

Feral pig control in the Western region



A handbook for landholders

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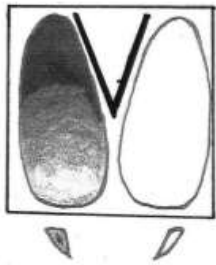
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Introduction

Feral pigs cause significant economic losses to both livestock grazing and cropping primary production enterprises in the region. Impacts to production include, predation of young lambs and kids, competition for and damage to pastures, reduced stocking rates, crop damage at sowing and prior to harvest, fouling of waterways and dams through wallowing, spreading of weeds and damage to infrastructure including fences, troughs, bores and silos.

Feral pigs are also hosts or vectors to a number of important endemic diseases of humans and animals including brucellosis, tuberculosis and leptospirosis. They would also be important vectors of certain exotic diseases including foot and mouth disease should it enter Australia. The potential spread of this disease through feral pig populations would be catastrophic to Australian agriculture and our native ecosystems.

Identification



Tracks

- square in shape
- wide 'V' between hooves
- due hooves may be present
- blunt tip on hoof
- deepest part of the track will be on the tip of the hoof, as indicated by shading.

Scats

- often contains sand and dirt, beetle husks and hair from eating carrion
- often contains seed heads, different grain types and large pieces of vegetative matter
- normally 3-7 segments per scat
- each segment is 'blockish' in shape (human like appearance).



Sows reach sexual maturity around 25 kg or 6 months of age and can have 2 weaned litters every 12-15 months. Litter sizes can range from 4-10 piglets, with fertility of the sow increasing with age. In ideal seasonal conditions pig numbers can increase by up to 86% in one year.



Digging in White Cliffs observed during aerial shoot.

Feral pig control

A large part of managing feral pig problems depends on the landholder's awareness of the situation and their ability to make informed decisions about the best control methods to reduce numbers effectively.

Efficacy of control methods

Feral pig populations require more than 70% knock down annually to have a lasting impact on population numbers. Integrated management gives the best result. A number of control options can be utilised to help achieve this target including:

- 1080 baiting (coordinated group) up to 99% efficacy
- 1080 baiting (individual) 70-90% efficacy
- aerial shooting 64-80% efficacy
- trapping 28-83% efficacy
- ground shooting/dogging less than 20% efficacy.

Free feeding

The success of your pig control program will be determined by how well you free feed. Free feeding will draw the maximum number of pigs in the area to your site.

Timing

Look for points of resource stress. As much as possible, try and time your pig control program (same goes for trapping or baiting) to a point in the season or year when the pigs are under resource stress (this can be stress due to lack of food, water or shelter). This will mean different things in different regions (and will sometimes be different between years). In Western NSW this might mean doing pig control in January or February when pigs are concentrated on water points, for NSW grain growing areas this might mean baiting in April, between summer and winter crop cycles.

Tip – know your country and get the timing right.



Brewarrina rubbing and camp site of pigs.



Feral pig pad entering an oat stubble paddock with under sown lucerne in Cobar.



Free feeding site using grain in checker board piles in Cobar area.

Site selection

Select your free feed sites after conducting a property inspection and looking for key signs such as well-worn pig pads, wallows around water holes, ground rooting, crop damage. Feral pig numbers are almost always underestimated so allow for this by establishing more control sites than you think you will need. Look for the area that has been heavily used or around water holes such as dams, creeks or gullies as these cool places are key habitats for pigs. Pigs don't have sweat glands and need water frequently, that's what makes trapping around water easier for landholders.

- Begin free feeding by placing out 10-15 kg (a large bucket) of clean, good quality grain at sites where you have identified pig sign.
- Trail cameras are a very useful tool to use for monitoring sites. If you do have cameras on sites use them as a learning tool and try and determine what you think is happening at each site before you look at the photos. That way your sign reading, and interpretation skills, will improve.
- It may take some time. Depending on other food sources, disturbance and other things that are hard to pick, sometimes it takes a few nights for pigs to eat the free feed – they may even walk through it and not eat anything.

Tip – it can be a grind, keep trying.

- Once you have them feeding keep them there. Once pigs start feeding keep them coming to your site, use good quality grain and make sure there is plenty of it. You will notice changes in the pigs once they start to get used to you driving around. They will be waiting for the feed to arrive if undisturbed. It is a good idea to also exclude hunting from these areas to settle the pigs down and let them get comfortable with the area.

Tip - make sure the pigs have a positive experience at your site.



Feral pigs (Photo: Troy Crittle).

