

# HOR001 GROUND SHOOTING OF FERAL HORSES

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## Background

Feral horses (*Equus caballus*) can cause significant environmental damage and losses to rural industries. Although considered a pest, feral horses are also a resource, providing products such as pet meat for the domestic market and meat for human consumption for the export market. Control methods include capture (by trapping, mustering or roping), exclusion fencing, ground shooting and shooting from helicopters.

Ground shooting is best suited to accessible and relatively flat areas where there are low numbers of problem horses. It is also used for euthanasia of sick or injured horses. It involves the shooter approaching a group of horses on foot with the intention of culling all the animals in the group. Shooting from a helicopter is considered a more humane control method as mobile wounded animals can be promptly located and killed. It is also a more effective method of quickly reducing feral horse populations. Refer to *HOR002 Aerial shooting of feral horses*.

Shooting can be a humane method of destroying feral horses when it is carried out by experienced, skilled shooters; the animal can be clearly seen and is within range; and, the correct firearm, ammunition and shot placement is used.

This standard operating procedure (SOP) is a guide only; it does not replace or override the legislation that applies in the relevant State or Territory jurisdiction. The SOP should only be used subject to the applicable legal requirements (including OH&S) operating in the relevant jurisdiction.

## Application

- Shooting should only be used in a strategic manner as part of a co-ordinated program designed to achieve sustained effective control.
- Ground shooting is time consuming and labour intensive, and is therefore not considered an effective method for large-scale control.
- Ground shooting as a means of population control is not suitable in inaccessible, wooded or rough terrain where sighting of target animals and accurate shooting is difficult or when wounded animals cannot easily be followed up and killed.
- The optimal period for ground shooting is during dry seasons or droughts when many groups of horses are forced to congregate around areas with limited access to water and feed. Shooting during drought reduces the number of horses that would otherwise die slowly of hunger or thirst.
- Sporadic shooting from the ground may teach horses to avoid certain areas, making overall control difficult.

- Shooting of feral horses should only be performed by skilled operators who have the necessary experience with firearms and who hold the appropriate licences and accreditation.
- Storage and transportation of firearms and ammunition must comply with relevant legislative requirements.

## **Animal Welfare Considerations**

### **Impact on target animals**

- The humaneness of shooting as a control technique depends almost entirely on the skill and judgement of the shooter. If properly carried out, it can be a humane method of destroying feral horses. On the other hand, if inexpertly carried out, shooting can result in wounding which may cause considerable pain and suffering.
- Shooting must be conducted with the appropriate firearms and ammunition and in a manner which aims to cause immediate insensibility and painless death.
- Shooters should not shoot at an animal unless it is clearly visible and they are confident of killing it with a single shot.
- Only head (brain) or chest (heart-lung) shots must be used. Shots to the head are preferred over chest shots as they are more likely to cause instantaneous loss of consciousness. Chest shots do not render the animals instantaneously insensible and are likely to result in a higher incidence of wounding. Shooting at other parts of the body is unacceptable.
- Group flight response is a limiting factor for humane and instantaneous killing of horses.
- If possible, all horses in a group should be killed before any further groups are targeted.
- Wounded horses must be located and killed as quickly and humanely as possible with a second shot preferably directed to the head. If left, wounded animals can escape and suffer from pain and the disabling effects of the injury.
- Culling programs should be timed to minimise the risk of orphaning dependent foals or causing abortion when females are in late pregnancy.
- If lactating females are inadvertently shot, efforts should be made to find dependent young and kill them quickly and humanely with a shot to the brain.
- Dogs should not be involved in any phase of horse culling programs. Horses are easily distressed and frightened by dogs and may injure themselves by running into fences and other obstacles.

### **Impact on non-target animals**

- Shooting is relatively target specific and does not usually impact on other species. However, there is always a risk of injuring or killing non-target animals, including livestock, if shots are taken only at movement, colour, shape, or sound. Only shoot at the target animal once it has been positively identified and never shoot over the top of hills or ridges.

