

DOG001 TRAPPING OF WILD DOGS USING PADDED - JAW TRAPS

Prepared by Trudy Sharp & Glen Saunders, NSW Department of Primary Industries

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 with sodium monofluoroacetate (1080), trapping, shooting, exclusion fencing, aversion and use of livestock guarding animals.

Trapping of wild dogs is often used where poison baiting is less effective, for example, in or around lambing paddocks where there is abundant food. Trapping is useful for targeting individual problem animals, or as a follow-up after 1080 baiting programs, but is regarded as an inefficient method for general population control.

Padded leg-hold traps are used to reduce the incidence and severity of foot injuries sustained by dogs. Traps are inspected daily and caught dogs are shot whilst still held by the trap. If the traps cannot be serviced daily, the trap-jaws are bound with strychnine-laced cloths to hasten death and prevent prolonged suffering.

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

- Trapping is time-consuming and labour-intensive and is therefore best suited for control of small populations or problem individuals.
- Traps have the potential to cause significant suffering and distress so should only be used when there is no suitable alternative.
- Humane and successful trapping requires extensive training and experience. Trapping by inexperienced operators can result in 'trap-shy' dogs that are difficult to catch because they have previously escaped from a carelessly prepared and presented trap.
- Selection of appropriate traps and trap sites is important to reduce the risk of capturing of non-target animals, and to minimise the pain and distress experienced by trapped animals.
- Every effort must be made to avoid animal deaths from factors such as exposure, shock, capture myopathy and predation.
- Once trapped, wild dogs are euthanased by shooting at the site of capture.
- Traps must be used in accordance with relevant State and Territory legislation (*see Appendix 1*). In some States for example, Western Australia, a permit may be required to trap within certain municipalities.
- Shooting of wild dogs in traps 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 legislation requirements.

- If traps cannot be checked every day, strychnine cloths must be attached to the jaws of the trap to bring about a relatively quick death.
 - Strychnine is listed as a Schedule 7 substance, a restricted chemical product which requires special precautions in manufacture, handling, storage and use, along with individual regulations regarding labelling or availability.
 - Only authorised officers, usually employees of government or statutory agencies are allowed to obtain, handle, prepare and supply strychnine.
 - Use of strychnine for wild dog control can only be carried out under conditions set down in a specific permit issued by the Australian Pesticides & Veterinary Medicines Authority (APVMA) under Commonwealth legislation (*Agricultural and Veterinary Chemicals Code Act 1994*). Strychnine must also be used in accordance with relevant State and Territory legislation. *See Appendix 2.*

Animal Welfare Considerations

Impact on target animals

- Leg-hold traps cause pain and distress in two ways; pressure of the trap jaws on the captured limb and restraint of the animal. Injuries will inevitably occur to some animals, especially when they struggle to escape the trap. These range from swelling of the foot and lacerations to dislocations and fractures. Wild dogs may also inflict injuries to their feet and legs by chewing on the captured limb, and to their teeth, lips and gums by gnawing at the trap jaws. To reduce capture distress, trapped dogs must be destroyed humanely and as quickly as possible.
- It is preferable to set traps at sites where vegetation can provide shade and shelter. However, sites should be avoided where there is a risk of the trapped animal becoming entangled in understorey vegetation or fences, which could result in dislocation of the limb.
- Captured animals must be approached carefully and quietly to reduce panic, further stress and risk of injury.
- To minimise the animal welfare implications of leaving dependent pups to die a slow death from starvation it is preferable not to undertake trapping when females are whelping i.e. June to August in temperate areas.
- If lactating bitches are caught in a trap, efforts should be made to find dependent pups and kill them quickly and humanely with a shot to the brain.
- Traps should be inspected daily. In remote and extensive areas where this may not be possible, strychnine cloths must be used. Trapped wild dogs will try to escape by gnawing on the trap jaws covered with the strychnine cloths. Ingestion of strychnine will bring about a relatively quick, although painful and distressing, death rather than a prolonged death from exposure, dehydration and/or stress.
 - Strychnine is a fast acting poison that is highly toxic to most animals. The minimal lethal dose in the dog is approximately 0.75mg per kg body weight. Typical signs of poisoning include restlessness, nervousness, apprehension and stiffness with muscular twitching that

progress to severe tetanic seizures. Violent muscular spasms extend the limbs and curve the neck upwards and backwards; the jaws fix and the eyes protrude. Respiration may stop momentarily during seizures. Frequency of seizures increases and death eventually occurs 1 to 2 hours after ingestion due to exhaustion or asphyxiation (respiratory failure) during a seizure. Death may take up to 24 hours if the dose of strychnine is low. It is very likely that animals suffer extreme pain during the periods of muscular spasm. Poisoned animals remain fully conscious until near death.

