STANDARD OPERATING PROCEDURE

DOG003 ground shooting of **wild dogs**

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Background

Wild dogs, which include feral domestic dogs, dingoes and their hybrids, prey on livestock causing significant impact on agricultural production. Methods of control include poisoning, trapping, shooting, exclusion fencing, aversion and use of livestock guarding animals.

Shooting of wild dogs is undertaken by government vertebrate pest control officers, landholders and professional or experienced amateur shooters. Shooting is usually an opportunistic method of control although it can be used to target specific problem animals. It is labour intensive and considered an ineffective technique to reduce populations of wild dogs over extensive areas. Shooting is usually done during the day but can also be conducted at night with the aid of a spotlight. Organised wild dog drives using a line of beaters to flush dogs into a line of guns are sometimes used.

Shooting is a humane method of destroying wild dogs when it is carried out by experienced, skilled and responsible 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.
- Shooting is often used as a reactive control measure in response to stock losses or where other methods have failed. It may be useful in controlling individual problem dogs, however, it is time-consuming and labour intensive and therefore an inefficient method for large-scale wild dog control in Australia.
- Shooting is not suitable where dense cover is available for wild dogs or in the vicinity of human habitation.
- Shooting of wild dogs 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 is one of the most humane methods of destroying wild dogs. 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.
- When shooting an animal, it must be clearly visible and able to be killed 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.
- The shooter must be certain that each animal is dead before another is targeted.
- Wounded dogs must be located and dispatched 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.
- It is preferable not to shoot females that are obviously lactating. If possible, the female should be followed back to the den where the pups as well as the female can be killed. Caves, rock piles, hollow logs, enlarged rabbit, goanna or wombat burrows or similar sheltered sites are used as whelping dens. These are often found in elevated positions close to water.
- If lactating bitches are inadvertently shot, efforts should be made to find dependent pups and kill them quickly and humanely.

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 at movement, colour, shape, sound or, when spotlighting, eye reflection ('eye shine'). Only shoot at the target animal once it has been positively identified and never shoot over the top of hills or ridges as other animals or people may be out of sight beyond the hill in the danger zone.
- Shooting should be used with caution around lambing paddocks as it may disturb the lambing flock and cause mismothering. Also avoid paddocks containing sensitive livestock e.g. horses, deer. They are easily frightened by spotlights and gunshots and may injure themselves by running into fences and other obstacles.

Health and Safety Considerations

- Firearms are hazardous. All people 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.
- Shooting from a vehicle is potentially dangerous. An agreed safety procedure between the shooter and others in the vehicle must be in place to ensure that people do not enter the field of fire or disturb the taking of a shot.
- 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.
- Warm, comfortable clothing and stout footwear is recommended, especially when shooting at night
- Care must be taken when handling wild dog carcasses as they may carry diseases such as hydatidosis and sarcoptic mange that can affect humans and other animals. A dog with obvious mange should only be handled while wearing gloves. Routinely wash hands after handling all wild dog carcasses.

Equipment Required

Firearms and ammunition

- Small bore, high velocity, centre fire rifles fitted with a telescopic sight are preferred e.g. .22–250, .22 Hornet, .222 Remington, .223 or .243 Winchester. Hollow-point or soft-nosed ammunition should always be used.
- Rimfire weapons with lower muzzle energy are not recommended because of the greater risk of non-lethal wounding.
- 12-gauge shotguns with heavy shot sizes of No. 2, SSG, BB or AAA may be effective, but only up to a distance of 20 metres from the target animal.
- The accuracy and precision of firearms should be tested against inanimate targets prior to the commencement of any shooting operation.

Other equipment:

- If shooting at night, a handheld spotlight (at least 100 watt), or a helmet or headband mounted 12 volt (35 watt) spotlight
- First Aid kit
- Lockable firearm box
- Lockable ammunition box
- Personal protective equipment (hearing and eye protection)

Procedures

Shooting in the day

- Peak wild dog activity occurs at dawn and dusk with some activity during the night. Most shooting is done during daylight hours.
- Wild dogs are especially wary of people and are seldom seen during the day. To lure them within shooting range, howling calls or some other type of lure are often used.
- Daylight drives can sometimes be effective, but are rarely undertaken. These involve the use of unarmed beaters to drive wild dogs into a line of people waiting with firearms. This method requires the use of many people and only small areas can be covered.
- Wild dog drives may flush out a range of species, so there is a greater risk of encountering and shooting non-target animals.

Shooting at night

- Shooting of wild dogs can also be done at night, usually from a vehicle with the aid of a spotlight.
- It is recommended that during daylight hours shooters familiarise themselves with the terrain they are to cover. Take note of potential hazards and also any landmarks that may help with navigation.
- Wild dogs must NOT be shot from a moving vehicle or other moving platform. Ensure you are in a firm, safe and stable position before taking a shot.
- Shooting over the top of hills or ridges produces unacceptable risk. Be aware that the spotlight only illuminates a small portion of the danger zone and only a fraction of the projectile's range.
- When illuminated by the spotlight, wild dogs have a blue/green eye reflection or shine.

