

## NATSOP-BIR001 NATIONAL STANDARD OPERATING PROCEDURE: SHOOTING OF PEST BIRDS

Voluntarily adopted by the Vertebrate Pest Committee 2012 with the Invasive Plants and Animals Committee endorsing minor updates September 2017.

### BACKGROUND

Pest bird problems are increasing in Australia, particularly with recent expansions in the grape and wine industry, and in the olive industry. More than 20 species of birds conflict with primary production by significantly reducing profitability of a wide range of crops in the cereal, horticultural and aquaculture industries. Over-abundant introduced and native species also compete with and displace less abundant native species, impacting on biodiversity.

Methods of pest bird control include nonlethal techniques such as scaring devices, chemical repellents, habitat manipulation, use of decoy food sources and exclusion netting. Lethal methods of control involve shooting, trapping and poisoning. In many situations lethal control methods have little effect on reducing damage. Shooting is used either to directly reduce numbers of pest birds through killing or more commonly as a scaring or dispersal strategy.

Shooting may have short-term advantages but the technique is often labour intensive, opportunistic and may have limited value in bird control.

This National Standard Operating Procedure (NATSOP) is a guide only; it does not replace or override the legislation that applies in the relevant state or territory jurisdiction. The NATSOP 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 coordinated program designed to achieve sustained effective control.
- A management plan that specifically targets the main pest species should be developed. Birds differ greatly in their ecology and behaviour and this influences the way in which they respond to different forms of control.
- Problem bird species and the damage they cause includes:
  - *Common starling*: causes damage to fruit (particularly grapes and cherries), vegetable and cereal crops. Implicated in carrying and transmitting diseases to man and other animals. Competes with native species for nest hollows.
  - *Common myna*: causes damage to fruit and grain crops. Commensal roosting and nesting habits creates aesthetic and human health concerns. Competes with native species for nest hollows.
  - *Sulphur-crested cockatoo, little corella*: damages ripening sunflower crops, fruit and nut crops.
  - *Galah*: causes damage to germinating cereal crops.
  - *Sparrow*: causes damage to fruit vegetable, grain and oilseed crops; competes with native species for nest hollows.
  - *Pigeon*: roosting sites cause fouling damage (from build-up of faeces) in urban areas. Implicated in carrying and transmitting diseases to man and other animals.
  - *Crows and ravens (corvids)*: consume fruits and grains. May prey upon sick, dying or mistothered lambs and can injure sheep.
- Shooting is often used as a scaring strategy to train the birds to associate the sharp, sudden noise with real danger and subsequently, a fear of humans and human activities. Birds can be frightened away without attempts to kill them although small numbers of birds are usually killed with a view to enhance the scaring effect.



## Impact on non-t

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- 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 protected birds that have been mistaken for a pest bird. Only shoot at the target bird 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.

## Health and Safety Considerations

- Care must be taken when handling birds as they may carry diseases such as psittacosis (chlamydiosis), aspergillosis, erysipelas, yersiniosis and salmonellosis that can affect humans and other animals. Routinely wash hands after handling all birds. Personal protective equipment, especially face masks, are recommended when handling bird carcasses to reduce the risk of contracting disease.
- Firearms are potentially 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.
- 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.

## EQUIPMENT REQUIRED

### Firearms and ammunition

- The type of firearm, ammunition and ammunition loads should be appropriate to the species being targeted as well as the location where shooting will occur. A summary of recommended firearms, shot sizes and ranges for some bird species can be found in Table 1.
- Shotguns are recommended for most birds. Twelvegauge shotguns are commonly used but smaller gauges such as the 410 are effective on smaller birds.
- Non-toxic shot (eg tungsten-bismuth-tin, bismuth, tungsten-iron, steel, bismuth-tin, zinc etc) must be used. Lead shot is potentially toxic to a range of species and is illegal in some areas. Animals may be poisoned by lead in one of two general ways:
  - Species such as waterfowl mistake spent shot for food or grit and ingest it from wetland or terrestrial environments.
  - Other species, especially eagles and other raptors, and scavengers, ingest pellets when they consume prey that have been shot with shotgun ammunition and are carrying shot pellets embedded in their tissues.
- If intending to use steel shot ensure that it is safe and effective to do so in your gun. Steel pellets should only be discharged in modern guns that are capable of withstanding the extra stresses produced.
- When using shotguns, ensure that the choke configuration delivers a dense pattern on the target within the specified distances. For larger birds tighter chokes are preferred eg ½ to full.

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- Centrefire rifles are suitable for large birds such as emus.
- On some occasions birds such as pigeons need to be shot inside shelters, sheds or other buildings. Air rifles are suitable for this task but they must have sufficient power (eg 1,000 feet / second in .17 calibre or 750 feet / second in .22 calibre) to kill humanely and consistently. They must also be fitted with a telescopic sight and because of their high recoil; a sight specifically designed for pneumatic air rifles is required. Magnification of 4x is suitable and ranges kept under 25 metres to ensure adequate energy is applied to the target. Alternatively .22 rim fire shot cartridge can be used in buildings or shelters. This round is the ordinary .22 rimfire loaded with very fine No. 11 shot (generally known as .22 rat shot or .22 bird shot). Because of their poor patterning characteristics and light weight shot, 15 metres should be regarded as maximum range. Normally the pellets will not penetrate galvanised iron.
- The accuracy and precision of firearms should be tested against inanimate targets prior to the commencement of any shooting operation. Pattern your chosen gun/cartridge/choke combination before shooting to check your accuracy and that the pattern is adequate for the intended target bird.

### **Other equipment**

- first aid kit
- lockable firearm box
- lockable ammunition box

## **PROCEDURES**

### **Identification of birds**

- Shooters should have sufficient knowledge and skill to identify the bird species causing the damage. If the identification of the bird is in doubt it must not be shot.