## **Health and Safety Considerations**

- All participants in the culling program should stand well behind the shooter when an animal is being shot. The line of fire must be chosen to prevent accidents or injury from stray bullets or ricochets.
- Firearm users must strictly observe all relevant safety guidelines relating to firearm ownership, possession and use.
- Firearms must be securely stored in a compartment that meets state legal requirements. Ammunition must be stored in a locked container separate from firearms.
- Adequate hearing protection should be worn by the shooter and others in the immediate vicinity of the shooter. Repeated exposure to firearm noise can cause irreversible hearing damage.
- Safety glasses are recommended to protect the eyes from gases, metal fragments and other particles.
- Care must be taken when handling feral horse carcasses as they may carry diseases such as melioidosis, ringworm and dermatophilosis that can affect humans and other animals. Routinely wash hands and other skin surfaces after handling carcasses. Carcasses can be heavy, so care must be taken when lifting/dragging.

## Equipment Required

### Firearms and ammunition

- Large calibre, high powered, centre-fire, bolt action or semi-automatic rifles (at least equal to .308 performance), fitted with a telescopic sight should be used. Hollow-point or soft-nosed ammunition, minimum 165 grain, should be used.
- Shotguns are NOT recommended for use on feral horses. If they must be used in an emergency situation, rifled slugs are to be used as ammunition
- The accuracy and precision of firearms should be tested against inanimate targets prior to the commencement of any shooting operation.

### Other equipment:

- Lockable firearm box
- Lockable ammunition box
- Personal protective equipment (hearing and eye protection)
- First Aid kit
- Appropriate maps identifying access trails and land tenure

## Procedures

- Horses must NOT be shot from a moving vehicle or other moving platform as this can significantly detract from the shooters' accuracy.
- Ensure you are in a firm, safe and stable position before taking a shot.
- The objective is to fire at the closest range practicable in order to reduce the risk of non-lethal wounding. Accuracy with a single shot is important to achieve an immediate and, therefore, humane death.
- A horse should only be shot at when:
  - It is stationary and can be clearly seen and recognised;

- It is within the effective range of the firearm and ammunition being used; and
- A humane kill is probable. If in doubt, do NOT shoot.
- Ensure there are no other horses behind the target animal that may be wounded by the shot passing through the target.
- Although horses are large animals, the vital areas targeted for clean killing are small. Shooters should be adequately skilled i.e. be able to consistently shoot a group of not less than 3 shots within a 10cm target at 100 metres. Shooters should also be able to accurately judge distance, wind direction and speed and have thorough knowledge of the firearm and ammunition being used.
- The shooter must aim either at the head, to destroy the major centres at the back of the brain near the spinal cord or, at the chest, to destroy the heart, lungs and great blood vessels. This can be achieved by one of the following methods (*see diagrams in Appendix*):

#### Head Shots

##### *Frontal position (front view)*

The firearm should be directed at the point of intersection of diagonal lines taken from the base of each ear to the opposite eye. The bullet should be directed horizontally.

##### *Temporal position (side view)*

The horse is shot from the side so that the bullet enters the skull midway between the eye and the base of the ear. The bullet should be directed horizontally.

#### Chest Shot

##### *Side view*

The firearm is aimed horizontally at the centre of a line encircling the minimum girth of the animal's chest, immediately behind the forelegs. The shot should be taken slightly behind and below the shoulder at the point immediately behind the elbow.

- Shooting of individuals should stop when the flight response of the herd limits further accurate shooting.
- Stallions should be shot first. This tends to confuse the remaining horses, slows their retreat and increases the chances of culling them.
- The target animals in a group should be checked to ensure they are dead before moving on to the next group of animals. *Always approach the animal from the dorsal (or spinal) side to prevent injury from kicking legs.* Death of shot animals can be confirmed by observing the following:
  - Absence of rhythmic, respiratory movements;
  - Absence of eye protection reflex (corneal reflex) or 'blink';
  - A fixed, glazed expression in the eyes; and
  - Loss of colour in mucous membranes (become mottled and pale without refill after pressure is applied).

If death cannot be verified, a second shot to the head should be taken immediately.

