Every farm should have an effective documented procedure in place to deal with unwanted calves as quickly and humanely as possible.

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## **Regulations**

Legislation requires that no “avoidable pain, distress or suffering” is caused or allowed to calves during their killing and related operations.

Calves (including buffalo and bison) killed on-farm within 36 hours of birth (dairy herd), or 20 days of birth (non-dairy herd), do not need ear tags or a passport. If they are moved off the farm alive, even to a knackery or hunt kennel for killing, then they must have two official ear tags with matching numbers, and a temporary passport which matches the numbers on the ear tags.

## **Options available**

There are three options open to owners when faced with unwanted or surplus calves. They may be sold-on for rearing, be killed, or be reared on their farm of origin for meat. Before coming to a decision producers, will have to take into account, in order of priority, the welfare, practical and financial implications of each option. This leaflet concentrates on the practicalities of the humane dispatch and disposal of the animals.

## **Suitable methods**

An appropriate firearm is the most effective and humane means of killing calves. External trauma (a heavy blow to the head with a blunt instrument) is not an option when dealing with calves, and anyone using this method may be subject to prosecution.

Alternatively, chemical euthanasia may be undertaken, but this can only be carried out by a veterinary surgeon and will incur charges which may be prohibitive.

## **Firearms**

Firearms suitable for the on-farm killing of calves are as follows:

- shotguns (.410, 28, 20, 16 & 12 Bore - use number 4, 5 or 6 birdshot)
- captive-bolt equipment
- rifles (.22 or .17 rim-fire)
- humane killers (Greener ‘Bell’ Guns and ‘Safti-Killers’, general-purpose handguns and purpose-built pistols)

## **Shotguns**

In the hands of a competent operator, a shotgun is probably the best weapon for the humane destruction of calves. The correct use of a shotgun obviates the need to bleed or pith and it is much safer than a rifle or pistol, as the shot disperses within the cranium, largely reducing the risk of operator injury. However, in the interest of operator safety, shotguns should not be used in enclosed spaces and/or on hard surfaces. Also, the physical appearance of the calf after being shot can be very distressing.

## **Captive-bolt equipment**

Captive-bolt devices are effective and safe, but it must be remembered that they are humane stunners, not humane killers. For the on-farm killing of calves, it is recommended that the heaviest charge available for the captive-bolt is used. The animal should be then pithed or bled to ensure rapid death.

A deep cut from ear to ear with a sharp knife will ensure all major vessels are severed; however, with calves it is better to use a chest stick where possible. Captive-bolt equipment must always be cleaned after use in order to prevent corrosion and pitting of the bolt. A build-up of carbon deposits in the breech can greatly reduce the velocity of the bolt; regular cleaning and maintenance will prevent this.

Captive-bolt equipment is no longer subject to firearms legislation (since February 1998), consequently it is now easier to obtain. However, when using captive-bolt equipment for the routine culling of livestock, 'in the course or furtherance of a business', it is necessary for the operator to hold a current slaughter licence (***The Welfare of Animals at the Time of Killing (England) Regulations 2015 (WATOK)***) [See relevant legislation for Scotland, Wales and Northern Ireland]. The reader should also be aware of the provisions laid out in Council Regulation (EC) 1099/2009, which came into force on 1st January 2013 (see Technical Note No 26).

To obtain a WATOK licence you must contact the Animal and Plant Health Agency (APHA) (Tel: 0208 225 7636), and provide them with written evidence from an authorised veterinary surgeon that in his/her opinion you are:

- i) Competent to carry out the operations in respect of the category of animal and (where appropriate) type of equipment for which a licence is sought without causing the animal avoidable pain, distress or suffering; and
- ii) Have sufficient knowledge of the provisions of all relevant legislation and guidance relating to that operation, category of animal and (where appropriate) type of equipment for which the licence is sought.

You will have to pay the fees as specified in: *“The Welfare of Animals at the Time of Killing (England) Regulations 2015, Chapter 3, Regulation 24.”*

## **Rifles**

A .22 or .17 rim-fire rifle can be used, preferably with a hollow-point bullet; but this should only be as a last resort, due to safety problems associated with the possible exiting of the bullet from the carcass.

## **Humane killers**

Humane killers are extremely dangerous and must only be used by experienced operators: usually veterinary surgeons, knackermen and hunt servants. These weapons discharge a round-nose, lead bullet which can over-penetrate (especially in smaller animals, such as calves), exit the carcass and ricochet up to a mile. Therefore, humane killers should not be used in enclosed spaces or on hardstandings.