- Budget your feed, time and resources to free feed for a minimum of 3 days as the Pesticide Control Order (PCO) states minimum but for optimum results 7-14-21 days.
The length of time spent free feeding is 80% of the problem landholders face and it is crucial to the 70% minimum target that is needed to see a reduction in feral pig numbers. Remember relying on one control method alone is unlikely to have a lasting effect. Different methods of control used together will give you a higher percentage of reduction over time.
- They all need to eat. Pigs can be very territorial and aggressive around feed sites (even within family groups), so be sure to lay out the free feed in a way that dominant pigs can't bully smaller pigs away from the feed and allow all pigs access to the feed or bait. Avoid placing grain in one pile put it out in a checker board style with 2-3 kg piles.
- Look for the plateau. When the free feed uptake each night levels out after 10-14-21 days you can be reasonably confident that most of the pigs in the area are at your site and you can begin your choice of control method.

1080 baiting

1080 baiting is your best tool for pig control. In the Western Local Land Services region, there are 2 types of bait materials: grain and meat.

The best possible way to reach the minimum target of 70% is through a good baiting program, that can reduce large numbers of pigs in areas quickly and effectively. However, a well-planned and implemented baiting program can give you up to a 90% population reduction.

Baiting is cost-effective and less labour intensive than trapping. Baiting can complement and enhance the effect of aerial shooting programs – especially if it's carried out just prior to aerial shooting.

Baiting tips

- Always bait with the same grain you free fed with.
- Place out the toxic feed in a way that all the pigs coming to the site can eat it. See figure below.
- Stick to the 2/3 rule (it works). If your final free feed is 10 kg at a site put out no more than 6.6 kg of 1080 grain. Pigs will never eat the full amount, because they stop eating when the 1080 takes effect (normally after 1.5–2 hours). The less that's left over is less you have to pick up and dispose of at the end of the baiting program.

1080 baiting is your best tool for pig control – the morning after baiting be sure to arrive at the site as early as possible around sunrise and clean up any unused grain or spewed up grain into a poison labelled bag and bury on the property below 500 mm of soil. This is a requirement of the PCO.



Bait site with checker board grid.



Fenced off bait site for meat baiting Cobar area (Photo: Andrew Hull).

Minimising risk to non-target species

When free feeding, place out toxic grain just on sunset and stick to the 2/3 rule to prevent most non-target native species from accessing 1080 grain. This is because pigs will be on site eating it, however ensure to inspect the bait site as soon as possible after sunrise and remove any uneaten bait.

If you've free fed well and created a positive association with the site, the free fed pigs should be eating the bait soon after its laid, minimising risk to other animals.

- **Monitoring:** The use of monitoring cameras can be extremely helpful for identifying what animals (pigs and non-target) are frequently using the site.
- **Cattle:** Cattle are relatively easy to exclude from bait sites with a simple 3 barb wire fence, just make the enclosure large enough so that the cattle cannot lean over the wire to reach the grain/meat. Make simple stays to support the corners so they can't push the fence over. The use of trees around a site where they can be incorporated is also a great barrier.
- **Sheep and goats:** Crossbred and dorper sheep can be quite determined and are the hardest livestock to keep out of baiting sites and you will most likely need exclusion devices. Whenever possible bait in paddocks where the sheep have been mustered and removed (but always put up a simple fence as an additional defence if required). 3 m steel posts with a hinge-joint fence that slides up on the post and drops back down as pig push under can be useful.
- **Birds:** Place out toxic grain or meat as close as possible to sunset and check sites on daylight and pickup any unused bait.
- **Working dogs:** Bury pig carcasses whenever possible, bury vomit material and muzzle working dogs, avoid the area until carcasses have decomposed.
- **Wild dogs/fox:** When using meat as an option be sure to have completed a baiting program within 6 months before baiting pigs.



Exclusion fence Brewarrina area.



Meat baiting site Cobar area (Photo: Andrew Hull).



Pig coming to poisoned grain in Cobar.



Poisoned grain clean-up from site minimum clean-up.



Feral pig baiting station.

1080 meat baiting

Meat injected with 1080 is only approved in the Western Local Land Services region of NSW as there is an approved permit from the Australian Pesticides and Veterinary Medicines Authority (APVMA) to carry out this work. Red muscle meat 500 g in weight with no bone is to be used under the permit conditions.

Kangaroo muscle meat can be used and sourced through an approved supplier or self-supplied if you have the required permit. The permit allows landholders to use the kangaroos harvested for a non-commercial secondary purpose, including for pest animal baiting programs. This permit can be obtained from the National Parks and Wildlife Service (NPWS) in your area.

