Goat

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# **History**

It is generally accepted that early mariners introduced goats into coastal Australia during the 17th century, either as a result of shipwrecks or in a deliberate attempt to provide a source of food on off-shore islands.

Goats were introduced into the mainland of Australia by early settlers, miners and road or rail construction gangs. Breeding goats escaped or were released into the bush and became semi-feral on many pastoral holdings.

# Distribution

The distribution of feral goats into mainland Australia is shown in figure 1. The two main factors affecting this distribution are predation and environment. Shelter is essential to limit the effects of predation. Feral goats are dependant on drinking water being available and, therefore, are not found in desert environments.

### **Predators**

Hunting by man is the main reason why feral goats are found in areas of low human population. They have adapted quickly to the drier, harsher conditions and goat numbers are affected only by the intrusion of man for commercial motives. Rough topography and dense vegetation have allowed, in some cases, feral goat populations to stabilize in agricultural areas.

Dingoes and foxes prey upon both the young and mature goat. This has caused movement into dog-free areas. In some areas, however, when conditions are particularly favourable, dingoes and goats can coexist, although the goat population is scattered into smaller groups.

Other predators (feral pigs and eagles) have been shown to reduce rearing survival percentages, but their aggressive activity has not restricted the distribution of goats.

# **Environment**

The greatest density of feral goats is found in the Acacia shrublands (mulga) of Queensland, New South Wales, South and Western Australia.

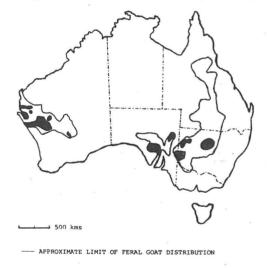
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The Australian Feral

Feral goats also occur within the wheat and sheep and high rainfall zones of southern and eastern Australia, but are usually located in the rough terrain of the poorer soil types.

A third main vegetation type favoured by feral goats is hilly terrain in the arid zone, which has some shrub cover and a scattered herb layer.

Feral goats are not usually found in open grasslands unless rough terrain is available nearby for refuge.



AREAS KNOWN TO HAVE A RELATIVELY HIGH GOAT DENSITY Figure 1. Distribution of Feral Goats in Australia

# **Population size**

An accurate estimate of the feral goat population in Australia is not possible, due mainly to the effects of seasonal conditions and hunting pressure. Females are prolific breeders under favourable climatic conditions and the base population can increase dramatically within a short period.

A recent estimate, of maximum, minimum and most common feral goat numbers in the States of Australia show the respective totals as 2,080,000, 280,000 and a most probable 696,000.

# Diet

The diet selected by feral goats is extremely variable and is principally governed by the choice available. Feral goats are herbivores, and can switch from browsing to grazing and even to foraging for litter to survive. They show a growth and breeding response to flushes of herbage and shrub growth after rain yet are able to select a maintenance ration from shrubs and trees in most areas during dry periods.

In restricted environments, their dietary habits affect tree and shrub regeneration of palatable species.

In semi-arid areas goats add to an already excessive grazing pressure on herbage caused by commercial sheep and cattle enterprises.

# Social structure

Movement of feral goats is caused by the failure of the food or water supply on the home range, by phenomena associated with breeding and by harassment by humans.

Most goats prefer a limited home range, particularly during dry times if there is no alternative water or good feed supplies. During dry periods, large numbers of feral goats come together on water points. This large herd may contain different range groups; the effect upon social and breeding behaviour is not known.

### Social behaviour

Male kids leave their mothers at puberty and run separate in small bachelor herds. As does come into oestrus, during their normal breeding season or following the first rains, the bucks disperse into small harem groups. Purely female only herds may also be found, comprising pregnant does or does not cycling because of poor nutrition. Feral goat herds rest at night in traditional campsites. Composition of groups and attendance at campsites is variable, reflecting seasonal changes in dispersion and male movements.

Feral goats use high or inaccessible areas as campsites probably to reduce risk of predation.

# **Grazing behaviour**

Goats prefer to graze with heads into the wind. Feral goats have been observed feeding out long distances under the influence of wind and then return to their normal night camp.

# Watering behaviour

Drinking frequency is partially influenced by social behaviour, the watering point being one of the main centres of inter-goat encounter in the home range.

### **Body weight**

Individual goats vary considerably in size and weight. At birth, feral kids weigh approximately 2.5 to 3.0 kg with

males tending to be heavier than females. After weaning, growth varies with nutrition, season, breeding activities and age. The average growth rate for males is around 65 g/day at 9 months and to around 40 g/day at 18 months.

# Colour

In Australia the most common goat colour of feral goats is white. Many goats have mutli coloured coats and there is considerable variation within and between populations.

### Disease

Feral goats appear to be relatively free of bacterial diseases except Caseous lymphadenitis (CLA – cheesy gland), which has been detected in small proportions in all abattoir surveys.

Lice and mite infestations are widespread, parasite loads vary among individual animals and among range groups.

### Hazards to domestic stock

The presence of feral goats over large parts of Australia poses certain disease control problems. Goats may act as hosts for certain exotic diseases should these be introduced or they may serve as additional hosts for diseases which already occur in Australia.

Uncontrolled feral goats can damage an environment and have become a menace on some pastoral holdings.

Control and management is essential for proper utilization of goat fibre and goat meat products.

# Cashmere production from feral goats

Recent research results from around Australia provide an estimate of cashmere production levels achieved by mainland feral goats. Figures ranging between nil and 200 grams of total cashmere are the most common. There have been reports of individual feral goats producing 350 grams or more cashmere, but these are exceptional animals.

The following figures were obtained from unselected feral does in their second year of captivity, run at "Avondale" Western Australia.

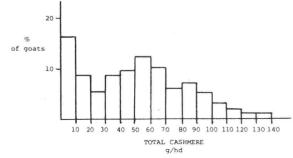


Figure 2. Distribution of Total Cashmere Production from Feral Does Reference:

Goats for Meat and Fibre in Australia S.C.A. Technical Report, Series No. 11.

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