When using a rifle or humane killer, it is imperative that the correct ammunition is used: failure to do so can result in unnecessary suffering for the animal and potential danger for the operator.

**IMPORTANT:**

**Operators of the aforementioned weapons must be in possession of a current Firearm Certificate (rifles and humane killers), or Shotgun Certificate (shotguns).**

**Correct shooting position**

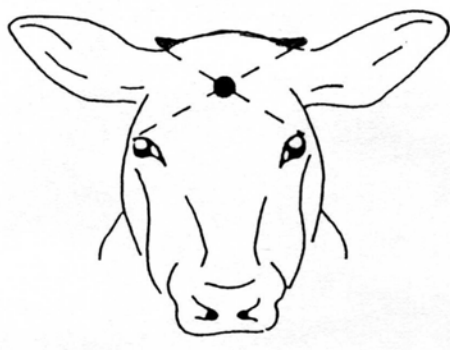
For safety's sake, prior to shooting, calves should ideally be situated on soft ground, preferably with a hay/straw stack or manure heap behind them. Whichever of the above weapons is chosen to kill the calf, the target area is the same:

**Step 1**

The target area is in the middle of the forehead, at the crossing point of two imaginary lines drawn from the middle of each eye to the opposite horn bud.

**Step 2**

The aim should be initially at right angles to the skull and then tilted slightly to direct the shot through the lower brain and into the higher reaches of the neck.



Step 1



Step 2

**IMPORTANT:**

**Except for the captive-bolt and some humane killers, firearms must NEVER be used in full contact with the target, but discharged between two and ten inches away.**

## **Carcase disposal**

Carcases should be sent for incineration or rendering – either directly, or via a knackery or hunt kennels. Carcasses can only be rendered at plants approved to render Specified Risk Material (SRM).

If the animal has a passport, then the person who last has possession of the live animal must return it. Depending on the circumstances, the options for carcase disposal vary:

- collection by, or delivery to, a knackery, hunt kennels or licensed incinerator, for safe disposal
- disposal on-farm (*The Animal By-Products Regulations 2005* and *The Specified Risk Material Regulations 2000*, and subsequent amendments will apply)

The only legal option now available for carcase disposal on-farm is incineration. Before installing an on-farm incinerator, checks will have to be made with Local Authorities, the Environment Agency and the Department for Environment, Food and Rural Affairs.

Under *The Animal By-Products Regulations 2005* the burial and open burning of carcasses such as fallen stock can only be permitted:

- in remote areas or
- during an outbreak of notifiable disease if there is a lack of capacity at rendering plants and incinerators, or because transport would spread the disease

'Remote' areas are interpreted as being parts of the Highlands and Islands of Scotland, the Scilly Isles and Lundy Island. The basic principle is that burial and burning should only be permitted where the carcase is more than 100 km away from the collection centre and the stocking density is very low. Before burying carcasses, first check with your Divisional Veterinary Office that you are in an official remote area.

**IMPORTANT:  
FAILURE TO COMPLY WITH CURRENT LEGISLATION COULD RESULT IN  
PROSECUTION. DO NOT BURY CARCASES IN MANURE HEAPS!**

For enquires about practical training in the correct use and maintenance of firearms and captive-bolt equipment, please contact the HSA at the address below.

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**DISCLAIMER OF LIABILITY**

**In no circumstances can the HSA accept liability for the way in which the equipment in this leaflet is used: or for any loss, damage, death or injury caused thereby, since this depends on circumstance wholly outside the HSA's control**

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## **Further reading**

Humane Killing of Livestock Using Firearms (2nd Edition)  
HSA 2005

Captive-Bolt Stunning of Livestock (5th Edition)  
HSA 2014

Casualty Slaughter  
BCVA 1996

The Welfare of Animals at the Time of Killing (England) Regulations 2015  
Defra 2015

The Welfare of Animals at the Time of Killing (Scotland) Regulations 2012  
Scottish Ministers 2012

The Welfare of Animals at the Time of Killing (Wales) Regulations 2014  
Welsh Ministers 2014

The Welfare of Animals at the Time of Killing (Northern Ireland) Regulations 2014  
DARD 2014

The Animal By-Products Regulations  
Defra 2005

The Specified Risk Material Regulations  
Defra 2000

Full details of all legislation can be found on the following website, [www.tso.co.uk](http://www.tso.co.uk)