When free feeding, it is best to use the same muscle meat that is going to be poisoned.

When using meat, to comply with the permit, you must have completed a baiting program for wild dogs or foxes within 6 months prior to baiting feral pigs. This is to reduce the risk to non target species.

Other baiting options

HogGone (sodium nitrite): This can be costly to farmers as they need to buy the hog hoppers and placebo that is relatively expensive to use when dealing with larger scale pig problems. HogGone can be purchased from your local rural merchant as it's not a schedule 7 poison.

Pigout: This is available through your nearest Local Land Service office, as it is a restricted chemical product. Each bait weighs 200 g. This is a schedule 7 poison.



Poison pellets.



Pigout bait 200 g.



Poisoning of feral pigs with sodium nitrate (HogGone).



Pigs feeding at a hog hopper sodium nitrite
(Photo: Darren Marshall).



Pigs feeding at a hog hopper
(Photo: Barry Kelly).

Delivery devices

These devices help exclude non-target access to poisons and contain the poison material. Some devices currently available include: HogGone feeder, Hog hopper, Pigbaitta, Hogmat. You can find all these products online.



Hogmat and HogGone feeder.

Trapping

Trap design

Trap design is not particularly important (provided they can get in but not get back out). Panel traps with a flat door built into one panel are a good option as they are relatively quick to setup and dismantle and they pack flat for transport. There are several traps designs out there. The most important parts are strength, height and the ease of moving them around. Making traps that can be moved around quickly but are still effective will make it easier when trapping.



Feral pigs in a panel trap with a one-way door with star pickets on the diagonal to secure to the ground.



Wanaaring trap (tiger cage mesh) used with one-way door.



Enclosed trap with vertical one-way door.

Free feeding for trapping is the same process as for baiting with a couple of considerations:

- Free feeding at semi-permanent traps can be tricky but achievable. If traps have been previously set without proper free feeding, it can have a negative association with them, meaning that effective free feeding may take much longer. In this case free feed outside the trap until the pigs are comfortable eating. When the grain outside the trap is regularly being eaten, move the feed inside the trap. Then, continue to free feed inside the trap with the door tied up for a minimum of 3 days, or until you are confident that the pigs are comfortable feeding. Often younger pigs will enter the trap and draw the older wary pigs in.
- If the pigs aren't feeding in the trap don't waste your time, move it to where the pigs are comfortable feeding. It may be closer to a water source or the other side of the paddock. If they aren't eating at the site, they aren't comfortable. It really is about knowing the country and understanding where the feral pigs are happy feeding. This will be evident by ground rooting, nests or pig trail pads. Build the trap alongside the path so when the pigs walk past it-temptation will get the better of them.

Trapping at new sites

Free feed for 4-5 nights before introducing the trap. Once pigs are eating the grain on the ground regularly then introduce the trap. There's no point placing a trap on a site if they aren't eating at that location you might have to move to a more comfortable location. Continue to free feed for 4-5 nights or however long it takes for pigs to become comfortable at the trap. Remember to use plenty of good quality grain. Soaking the grain and letting it ferment is also a good tool for drawing the pigs in.

Training pigs

This is critical in removing as many in the group as possible it's also important in not developing negative trap associations in pigs on the outside of the trap. Once you have pigs feeding inside the trap for 4-5 nights introduce the trap door.

A small length of chain from the end of the gate to the top of the trap will allow the gate to rise and fall and the bigger pigs can feel this on their back as they enter and leave the trap. Make sure to leave a gap of 30cm between the bottom of the door and the ground. Continue free feeding for another 3-4 nights until you are confident the pigs are trained to go in and out of the trap.



Larger panel trap for bigger mobs.

Setting the trap

There's no need to over think the trigger mechanism. A stick about 30-40 cm long will do the job (test the door fall and make sure the stick doesn't jam in the door, angling the stick backwards away from the door will help with this). Tripwires such as bailing twine work well but need to be remade after each capture (as the pigs destroy them).

