



# Animal Ethics

## Aerial Shooting of Large Feral Herbivores

*Camels, horses, cattle, donkeys, pigs*

The information in this factsheet has been collated directly from the National Standard Operating Procedures (NATSOPs) and Codes of Practice (CoPs) for the above listed large feral herbivores written by Sharp T (2011, 2012), Sharp T and Saunders G (2012) and the Terrestrial Vertebrate Working Group (2024) and available on the [PestSmart](#) website listed below under the Additional Online Resources section.

## General Guidelines

*Note: Information below is current as of February 2025*

Aerial shooting from a helicopter is used for population reductions in remote and/or inaccessible areas. Teams involved in shooting from a helicopter include, at minimum, a shooter and a pilot who together locate the large feral herbivores (LFH) as well as record the number of animals shot.

Aerial shooting is a humane method of destroying LFHs when it is carried out by experienced and skilled shooters and pilots; the animal can be clearly seen and is within range; the correct firearm, ammunition and shot placement is used; and wounded animals are promptly located and killed.

Initial head shots are preferred to achieve instantaneous loss of consciousness and loss of brain function. After the initial head shot, further shot/s must be fired into the cranium or chest to ensure death. Alternatively, 'double-tap' chest shots (2 quick shots) are commonly made, as the heart and lungs are the largest vital area and an accurate shot is more achievable.

A 'fly-back' procedure must be conducted in which the helicopter and shooter is flown back over the shot animals so that follow-up shots to the vital areas can be applied.

## Why is aerial shooting used?

Aerial shooting is considered the only practical method of control in rugged and inaccessible terrain where LFHs cannot be caught, or humanely ground shot.

Aerial shooting is a cost-effective method where LFH density is high (i.e. during dry seasons where animals have congregated near water and feed). Costs increase greatly and effectiveness reduces as LFH density decreases (i.e. during wet seasons where animals are more scattered) and in areas of heavy cover.



## When to perform aerial shooting

The optimal period for aerial shooting is during dry seasons or droughts when many LFHs are forced to congregate around remaining areas of water and feed. Shooting during drought reduces the number of animals that would otherwise die slowly of hunger or thirst. Aerial shooting during wet seasons when LFHs are widely dispersed will be less effective and more expensive.

To be effective, aerial culling is a management activity that must be sustained. Reducing the numbers of LFHs around areas of concern (cultural sites and important places) can mitigate local damage when performed on a regular basis (annually or two-yearly).

## Who can undertake aerial shooting?

Shooting of LFHs should only be performed by competent, trained personnel who have been tested and accredited with aerial marksman qualifications.

Helicopter pilots must hold the appropriate licences and permits and should be skilled and experienced in aerial shooting operations. Helicopter companies provide the authority to an aerial marksman to undertake shoots in their operations. All aerial marksmen must be approved by the helicopter pilot and company to operate.

Helicopter operators must have approval from the Civil Aviation Safety Authority to undertake aerial shooting operations.

Aerial shooting should comply with all relevant federal, state and territory legislation, policy and guidelines (see Additional Online Resources).

## How can Indigenous Ranger Groups undertake aerial shooting?

Aerial marksman training (AHCPMG311 – Use Firearms for Pest Control Activities from Aircraft) is a required training competency for rangers to undertake. However, all nominated marksmen must also be approved by the helicopter pilot and company to undertake this work in their aircraft. See below references for websites of training service providers.

Refer to the NAILSMA Work, Health and Safety Training and Risk Mitigation Table for specific training units and legal guidelines for WA, NT and QLD.

## How do we measure its effectiveness?

Surveys should be conducted both prior and post shooting operation to monitor effectiveness and to justify the culling program. This could include monitoring changes in the environment, such as wetlands and culturally significant sites, or direct measurement of LFH populations. Apps such as Feral Counter can be used to assist in recording survey data.

Aerial shooting should only be used in a strategic manner as part of a coordinated program designed to achieve sustained effective control. It is recommended to discuss with your local Department of Agriculture and Biosecurity regional bodies to understand current local priorities and operations being conducted.

## Community Education

It is important to work with Traditional Owners and community members and discuss any culturally and environmentally important sites that are starting to change due to large feral herbivore interactions. Working together with community to discuss preferred control options is a great way of developing community education of feral animals and the impact they could have on important sites.