### **Conduct of shooting**

- Shooting should only be conducted during daylight hours. Shooting in poor light conditions makes it difficult to correctly identify birds and to search for wounded birds. Also, accurate marksmanship may be compromised.
- Shooting should not be conducted in adverse weather conditions where birds cannot be shot and located/ retrieved in a safe and humane manner.
- Birds 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.

#### **Target bird and point of aim**

- Only one bird should be targeted at a time. The shooter should aim to have a single bird in the centre of the shot pattern at the point of impact. Shooting at a flock is not an acceptable practice.
- The objective is to fire at the closest range practicable in order to reduce the risk of non-lethal wounding. Accuracy is important to achieve a humane death. One shot should ensure instantaneous loss of consciousness and rapid death without resumption of consciousness.

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- A pest bird should only be shot at when:
  - It can be clearly seen and identified
  - It is within the effective range of the firearm and ammunition being used
  - A humane kill is highly probable. If in doubt, do NOT shoot.
- For most small to medium birds, the point of aim should be the centre of the birds' chest.
- For large birds such as emus, a shot to the brain, using a shotgun, is preferred when the bird is in close range (<30 m). If the bird is > 30 metres from the shooter, a chest shot using a large calibre centrefire rifle (eg .243) should be used.
- When using a rifle, the target bird must be stationary and within a range that permits accurate placement of the shot.
- When using a shotgun, the target bird may be stationary or mobile, but must be no more than 30 metres from the shooter. The pattern of shot should be centred on the brain (for large birds) or chest (for small to medium birds). It is essential that the distance to the target bird is accurately judged. To achieve adequate penetration of shot, the bird must be in range. It is recommended that shooters practice estimating distances before a shooting operation.
- See notes above in Firearms and Ammunition on the use of air rifles on small birds.
- The target bird should be checked to ensure it is dead before moving on to the next bird. When targeting multiple birds in a flock, a number of birds will need to be shot in rapid succession. In this case, the birds in the group should be checked to ensure they are dead before moving on to the next group. Death of shot birds should always be confirmed by observing the following: — absence of movement — absence of rhythmic, respiratory movements. — absence of heart beat – feel the chest between thumb and forefinger — absence of eye protection reflex (corneal reflex) or 'blink'.

If death cannot be verified, a second shot to the head should be taken immediately or the bird killed with a blow to the skull using a heavy instrument to destroy the brain.

- Killed birds must be collected and disposed of in an appropriate manner in accordance with acceptable practices as required by local councils and applicable state or federal regulations.

## NATSOP-BIR001 NATIONAL STANDARD OPERATING PROCEDURE: SHOOTING OF PEST BIRDS

**Table 1: Firearms, shot size specifications and ranges for the humane destruction of birds.**

This information has been extracted from the Code of Practice for the *Humane Destruction of Birds by*

Bird species	Firearm	Shot size	Optimum range (metres)	Effective range (metres)
Small birds up to starling size (eg silvereyes, sparrows)	410 shotgun 12 gauge shotgun	10's 10's -12's	15 30	25 30
Blackbirds, starlings	410 shotgun 12 gauge shotgun	7's -9's 7's -9's	15 30	25 30
Red wattlebirds, rosellas, lorikeets	12 gauge shotgun	6's – 8's	30	30
Birds up to teal size (eg galahs, little corellas, silver ulls, feral pigeons, chestnut teal, grey teal, pink-eared duck, white-eyed duck)	12 gauge shotgun	4's to 6's	30	30
Birds up to mountain duck size (eg long-billed corellas, sulphurcrested cockatoos, cormorants, magpies, crows, ravens, black duck, wood duck, mountain duck)	12 gauge shotgun	3's to 5's	30	40
Cape barren geese	Centrefire rifle with telescopic sights 12 gauge shotgun	Manuf. specs. 1's, 2's (36g)	50 30	200 40
Emu	Centrefire rifle –heart shot only 12 gauge shotgun – head shot (injured birds only)	Manuf. specs. 1's, 2's	50 5	100 10

## NATSOP-BIR001 NATIONAL STANDARD OPERATING PROCEDURE:

### SHOOTING OF PEST BIRDS FURTHER INFORMATION

Contact the relevant federal, state or territory government agency from the following list of websites:

- Australian Department of the Environment and Energy <http://www.environment.gov.au/>
- Australian Department of Agriculture and Water Resources <http://www.agriculture.gov.au/>
- ACT Territory and Municipal Services  
Directorate <http://www.act.gov.au/browse/topics/environment>
- NSW Department of Primary Industries <http://www.dpi.nsw.gov.au/>
- NT Department of Environment and Natural resources <http://irm.nt.gov.au/>
- Qld Department of Agriculture and Fisheries <http://www.daff.qld.gov.au/>
- Biosecurity SA, SA Department of Primary Industries and  
Regions <http://www.pir.sa.gov.au/biosecuritysa>
- Tas Department of Primary Industries, Parks, Water and  
Environment <http://www.dpiw.tas.gov.au/>
- Vic Department of Primary Industries <http://www.dpi.vic.gov.au/>
- WA Department of Agriculture and Food <http://www.agric.wa.gov.au>

Also refer to:

- Centre for Invasive Species Solutions <https://invasives.com.au/>

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If you have printed this document please ensure you regularly check <https://pestsmart.org.au> for the latest updates of these documents.

Reference me as: Sharp T (2012) NATSOP-BIR001 National Standard Operating Procedure: Shooting of pest birds. PestSmart website. <https://pestsmart.org.au/toolkit-resource/shooting-of-pest-birds/>