Impact on non-target animals

- Traps are not target specific, so a wide range of non-target species may be caught. These can include birds (eg. ravens, magpies, pied currawongs), kangaroos, wallabies, rabbits, hares, echidnas, goannas, wombats, possums, bandicoots, quolls and sheep. If there is a high risk of trapping non-target animals, traps should not be set.
- Different groups of non-target animals suffer different levels of injury and distress. For example:
 - Wallabies often experience serious injuries eg. dislocations, due to the morphology of their limbs and because they become very agitated when restrained.
 - Goannas eg. Lace monitors also suffer from dislocations and can die from hyperthermia.
 - Birds, rabbits and hares can be preyed upon by foxes, cats and wild dogs while caught in traps.
- Traps must not be set near areas such as waterholes or gully crossings that are regularly frequented by non-target species. Animal tracks and pads or holes in fences should also be avoided.
- If scavenging birds or goannas are known to frequent the area, food baits should not be used.
- Species other than canids may not gnaw at the jaws of the trap and so will be unlikely to be poisoned by contact with strychnine cloths. If the trap is not checked for many days they will suffer for a prolonged period, dying from thirst, exposure and/or stress.
- Live non-target animals caught in traps must be examined for injuries and signs of illness or distress and dealt with as follows:
 - Animals which are unharmed or have only received minimal injuries such as minor cuts or abrasions should be immediately released at the site of capture.
 - Animals which have more severe injuries or which are suffering from thermal stress should receive appropriate attention. An animal suffering from thermal stress can initially be placed in a suitable quiet holding area which provides warmth or shade to allow recovery before release. Animals with treatable injuries that cannot be immediately released or those failing to recover from thermal stress should be presented to a veterinarian or a registered wildlife carer for treatment.
 - Animals that have injuries which are untreatable or which would compromise their survival in the wild should be euthanased using a technique that is suitable for the species. For more information on euthanasia techniques refer to ***GEN001 Methods of Euthanasia***.

- If a domestic pet is caught, it should be taken to the nearest animal shelter, council pound or veterinarian where it can be scanned for a microchip and the owner contacted, or assessed for suitability of re-homing.
- If foxes or feral cats are caught in the trap they must be euthanased quickly and humanely by a shot to the brain using an appropriate firearm.

Health and Safety Considerations

- Firearms are hazardous. All people should stand well behind the shooter when a dog is being shot. The line of fire must be chosen to prevent accidents or injury from stray bullets or ricochets.
- 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.
- Operators should be wary of the risks of injury when placing and setting traps. Protective clothing, boots and leather gloves may help prevent injuries from shovels, hammers and trap jaws.
- Strychnine is highly toxic to humans and should be handled with care.
 - Operators using strychnine must strictly follow the directions on the approved label when preparing for use, using, storing or disposing of the pesticide.
 - Appropriate personal protective equipment, including elbow length PVC or nitrile gloves and a face mask or safety glasses, must be worn when preparing and handling poison and cloths.
 - If strychnine gets on skin, immediately wash area with soap and water.
 - After use and before eating drinking or smoking, wash hands, arms and face with soap and water. Wash contaminated clothing and gloves.
 - If poisoning occurs, contact a doctor or the Poisons Information Centre (Ph 13 11 26). If poison is swallowed give activated charcoal and keep patient in a quiet dark place.
 - For further information on strychnine refer to the Material Safety Data Sheet (MSDS), available from the supplier.

Equipment Required

Traps

- Approved padded-jaw traps suitable for catching wild dogs must be used eg. Padded Lanes dingo trap or Victor Soft-Catch® trap no. 3. It is illegal to use steel-jawed traps in most states and they are not recommended for use in any circumstances on animal welfare grounds.
- Traps must have the following characteristics:
 - The jaws have no teeth.
 - The jaws are offset to increase the space between them when closed. (ie. a distance of 6-8mm remains when the jaws are closed).
 - Each jaw has a rubber-like pad to cushion the impact of the jaws on the limb and to prevent the limb sliding out. The padding fills the offset gap when the jaws are closed.

- Traps should also have:
 - A spring placed in the anchor chain to act as a shock absorber, reducing the chance of dislocation of the captured limb. Swivels are located on both ends of the anchor chain allowing the trap to twist as the animal struggles to escape.
 - Adjustable pan tension so that a certain minimum force is required to depress the pan and trigger the trap. This minimises the chance of smaller non-target animals setting off the trap.

