

Rabbits

1. Varietal range difference
2. General biology and normal behaviour
3. Environment
4. Food and water
5. Handling
6. Disease prevention
7. Signs of illness
8. Euthanasia
9. Fate planning
10. Further information

Varietal range difference

Rabbits were once classified as rodents but are now are classified in the Order Lagomorpha, together with hares, pikas and American Cottontail rabbits. The domesticated rabbit was derived from the European wild rabbit, which was introduced to Britain, Australia and New Zealand.

There are a number of varieties of domesticated rabbit, but these can be divided into five main groups:

- Californian and New Zealand White rabbits - large (2-5kg) animals bred for meat and research
- Smaller breeds (up to 2kg) used as pets and research animals
- Long-haired Angora varieties
- Lop-eared rabbits with broad, pendulous ears (2-4kg).
- Giant breeds

European wild rabbits may not be kept as pets and if held illegally may be confiscated by the [Department of Agriculture and Food](#).

Physical characteristics

Size	varies depending on breed
Weight	small breeds approximately 2kg; large breeds 4kg - 8kg; giant breeds can be heavier
Age at adult size	male 6-10 months; female 4-9 months
Average life span	normally 5-10 years, have been known to live to 12
Weight at birth	30g - 100g
Gestation period	30-33 days
Number of offspring	4-10
Weaning age	5-8 weeks
Range of breeding ages	may become sexually mature from 18-22 weeks of age (can be bred from 6-36 months; ideally breeding range is 1-3 years); breeding animals over 6 years is not recommended; on average rabbits breed 4 times per year
Body temperature	38°C - 39°C

Heart rate	150-300 beats/minute (average 220)
Respiration rate	32-65 breaths/minute (average 45)

General biology and normal behaviour

Healthy rabbits have sleek coats, clear, bright eyes and alert ears. The ears are used for cooling the body as well as for hearing. They have powerful rear limbs, which may cause painful scratches if the animal is not restrained properly.

In the wild, rabbits are social animals that live in groups. Domestic rabbits also need companionship with other rabbits and should be housed in compatible groups. Generally, female rabbits are compatible but on puberty (approximately 12-14 weeks of age) male rabbits will commonly begin to fight. Castration before puberty will often prevent problems with fighting.

It is important to maintain a stable group of rabbits, as removing or replacing animals will disrupt hierarchies within the group and can result in serious fighting and resultant injuries.

When establishing new groups of rabbits, young pre-pubescent animals are best. Recommended combinations of groups that provide companionship but control breeding include two compatible females, two desexed males or a female and a desexed male. If a rabbit is housed alone for some reason, it must be able to see and smell other rabbits to reduce stress.

Rabbits housed in wire cages may catch and injure their limbs or develop hock sores. Even though rabbits can sit for hours - or even days - without signs of distress, inactive animals should be checked for injuries.

Stress can be caused by extreme temperature changes, overcrowding and exposure to predators such as cats, dogs, owls, foxes and goannas.

Rabbits have a very light bone structure and are therefore susceptible to fractures, so care should be taken when handling them and in the provision of suitable housing.

Rabbits' teeth grow throughout their lives. To decrease the incidence of dental problems, gnawing blocks should be provided.

Environment

Rabbits may be housed indoors or, in temperate conditions, outdoors, with access to fresh grazing. Outdoor hutching systems should provide a mixture of grazing areas and solid floors.

Whether they are housed indoors or outdoors, rabbits can become agitated if their cages are dirty or they are moved frequently. Those kept indoors should be housed in well-lit and well-ventilated areas, away from draughts, fumes and noise. Rabbits are extremely sensitive to excessive humidity, so cages should be positioned to take this into consideration.

Indoor cages should not be placed:

- near windows, especially during winter or midsummer;
- in direct sunlight;
- in draughts from ventilators, windows or doors;
- in proximity to fumes of any kind,
- over or near heaters; or
- where access is difficult.

Rabbits require a floor area proportional to their size. Overcrowding must be avoided to decrease the probability of fighting and injury.

A rabbit's enclosure should be large enough to allow three hops in one direction. For a large rabbit, this would mean that the cage should measure at least 2000mm in one direction. For two to four large rabbits living together, the minimum floor area should be 2m². For two smaller rabbits, a suitable hutch size is 1800mm in length, 900mm in width and 900mm in height.

Rabbits must be able to stretch upright with their ears fully erect. This means that cages must be a minimum of 450mm (but preferably 750mm) high for smaller rabbits.

For more intensive husbandry practices to be followed in State Training Providers and agricultural colleges with SAEC approval, refer to the [Code of Practice for Keeping Rabbits in Western Australia](#).

The normal mode of movement for a rabbit is hopping. Rabbits need to be provided with enough room to hop. If animals are kept in smaller cages they must be provided with access to exercise pens. These pens need to be secure to prevent the animals from digging out and to protect them from predators.

Rabbits need to have environmental enrichment in the form of toys, sticks, climbing surfaces, retreats and hiding places: for example, cardboard boxes and large plastic pipes.

Rabbits can tolerate temperatures between 5°C and 27°C but for optimum health they should be maintained between 15°C and 20°C. They can become stressed at temperatures above 27°C and may suffer from hyperthermia and die very quickly. Frozen water bottles can help to reduce the incidence of hyperthermia by providing cool surfaces for rabbits to lie against in hot weather. Rabbits should be checked regularly throughout the day in hot weather to ensure that they are not becoming overheated.