Target animal and point of aim

- 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 wild dog should only be shot at when:
  - It 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.
- 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 Shot (this is the preferred point of aim)

  Frontal position (front view)
  The firearm is aimed at a point midway between the level of the eyes and the base of the ears, but slightly off to one side so as to miss the bony ridge that runs down the middle of the skull. The aim should be slightly across the centreline of the skull and towards the spine.

Temporal position (side view)
The firearm is aimed horizontally at the side of the head at a point midway between the eye and the base of the ear.

Chest Shot

Side view
The firearm is aimed horizontally at the centre of a line encircling the minimum girth of the animal, immediately behind the forelegs. The shot should be taken slightly to the rear of the shoulder blade (scapula). This angle is taken because the scapula provides partial protection of the heart from a direct side-on shot.

- When using a rifle, the target animal must be stationary and within a range that permits accurate placement of the shot. Shots to the head are preferred over chest shots.
- When using a shotgun, the target animal may be stationary or mobile, but must be no more than 20 metres from the shooter. The pattern of shot should be centred on the head or chest. It is essential that the distance to the target animal is accurately judged. To achieve adequate penetration of shot, the animal must be in range. It is recommended that shooters practice estimating distances before a shooting operation.
- The target animal should be checked to ensure it is dead before moving on to the next animal. Death of shot animals should always be confirmed by observing at least 3 of 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 http://www.deh.gov.au/
ACT	Environment ACT http://www.environment.act.gov.au/
NSW	NSW Department of Primary Industries www.dpi.nsw.gov.au
NT	Parks & Wildlife Commission www.nt.gov.au/ipe/pwcnt/
QLD	Department of Natural Resources and Mines www.nrm.qld.gov.au
SA	Animal & Plant Control Commission http://sustainableresources.pir.sa.gov.au
TAS	Department of Primary Industries, Water & Environment www.dpiwe.tas.gov.au
VIC	Department of Primary Industries, Agriculture & Food www.dpi.vic.gov.au
WA	Agriculture WA www.agric.wa.gov.au

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Appendix

Recommended shot placements - Wild dog

Diagram 1

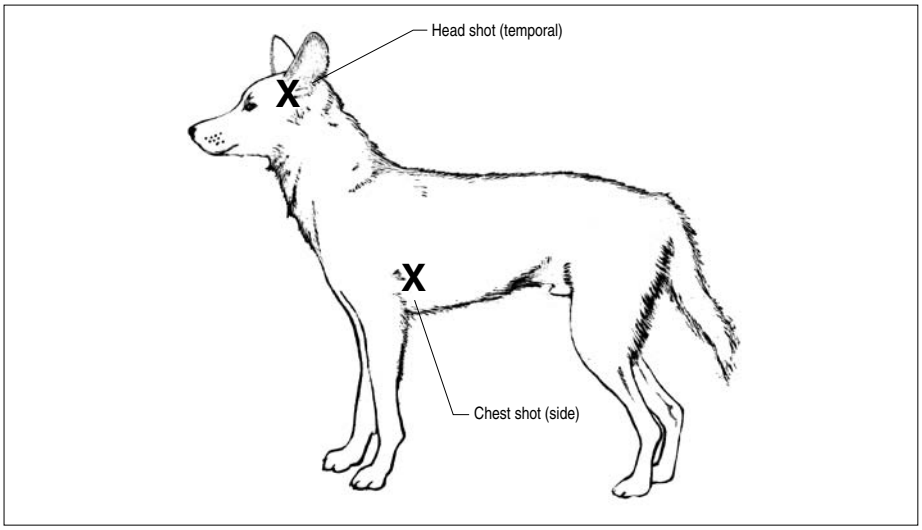

Diagram 2 - Side view (skeleton)

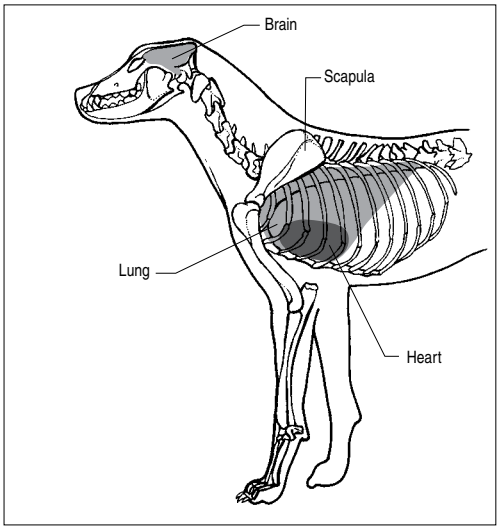

Diagram 3 - Head shot (frontal)

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