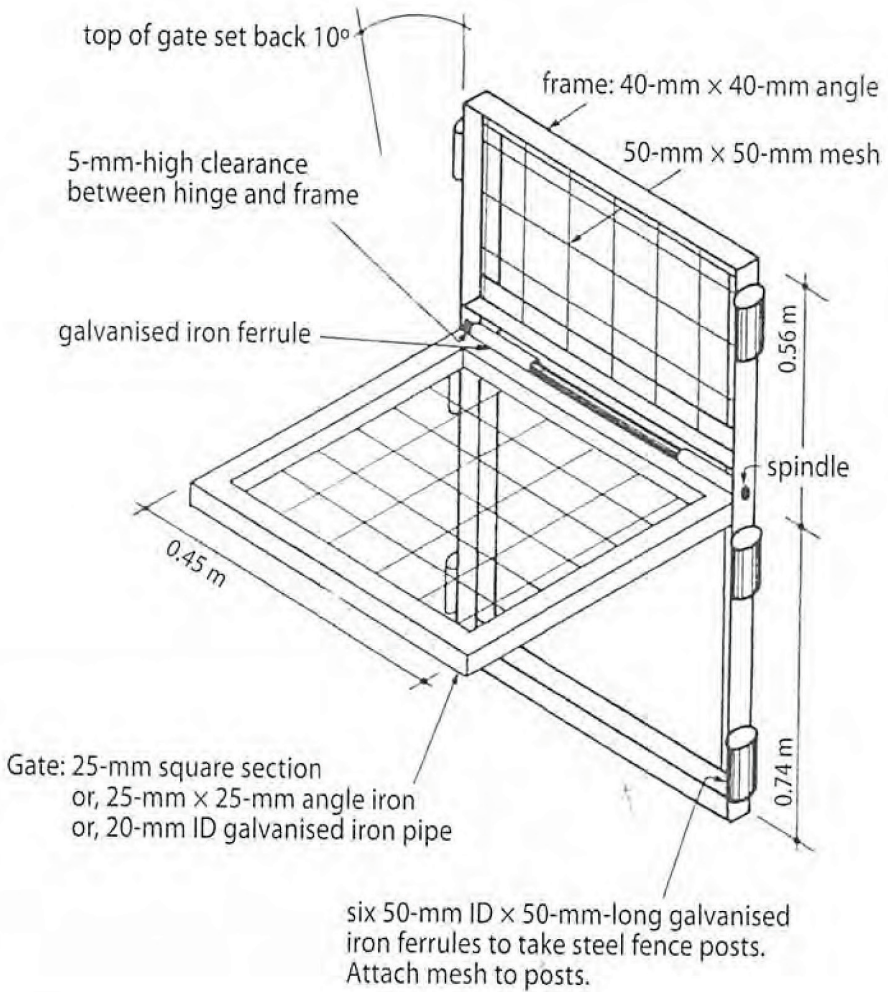
Tip - if pigs are eating up to the door and not entering the trap you need to continue free feeding.

Free feeding is essential, and it can take some time and effort, but the benefits are clear you just need to be consistent with your approach for a desired outcome. If you have free fed effectively, pigs will push in even if you leave the gate down or the funnel closed.

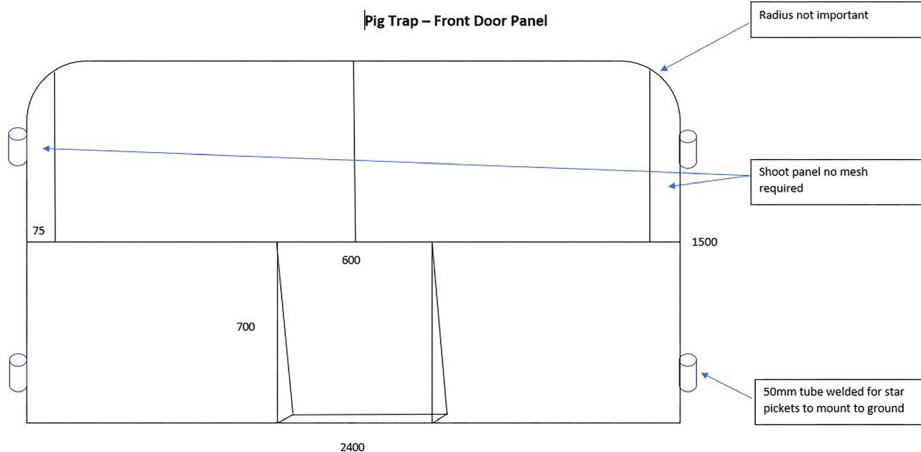


Trap door setting (Photo: Troy Crittle).

Trap designs



Examples of top-hinged drop gates designed for feral pig traps. The example is more bulky and difficult to transport, but the side wings prevent pigs from exiting the trap when new pigs enter and the half-moon base prevents pigs from opening the door from within the trap.