Rabbits need well-ventilated, low-humidity environments, away from fumes. If they are housed outdoors, they need to be provided with weatherproof hutches, preferably made of wood. Although metal cages are more durable and easier to clean, in warmer weather (and particularly if they are located in direct sunshine), they heat up very quickly and the rabbits housed in them are highly susceptible to fatal hyperthermia.

Rabbit housing must be secure against predators and, ideally, rabbits should be housed indoors at night.

The bottom of a rabbit house should be a combination of solid flooring and mesh to prevent burrowing. The meshed area should rest on the ground. Rabbits should not be housed on elevated mesh floors, as they can suffer from sore hocks and leg damage unless an area of solid flooring is provided.

It is advisable to cover outdoor hutches with mosquito netting to reduce the chances of the rabbits contracting the mosquito-borne disease myxomatosis.

Rabbits prefer straw, hay or shredded paper as bedding. Coarse sawdust or softwood shavings are also suitable. Ideally, a wood shaving bedding should be 50mm deep and covered with a thick layer of bedding straw.

A week before giving birth, rabbits pull fur from their bodies to line the nesting area.

Rabbits eliminate large quantities of faeces and urine. Their cages should be cleaned daily - or at least every second day - except when a new litter is born. If disturbed within the first week after giving birth, the doe may eat her young.

Cages should be scrubbed, disinfected and rinsed thoroughly at least once a week.

Food and water

Rabbits consume large quantities of food. They should be provided with pellets on demand. Small quantities of good-quality hay and well-washed vegetables are recommended as supplements. Pregnant and lactating does require more food and water.

Rabbits should be provided with a wooden gnawing block to help to wear down their teeth and decrease dental problems.

A clean, fresh and reliable supply of water is necessary. The use of drink bottles with metal sippers is recommended. These should be placed so that the nozzles are about 100mm from the floor. Rabbits can consume approximately 100mL of water per kilogram of body weight per day and this increases during warm weather.

Handling

Rabbits need to be handled calmly and with care to prevent distress and injury to the animals and their handlers.

Features of the design of rabbit houses, such as elevated shelves or nest boxes, should allow rabbits to be reached and restrained easily by handlers.

A well-trained and regularly-handled rabbit will hop quietly around a room if noise and the movement of students are kept to a minimum. Rabbits can, however, inflict serious bite injuries and painful scratches if stressed or not properly restrained.

Never pick a rabbit up by its ears or hind legs: it may break its back. Always use both hands to lift and support a rabbit. Place one hand over the rabbit's shoulders and the other under its rump and scoop it up. Difficult-to-handle rabbits may be grasped gently but firmly by the skin at the back of the neck and the handler's other hand used to support the rump.

Alternatively, rabbits may be wrapped in towels to reduce kicking and scratching. Always use two hands to carry a rabbit and ensure that its weight is supported at all times. Rabbits do not, as a rule, like to be hugged or cuddled, as it makes them feel threatened.

All rabbits need to be groomed regularly and those with long coats daily: they may also require clipping. Angora rabbits must be clipped at regular intervals by experienced handlers.

Disease prevention

Disease control methods and internal and external parasite control programs should be developed in consultation with a veterinarian or a Department of Agriculture officer. All activities must be documented in the appropriate records.

Signs of illness

The first sign noticed is a change in the animal's natural demeanour: it may be listless or lethargic. Closer examination may show variations in:

- body temperature;
- gastrointestinal functions, such as diarrhoea, weight loss or loss of appetite;
- urogenital functions, e.g. abortion, infertility or abnormal discharges, changes in urine volume or frequency; and
- respiratory functions, e.g. persistent coughing, gasping or panting;

or evidence of:

- skin conditions, such as lesions or abnormal growths;

- tucked-up appearance, stiff gait or abnormal posture, patchy coat or loss of hair;
- excessive scratching or rubbing;
- swollen joints or limping; and
- dribbling

Rabbits with any of these symptoms should be isolated from other animals immediately and their cages fully disinfected.

A failure to thrive or grow is another sign of illness.

If an animal shows signs of ill-health or distress, veterinary advice should be sought immediately.

Illnesses, injuries and treatment given must be documented in the appropriate records including the SAEC's [Form C1](#).

Euthanasia

In the case of a rabbit becoming so sick, diseased or injured that recovery is unlikely or undesirable, on humane grounds euthanasia must be arranged with a veterinarian or a person competent in the technique for rabbits.

A record of deaths is required for the annual report, [Form D](#), to SAEC and all deaths resulting from unexpected or adverse events must be reported immediately to the SAEC using [Form C1](#) and [Form C2](#).

Fate planning

A fate plan should be considered before using a rabbit in any program. Rabbits that are no longer required must be re-homed.

Further information

Relevant websites include:

- [American Society for the Prevention of Cruelty to Animals](#)
- [Australian and New Zealand Council for the Care of Animals in Research and Teaching](#)
- [Department of Agriculture and Food](#)
- [Department of Local Government Animal Welfare Codes of Practice](#)
- [RSPCA WA](#)

Relevant texts include:

- Gendron, K. (2000). *The Rabbit Handbook*. New York: Barron's Pet Handbook. McGreevy, P. (2002) *Handle with Care*. Sydney: Halstead Press. Parsons.
- Wendy (2001). *Bunny Business*, *Animals Australia* Vol 12, No 2, p20.
- Snowball, Dianne (1989). *Care for your Pet: an official RSPCA publication*. Malvern, Victoria: Snowball Educational Publications.