Lures

- Olfactory stimuli such as dog faeces and/or urine, or a commercially prepared lure eg. synthetic fermented egg are used to lure wild dogs into the trap set.
- The attractiveness of lures will vary with season and location.

Meat baits

- A handful of meat bait eg. beef, rabbit, lamb, chicken, and kangaroo can also be placed near the trap.
- Attractiveness and palatability of the bait will vary with season and location.

Firearms and ammunition

- Smaller calibre rifles such as a .22 rimfire or .22 magnum rimfire with hollow/soft point ammunition are recommended for euthanasia.
- 12 gauge shotguns with shot sizes of BB or AAA may also be used.

Procedures

Users of strychnine must always refer to the relevant Commonwealth, State and Territory legislation for more detailed and up-to-date information.

Notification and warning signs when using strychnine

- If required, appropriate notification of strychnine use must be given to adjoining landholders.
- Warning signs may need to be displayed near main entrances and in close proximity to the traps.
- For specific details refer to the relevant permit issued by the Australian Pesticides & Veterinary Medicines Authority (APVMA).

Strychnine application (only if required)

- Two methods are used to apply strychnine to the jaws of the trap. Cloths soaked in strychnine hydrochloride solution are used in NSW, whilst hessian impregnated with strychnine alkaloid crystals are used in SA, WA and QLD. Refer to relevant permit for more details.

Gloves and eye protection must be worn when handling strychnine.

- **Cloths soaked in strychnine solution**
 - Approximately 1 gram of strychnine is applied to a piece of cloth (approximate size 300 x 40 mm) by soaking the cloth in a strychnine solution.

- To prepare the solution, dissolve the entire contents of one 25g bottle of strychnine hydrochloride in one litre of water. This solution (2.5% W/V) is then used to prepare twenty five cloths.
 - Soak the cloths in the strychnine solution, then remove and lay out to dry in a safe and secure area.
 - Cloths are wrapped around both jaws of the trap and fastened by soft wire or string.
 - Unused strychnine solution must be disposed of by deep burial. Containers used for the preparation of cloths should be clearly identified and kept exclusively for that purpose.
- **Hessian impregnated with strychnine alkaloid crystals**
 - Wrap a piece of hessian or similar material (approximate size 50mm wide x 250 mm long) around one jaw twice.
 - Place ¼ to ½ gram of strychnine crystals in the centre of the hessian on the upper face of the jaw. Continue wrapping the hessian around the jaw to achieve a ‘bandage’ around four layers thick.
 - Secure the hessian at each end of the jaw using soft wire.
 - Strychnine is applied only to the jaw held by the trap mechanism (trap dog) not the ‘free’ jaw. A caught dog is most likely to bite at the jaw directly in front and on each side of its trapped foot.

Selection of trap sites

- Traps should be set where the dog is most likely to find and investigate the unfamiliar lure odour eg. beside regularly used boundary pads, near scent pads and around scratch points. Do not set traps near fences and other objects such as trees, bushes etc. in which the trapped dog may become entangled.
- The location of all trap sites must be accurately recorded and marked. This information should be readily available to others in case the trapper is unable to return to check traps.

Setting of traps

- It is preferable to set traps at the end of each day and check them each morning.
- Test that the trap is functioning properly before setting.
- Traps should only be anchored to stakes or fixed objects if there is a shock absorbing device such as a spring fitted to the anchor chain and a swivel attaching the chain to the trap. It is recommended to use a short length of chain (approx. 50 cm). Alternatively the trap can be tied to ‘drags’, objects such as rocks, solid pieces of steel or small logs that will move when the dog pulls against the trap.
- Set the trap and place into position in the hole in the ground. Ensure that surrounding shrubs or debris will not interfere with the spring mechanism.
- Camouflage the area around the trap with leaves, grass debris etc. but leave a slightly cleared area (10-15cm) over the area of the plate.
- Place the lure on a slightly elevated clump of grass, stick or rock behind the trap. The distance from the plate of the trap to the decoy is critical and should be 45-50 cm, roughly equivalent to the distance between a dog’s front feet and his nose when leaning forward to smell.