## Additional Online Resources

[Primary Industries Standing Committee Model Code of Practice for the Welfare of Animals – The Camel \(Camelus dromedarius\)](#)

[Primary Industries Standing Committee Model Code of Practice for the Welfare of Animals – Feral Livestock Animals](#)

Record feral animal activity: [Feral Counter- Apps on Google Play](#) or [Feral Counter on the App Store](#), and [FeralScan](#)

PestSmart- [National Code of Practice for the humane control of feral camels](#). This page contains the below resources as well as relevant Commonwealth and State or Territory legislation.

- [NATSOP-CAM002 National Standard Operating Procedure: Aerial shooting of feral camels](#)
- [Humaneness Assessment Worksheet for Aerial Shooting of Feral Camels](#)

PestSmart- [National Code of Practice for the humane control of feral donkeys](#). This page contains the below resources as well as relevant Commonwealth and State or Territory legislation.

- [NATSOP-DON002 National Standard Operating Procedure: Aerial shooting of feral donkeys](#)

PestSmart- [National Code of Practice for the humane control of feral horses](#). This page contains the below resources as well as relevant Commonwealth and State or Territory legislation.

- [NATSOP-HOR002 National Standard Operating Procedure: Aerial shooting of feral horses](#)

PestSmart- [National Code of Practice for the humane control of feral pigs](#). This page contains the below resources as well as relevant Commonwealth and State or Territory legislation.

- [NATSOP-PIG002 National Standard Operating Procedure: Aerial shooting of feral pigs](#)
- [NATSOP-PIG004 National Standard Operating Procedure: Use of Judas pigs](#)
- [Glovebox Guide for Managing Feral Pigs](#)

## Firearms Licensing

[National Guidelines Firearms- 2017 National Firearms Agreement](#) | Attorney-General's Department

Western Australia Government- [Licensing Services \(Firearms\)](#)

Queensland Government – [Weapons Licensing | QPS](#)

NT Government- [Licence and Permit Applications and Information | NT Police, Fire & Emergency Services](#)

## Firearms Training Providers

### Queensland

Cairns Firearms Safety Course  
0417395561 | [pgkl44@gmail.com](mailto:pgkl44@gmail.com)  
Cairns City, Queensland

Ballistic training Solutions Pty Ltd  
1300 738 098 | [ballistictraining.com.au](http://ballistictraining.com.au)  
Caloundra West, 4551 Queensland Australia

IMPACT- Townsville  
0417 069 961  
[impactfirearmstraining.com.au](http://impactfirearmstraining.com.au)

Asset College  
1300 731 602 | [Study@asset.edu.au](mailto:Study@asset.edu.au)  
[asset.edu.au](http://asset.edu.au)

### Northern Territory

[Firearms Training and Safety Course providers- NT](#)

Sureline Security & Firearms Training NT  
Humpty Doo, NT, 0836  
(08) 8988 2369 | 0427 612 789  
[surelinesecurity@bigpond.com](mailto:surelinesecurity@bigpond.com)

Australian Security Training (Gareth Graham)  
0412 387 178  
[gareth.graham@itscomm.com.au](mailto:gareth.graham@itscomm.com.au)

Survival and Field Safety Australia  
0400 296 179  
[mark.butler@westnet.com.au](mailto:mark.butler@westnet.com.au)

**Northern Territory *continued***

Paladin Firearm Solutions

0428 588 515 | pat.paladin@gmail.com

Eagle Training Services (Gary Carter)

0414 656 821

gary@eagletraining.com.au

Morningstar Training (Mr David Farlam)

0459 527 057

info@morningstartraining.com.au

NT Firearms Training (Garry Miezis)

0418 349 477 | garrym26941@bigpond.com

BLP Training & INLOC Training (Darren North)

1300 257 477

training@blpts.com.au

operations@inlocgroup.com

**Western Australia**

Paragon Corporate Training

C4, 58 Newcastle Street, Perth WA 6000

08 9227 5125 | 041 718 6380

craig@paragontraining.com.au

Core Training Group

113 Belmont Ave, Belmont 6104

Postal: PO Box 441,

Forrestfield, WA, 6058

(08) 6336 8080

admin@coretraining.wa.edu.au

**National / Other**

All States Training

(07) 4123 0415

info@centralsafetytraining.com

Queensland 4650

Pest Animal Control and Training

(Stuart Boyd-Law)

0408 463 425

sboyd-law@bigpond.com

Firearm Safety and Training Council Ltd

P.O. Box 393, Terrey Hills NSW 2084

Phone: (02) 9486 3077 Fax: (02) 9486 3497

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