

Feral goat

Capra hircus



Declaration details

The feral goat is a declared Class 2 animal under the *Land Protection (Pest and Stock Route Management) Act 2002* and landholders are required to control its numbers on their land.

Managing feral goats is important to protect our agricultural industries and for wildlife conservation. Feral goats contribute to overgrazing, which can result in soil erosion and other forms of land degradation.

History

Goats were domesticated by 7500 BC and were valued for their ability to exploit land of low productivity and areas that could not be used by humans. Another advantage is that goats are easily controlled with little labour. Meat, milk products, and fibre are useful products.

Goats arrived in Australia with the First Fleet and were introduced to inland areas by early settlers, miners and railway construction gangs as a source of meat and milk. Herds were allowed to run free and many reverted to the wild.

Angora and Cashmere goats were introduced in 1861 for a specialty wool trade. The venture failed because of competition and increased production from merino sheep and because of difficulties handling goat fibres.

Consequently, many pastoralists abandoned their goats and the genetic diversity of wild populations increased. Cashmere is produced by about 80% of Australia's feral goats with each yielding an average of 90 grams per clip.

Goats that survived after release or escaped from domestic herds are known as feral goats.

Habitat and distribution

Today, feral goats are present over much of Australia, with greatest numbers being concentrated in the semi-arid pastoral areas of Western Australia, western New South Wales, southern South Australia, and central and south-western Queensland. Australia has at least 2.3 million feral goats, with estimates of up to 240 000 feral goats in Queensland.

Feral goats are commonly found in rugged terrain that provides safety from pursuing predators such as wild dogs and humans. Other environments are colonised, but the isolation and comparative safety of ranges and semi-arid rangelands are preferred. Feral goats survive and breed in most habitats except rainforest, extensive wetland and desert areas.

Habitat selection is influenced by:

- availability of shelter (rock overhangs, caves, thickets of trees or dense scrub)
- adequacy of surface water supply
- abundance of preferred food species.

Predation by wild dogs clearly influences feral goat distribution.

Commercial use of feral goats

Feral goats are in demand for local and international markets. Meat and hides are valued. Some are exported live to countries in Asia and the Middle East. Feral goats are used to genetically upgrade commercial meat-production flocks and can be used for the control of weeds in some limited circumstances. Approximately 150 000 feral goats are harvested each year from central and south-western Queensland and killed at abattoirs. Feral goats are also field shot, as are feral pigs and kangaroos. These are processed through 'chiller boxes' located throughout Queensland.



Social behaviour and reproduction

In arid areas there appears to be no defined breeding season. In temperate areas mating tends to occur from January to June with a peak in February. The gestation period is 150 days.

Twins are common, and young are suckled for up to 60 days. Given favourable conditions, breeding may occur twice in one year. A female is capable of conception at six months provided body weight is more than 15 kg. Adult goats weigh about 45 kg for females and up to 60 kg for males.

Related females and their young form long-term associations within large herds—a matriarchal social organisation. Adult males form herds that associate with female herds during the breeding season.

Feral goats occupy a home range usually centred around a water supply. In arid areas, this range can be up to 379 km². In drier periods, when water is scarce, home ranges become small as animals remain close to permanent water.

Impact

Goats are generalist herbivores, eating a wide variety of plant foods. The highest quality food available is often selected.

As a selective browser, the feral goat can have a profound effect on a plant community over a relatively short period. In areas where the soil is of moderate to high fertility, changes in the balance of plant species in forests begins with the thinning-out of preferred understorey plants—leaving low-preference species untouched.

Through selective feeding, feral goats can reduce the diversity of plant species. Regeneration of some trees and shrubs may be prevented. Plants resistant to browsing and unpalatable species replace original forest.

The amount of vegetative cover may be severely depleted because of overuse and trampling by feral goats, leading to soil erosion. Feral goats compete with native fauna for food, shelter and water, particularly in semi-arid areas.

Feral goats are regarded as pests by some pastoralists because they compete with domestic livestock for resources. Overgrazing is a major contributing factor to land degradation in the mulga lands of Queensland. Feral goats, along with native and domestic herbivores, must be managed as one component of total grazing pressure.

The cost of feral goats is unknown. At least \$17 million is lost to the Australian sheep industry through competition between feral goats and domestic sheep.



Disease

Feral goats are susceptible to devastating exotic livestock diseases including foot-and-mouth disease, scrapie, rinderpest, Rift Valley fever, rabies and blue tongue. Unchecked, wild herds could play a major role in the spread of infection and act as a reservoir if these diseases are introduced to Australia.

Feral goats are prone to a number of diseases currently in Australia including Q fever, tetanus, leptospirosis, brucella melitensis, hydatids, pulpy kidney, blackleg, and various parasitic worms of the gastro-intestinal tract.

Control

A population of goats is capable of doubling in size every 1.6 years in the absence of death caused by human control activities. To prevent populations from increasing, approximately 35% of the population must be removed each year.

For commercial goat harvesting operations to be viable, capture methods must be economical. More expensive methods may be justified in the control of exotic diseases or for environmental protection.

Feral goat control or management depends on market influences. In times of good prices, feral goats are harvested. When prices or feral goat densities are low, little control is undertaken. Effective management of feral goats for agricultural or conservation benefit must be ongoing and cannot rely on market forces.

Feral goat management is more effective when combinations of techniques are used and control is carried out over large areas.

Mustering

Mustering by motorcycle or horse with the aid of dogs may achieve good results, especially if employed by local residents who opportunistically take advantage of the tendency for feral goats to aggregate into larger herds.

It is important to muster only that number of goats that can be confidently handled. Escapees can become cunning, and retreat from the herd or go to ground at the next muster.

Shooting

Ground shooting is labour intensive but can produce good results if control programs are well planned and the effort is maintained. Helicopter shooting is extremely effective and can result in a rapid and substantial reduction in goat numbers when there is no extensive cover in the form of dense scrub, caves, or rock piles.

However, helicopter shooting is expensive and is used only when the need for a reduction in feral goat numbers is great and when cheaper alternatives are not available.

Trapping

Goats may be trapped at water if alternative watering points are not available. Traps consist of a goat-proof fence surrounding a water point that is entered through one-way gates or ramps. There are a variety of designs for these gates or ramps, which permit the goats to enter, but not to exit. These traps can also be used for domestic stock management. It may be possible to close off troughs and dams and thereby direct goats to a central watering point.

Trapping using food as an attractant has been found to be unsuccessful.

Judas goat

It is difficult to find goats in areas where moderate to dense vegetation and hilly terrain impedes visibility. To overcome this problem the 'Judas goat' technique can be used.

Feral goats are fitted with radio transmitters and then can be located with directional receiving equipment. Goats are social animals and when a goat carrying a radio transmitter is released in an area known to contain feral goats, it will join up with the herd.

The radio collared 'Judas' goat is then tracked and local feral goats are shot. The Judas goat can be allowed to escape and the process repeated.

Further information

Further information is available from your local government office, or by contacting Biosecurity Queensland (call 13 25 23 or visit our website at www.biosecurity.qld.gov.au).

Fact sheets are available from Department of Employment, Economic Development and Innovation (DEEDI) service centres and our Business Information Centre (telephone 13 25 23). Check our website at www.biosecurity.qld.gov.au to ensure you have the latest version of this fact sheet. The control methods referred to in this fact sheet should be used in accordance with the restrictions (federal and state legislation, and local government laws) directly or indirectly related to each control method. These restrictions may prevent the use of one or more of the methods referred to, depending on individual circumstances. While every care is taken to ensure the accuracy of this information, DEEDI does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.