Shooting of wild dogs

- Trapped live dogs should be euthanased by shooting whilst still held by the trap.
- Unnecessary people should keep away from the area to allow the dog to become less agitated. The shooter should approach the animal in a calm and quiet manner.
- To maximise the impact of the shot and to minimise the risk of misdirection the range should be as short as possible eg. 5-20 cm from the head if using a rifle, 1–2 metres if using a shotgun.
- Never fire when the dog is moving its head, be patient and wait until the dog is motionless before shooting. Accuracy is important to achieve a humane death. One shot should ensure instantaneous loss of consciousness and rapid death without resumption of consciousness.
- Shots must be aimed to destroy the major centres at the back of the brain near the spinal cord. This can be achieved by one of the following methods (*see diagrams in Appendix 3*):

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.

- Death of shot animals should always 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.

Disposal of poisoned animals and used strychnine cloths

- If strychnine has been used, the carcasses of dead animals must be disposed of by burning or deep burial. All dead animals found at the trap site and adjacent areas must be disposed of in this manner during the trapping period and for 14 days after.
- Used strychnine cloths must be recovered and disposed of by burning. The ashes must be buried to a depth of 0.5 metres in a dry site at least 10 metres from any watercourse. Strychnine containers and unused strychnine must also be disposed of using this method.
- Refer to conditions of specific permit for more details.

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 Agriculture www.agric.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

Disclaimer

The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of the Commonwealth and New South Wales Governments or the Commonwealth Minister for the Environment and Heritage and the New South Wales Minister for Primary Industries respectively. While reasonable efforts have been made to ensure that the contents of this publication are factually correct, the Commonwealth and New South Wales do not accept responsibility for the accuracy or completeness of the contents, and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this publication.



Natural Heritage Trust

Helping Communities Helping Australia

An Australian Government Initiative

References

- Allen, L. (1983). Wild dog ecology and control. Rural Lands Protection Board, Queensland.
- Anon. (1997). Vertebrate Pesticide Manual: A Guide to the use of vertebrate pesticide in Queensland. Department of Resources, Queensland.
- Anon. (2002). NRM facts. Wild dog control. Department of Natural Resources and Mines, Queensland.
- Anon. (2004). Vertebrate Pest Control Manual. Agricultural Protection Program. NSW Agriculture.
- Bogges, E. K. et al. (1990). Traps, trapping and furbearer management: A review. The Wildlife Society. Technical Review 90-1. 31pp.
- Eason, C. T. and Wickstrom, M. (2001). Vertebrate Pesticide Toxicology Manual (Poisons): Information on poisons used as vertebrate pesticides. Technical Series 23. Department of Conservation, Wellington, New Zealand.
- Fleming, P.J.S., Allen, L.R., Berghout, M.J., Meek, P.D., Pavlov, P.M., Stevens, P., Strong, K., Thompson, J.A. and Thomson, P.C. (1998). The performance of wild-canid traps in Australia: efficiency, selectivity and trap-related injuries. *Wildlife Research*, **25**: 327-338.
- Fleming, P., Corbett, L. Harden, R. and Thomson, P. (2001). *Managing the impacts of dingoes and other wild dogs*. Bureau of Rural Sciences, Canberra.
- IAFWA (2003). Best Management Practices for Trapping Coyotes in the Eastern United States. International Association of Fish and Wildlife Agencies. Document available electronically from the IAFWA, Furbearer Resources Technical Workgroup website:
<http://www.furbearermgmt.org/03ecbmp.pdf>
- Kahn, C. M. (ed.) (2003). The Merck Veterinary Manual, 8th edition. (Online version). Merck and Co., Whitehouse Station, New Jersey.
<http://www.merckvetmanual.com/mvm/index.jsp>
- Rafferty, D. (2003). Farmnote no. 33/2003. Guide to the safe use of strychnine for jawed traps. Department of Agriculture. Bunbury, Western Australia.
- Thomson, P. (2003). Farmnote no. 29/2002. Wild dog control. Department of Agriculture. Forrestfield, Western Australia.
- Thomson, P. (2003). Wild dog control: Facts behind the strategies. Department of Agriculture. South Perth, Western Australia.

UFAW (1988). Humane killing of animals. 4th edition. Universities Federation for Animal Welfare, Potters Bar, England.