## Further Information

Contact the relevant Commonwealth, State or Territory government agency from the following list of websites:

Commonwealth	Department of Environment and Heritage <a href="http://www.deh.gov.au/">http://www.deh.gov.au/</a>
ACT	Environment ACT <a href="http://www.environment.act.gov.au/">http://www.environment.act.gov.au/</a>
NSW	NSW Agriculture <a href="http://www.agric.nsw.gov.au">www.agric.nsw.gov.au</a>
NT	Parks & Wildlife Commission <a href="http://www.nt.gov.au/ipe/pwcnt/">www.nt.gov.au/ipe/pwcnt/</a>
QLD	Department of Natural Resources and Mines <a href="http://www.nrm.qld.gov.au">www.nrm.qld.gov.au</a>
SA	Animal & Plant Control Commission <a href="http://sustainableresources.pir.sa.gov.au">http://sustainableresources.pir.sa.gov.au</a>
TAS	Department of Primary Industries, Water & Environment <a href="http://www.dpiwe.tas.gov.au">www.dpiwe.tas.gov.au</a>
VIC	Department of Primary Industries, Agriculture & Food <a href="http://www.dpi.vic.gov.au">www.dpi.vic.gov.au</a>
WA	Agriculture WA <a href="http://www.agric.wa.gov.au">www.agric.wa.gov.au</a>

### Disclaimer

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<http://www.nationalparks.nsw.gov.au/npws.nsf/Content/English+Reports+on+feral+horse+management+in+national+parks+and+reserves>
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Recommended shot placements - Feral horse

Diagram 1

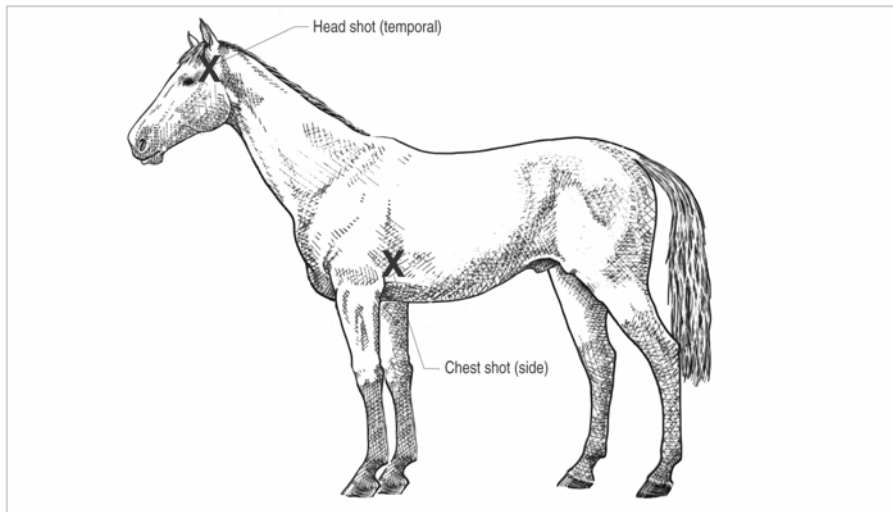


Diagram 2 - Side view (skeleton)

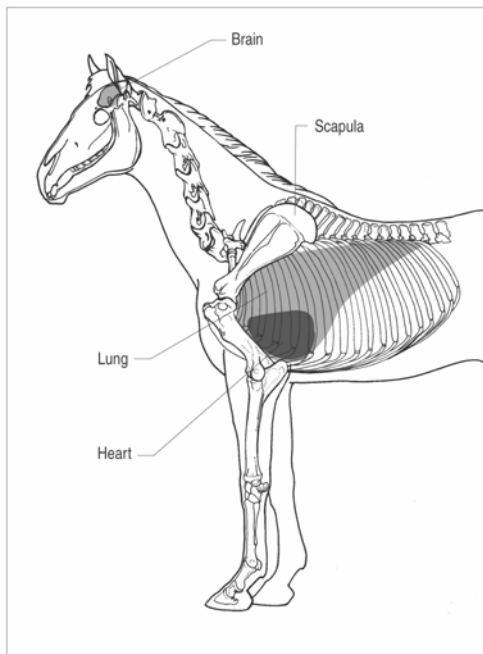


Diagram 3 - Head shot (frontal)