Preferred frame construction is 25mm tube (can be RHS) – 2mm wall thickness or close to thicker better for Pig trap	Access door recess reinforced with flat bar and inset 75mm at base
4mm gauge mesh with 50mm x 50mm squares	All welds cold galvanising painted
Mesh welded on inner side of panel – same side as flap door.	Diagram Not to Scale
All sharp edges removed	Dimensions in millimetres (mm)
Shooting portal widths 75mm	4x Ring/ 50mm pipe top and bottom each side of panel to fit star picket



Pigs in a panel trap at Brewarrina.

Destroying the pigs

Check your traps as early in the day as possible. If there are pigs in the trap park back about 30-40 m from the trap and approach quietly on foot. Using a small calibre rifle humanely destroy the feral pigs caught. After destroying the animals, it is a good practice to remove the blood with a shovel as the blood can deter your next catch. Feral pigs are very intelligent, and the slightest upset could give them a negative association with the trap and move them on.



An aerial view of feral pigs.

Aerial shooting

Aerial feral animal aerial shooting team (FAAST) control is another option that is very effective to knock down large populations over a larger area across a landscape, however it can be expensive.

Aerial control methods have proven to be a valuable tool for clean up on a larger scale in a quicker timeframe and is less labour intensive. The benefits of aerial shooting have shown across different regions.



A mob of feral pigs.



Conclusion

Feral pig numbers need to be controlled constantly to manage numbers and mitigate their impacts on primary production and the environment.

Feral pig control is in everyone's best interest, especially when considering the risk of exotic diseases like foot and mouth disease.

The key message for landholders is that feral pigs don't stop at a boundary fence and the interaction between mobs will make it extremely hard to control if we have a foot and mouth disease outbreak in Australia.

The control of feral pigs across Australia is paramount to protecting our ecosystem's as they adapt to different terrain and climates easily.

There are several different options available to landowners/managers for managing feral pigs. But the most cost-effective solution is 1080 baiting. It just simply depends at what cost do you value the biosecurity risks and pest animal control on your enterprise.

For assistance in any areas of pest animal control, contact Local Land Services and ask to speak with your local biosecurity officer.

Useful links

Free feeding

- <https://www.youtube.com/watch?v=wYMAP0pTFus>

Feral pig control techniques

- <https://www.youtube.com/watch?v=-gbJmCCgaZo>

Seasonal behaviour in feral pigs

- <https://www.youtube.com/watch?v=gr4wzTb3E9o>

Pig trapping tips and tricks

- https://www.youtube.com/watch?v=t_tt1rJb5xk&list=PLbeXAYbNsB_HrQz0aLpYOLHMP1rOw998E

Feral pig meat baiting in Western NSW

- <https://www.youtube.com/watch?v=-V35qXR4flk>

Controlling feral pigs in Western NSW

- <https://www.youtube.com/watch?v=X9fK4x5-CAM>

Working with Local land Services to control feral pigs

- <https://www.youtube.com/watch?v=GUo6QGNJnxw>



Western region contacts

Balranald

82 Market Street
Balranald NSW 2715
P: (03) 5020 1691
Open by appointment

Bourke

21 Mitchell Street
Bourke NSW 2840
P: (02) 6870 8600
Monday to Friday 8:30 am -4:30 pm

Brewarrina

24 Bathurst Street
Brewarrina NSW 2839
P: (02) 6870 8600
Open by appointment

Broken Hill

Adelaide Road
Broken Hill NSW 2880
P: (08) 8088 9310
Monday to Friday 8:30 am -4:30 pm

Buronga

32 Enterprise Way
Buronga NSW 2739
P: (03) 5021 9460
Monday to Friday 8:30 am -4:30 pm

Cobar

3-5 Bradley Street
Cobar NSW 2835
P: (02) 6836 6000
Monday to Friday 8:30 am -4:30 pm

Hillston

180 High Street
Hillston NSW 2675
P: (02) 6967 2507
Monday to Friday 8:30 am -4:30 pm

Tibooburra

1 Wills Street
Tibooburra NSW 2880
P: (08) 8088 9310
Monday to Friday 8:30 am -4:30 pm

Wanaaring

Vicary Street
Wanaaring NSW 2840
P: (08) 8087 3378
Open by appointment

Wentworth

1 Silver City Highway
Wentworth NSW 2648
P: (03) 5027 3064
Monday to Friday 8:30 am -4:30 pm

Wilcannia

43 Woore Street
Wilcannia NSW 2836
P: (08) 8088 9310
Open by appointment

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