Appendix 1: Relevant State and Territory animal welfare and related legislation relevant to the use of traps

- **New South Wales**
Prevention of Cruelty to Animals Act 1979
Use of steel-jaw traps is prohibited. Trapping with padded-jaw traps, cage traps and treadle snares is permitted.
- **Queensland**
Animal Care and Protection Act 2001
Steel-jaw traps are *not* prohibited traps.
- **Australian Capital Territory**
Animal Welfare Act 1992
Use of steel-jaw traps is prohibited. Trapping with padded-jaw traps, cage traps and treadle snares is permitted.
- **Northern Territory**
Animal Welfare Act 2000
Use of steel-jaw traps is prohibited. Trapping with padded-jaw traps is permitted.
- **Tasmania**
Animal Welfare Act 1993
Leg-hold traps and snares are prohibited.
- **South Australia**
Prevention of Cruelty to Animals Act 1985
Small steel-jaw traps are prohibited. Large steel-jaw traps are prohibited in most areas except for wild dog control along the dingo fence and for research purposes. The large steel-jaw traps are required to be bound with cloth soaked strychnine or modified.
- **Victoria**
Prevention of Cruelty to Animals Act 1986
Large steel-jaw traps and neck snares are prohibited, with exceptions for wild dog control in some areas. Snares and padded-jaw traps are permitted, and small steel-jaw traps are permitted for rabbit control.
- **Western Australia**
Animal Welfare Act 2002
Agriculture and Related Resources Protection (Traps) Regulations 1982
Steel-jaw traps are permitted for wild dog control. The jaws must be bound with a cloth soaked in strychnine. Only padded steel jawed traps are permitted for fox control and use in research programs. Permits are required to set traps in metropolitan areas. Neck snares are illegal.

Appendix 2: Relevant Commonwealth, State and Territory Legislation for the use of strychnine

- **Commonwealth**
Environment Protection and Biodiversity Conservation Act 1999
Information available from the Department of Environment and Heritage website:
<http://www.deh.gov.au/epbc>
- **Australian Capital Territory**
Environment Protection Act 1997
- **New South Wales**
Pesticides Act 1999
- **Northern Territory**
Poison and Dangerous Drugs Act 1999
Territory Parks and Wildlife Conservation Act 1998
- **Queensland**
Health (Drugs and Poisons) Regulations 1996
- **South Australia**
Controlled Substances Act 1984
Controlled Substances (Poison) Regulations 1996
- **Tasmania**
Poisons Act 1971
Agricultural and Veterinary Chemicals (Control of Use) Act 1995
- **Victoria**
Agricultural and Veterinary Chemical (Control of Use) Act 1992
- **Western Australia**
Poisons Act 1964
Poisons Regulations 1965

Appendix 3: Recommended aiming points for shooting

Recommended shot placements - Wild dog

Diagram 1

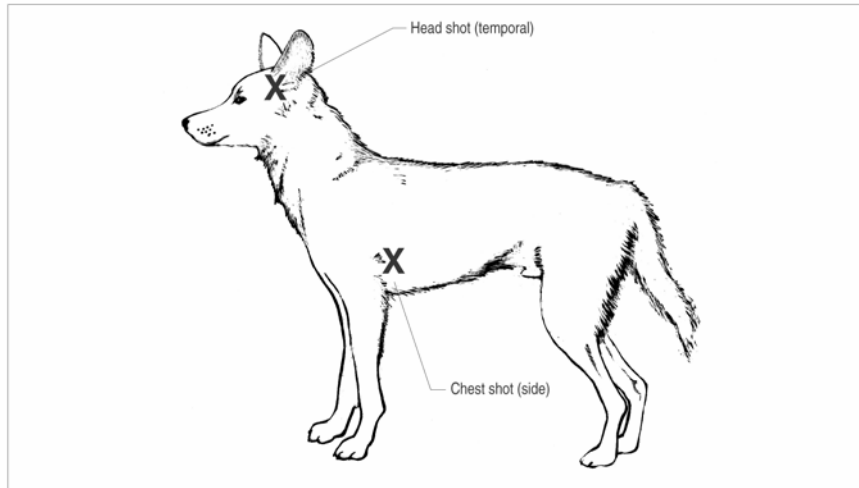


Diagram 2 - Side view (skeleton)

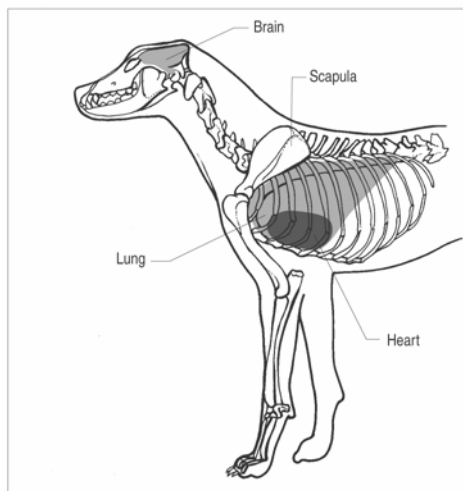


Diagram 3 - Head shot (frontal)



Note: Head shots (temporal or frontal) should be used for shooting wild dogs caught in traps. See text for details.