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www.rabbitwelfare.co.uk

Environmental Enrichment for Pet Rabbits – How Can the RVN Help Educate Owners?

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Introduction

Sadly, despite being the third most popular pet in Britain, rabbits are still one of the most neglected domestic animals (Rabbit Welfare Association, ND). Many owners simply aren't aware of how to care for rabbits appropriately and the common misconceptions that rabbits belong in hutches and live off muesli and carrots are outdated.

If fundamental steps are followed and we remember exactly what a rabbit is, then enriching their environment and providing them with both mental and physical stimulation need not be challenging. Veterinary nurses are in an excellent position to help educate rabbit owners on their pets' species-specific environmental needs.

The Animal Welfare Act 2006

It is recognised that sentient animals are capable of pain and suffering and so deserve consideration and respect. The British Veterinary Association believes the Five Freedoms are essential to the welfare of any animal kept in captivity (British Veterinary Association, 2014). In short, owners must take positive steps to ensure they care for their animals properly and in particular must provide for the five welfare needs (RSPCA, 2016), which are:

- the need for a suitable environment
- the need for a suitable diet
- the need to be able to exhibit normal behaviour patterns

- the need to be housed with, or apart from, other animals
- the need to be protected from pain, suffering, injury and disease

It is important to remember these freedoms when we advise clients on how they can provide their rabbits with environmental enrichment. In addition to this, under the Animal Welfare Act 2006, all pet owners have a legal duty to meet their rabbit's environmental and behavioural needs. 5 10

What is enrichment?

Enrichment aims to meet an animal's psychological and physical needs by providing an environment that mimics their natural environment and allows them to display natural behaviours, thus improving their well-being. By providing this we aim to decrease unwanted or abnormal behaviours and increase the animal's natural ability to deal with life in captivity. 15 20

Background – wild versus domestic rabbits

Rabbits are intelligent and social creatures. Wild rabbits live in groups of two to eight adults plus juveniles with a defined social hierarchy (McBride, 1988). However, in the domestic setting we still commonly encounter rabbits kept in solitary confinement with little or no thought given to their social and environmental needs. More than half (57%) of rabbit owners report that their rabbit lives alone – equating to around 680,000 rabbits (PDSA, 2015). 25 30 35

In the wild, a rabbit's territory is defended by the males, and the females dig out the warren. Older, heavier males will rank at the top of the hierarchy. They emerge from their burrows at dawn and dusk (in other words, they are *crepuscular*) to graze on vegetation and are always on the lookout for danger.

In comparison, think of a pet rabbit: some are fortunate enough to live in neutered pairs, in large accommodation, but may still not have their environmental needs taken into account. Space and company is not all rabbits require. Others live in small hutches, in solitary confinement with little or no human interaction.

Rabbit clinics and client evenings

Rabbit clinics have many benefits, not only for the owner and rabbit, but also the veterinary practice, and are opportunities for advising owners on how to care for their rabbits correctly. This helps to create bonded clients; clients who bond to a practice are likely to become regular clients and in turn will create revenue for the practice.

By discussing rabbit care with owners before problems arise, not only can we help to improve the rabbit's welfare, but also prevent many health problems from developing.

Discussions during a rabbit clinic should cover:

- housing and exercise
- dietary requirements
- vaccination and preventative health care
- companionship/bonding rabbits
- how to enrich the rabbit's environment

A full health check and discussion of any observed problems, and action plans (for example a weight-loss plan) can also be devised during the consultation, with follow-up appointments made as necessary.

The Rabbit Welfare Association's (RWA) booklet, *On the Hop* (formerly known as *Hop To It*), contains useful information on a variety of rabbit subjects, including health checking, vaccinating, feeding, housing, bonding and handling rabbits, and can be a central point of information for owners. Copies which can be handed out during the rabbit clinic can be obtained by taking out a practice

membership – see www.rabbitwelfare.co.uk for further information.

If you are unable to offer rabbit clinics, then consider running a rabbit client evening. These can be run for little or no monetary outlay. Reps are always happy to provide talks to clients and may be able to offer some sponsorship if catering or venue costs need covering.

Foraging and a natural environment

Wild rabbits spend many hours grazing on vegetation. Rabbits kept domestically may simply spend their entire eating period sitting at a food bowl. This in no way offers any form of stimulation and can contribute to boredom and obesity.

Encourage owners to scatter-feed the rabbit's pellet portion to allow foraging, which is a more natural feeding pattern for rabbits, remembering that the bulk (80%) of the rabbit's diet should be made up of hay and/or grass. Only 5% should be made up of a good-quality pellets, with the remaining 15% consisting of fresh greens. Muesli foods are no longer recommended and have been proven to be a contributing factor to dental disease (Meredith, Prebble & Shaw, 2015). Explaining this to owners and showing them nugget-based foods can help ensure they switch their rabbit onto a better diet.

Remember to explain that this should be done gradually, over at least two weeks, to ensure that there are no digestive problems.

Rabbits prefer a water bowl to a water bottle (Harcourt-Brown, 2011) and to eat hay from the floor rather than a hayrack as it is fulfilling and more natural behaviour (Meredith, Prebble & Shaw, 2015). The opportunity to graze is potentially one of the biggest welfare issues that rabbits face, but one of the easiest for owners to correct.

Digging and chewing are two of the most natural behaviours that rabbits display. In the wild, warrens are dug by the female rabbits (Harcourt-Brown, 2002), but many male rabbits also enjoy digging. This can cause problems with owners who are proud of their gardens or house rabbits who enjoying digging at carpets. However, these behaviours (where appropriate) should be encouraged, not discouraged. They help to prevent and relieve boredom, help to keep claws worn down and also burn off calories, helping to ensure that the rabbits don't become overweight and destructive through boredom.

Ideally, rabbits should have an area in their enclosure in which they can dig freely. Owners need to be careful that the rabbits can't dig out of their enclosure and wire can be buried into the ground if this is likely to be the case. If it is not possible to provide a safe area for digging then large digging boxes can be supplied.



Figure 1. Apple logs and branches are often a favourite for rabbits to strip the bark off

A large plastic dog bed filled with soil or compost makes a suitable digging box.

Objects that encourage chewing, such as apple logs and branches and hazel and willow items, should satisfy the rabbit's desire to chew, and aim to divert any unwanted chewing such as wallpaper (in indoor rabbits) and parts of the hutch (Figure 1).

Hay

Hay must always be freely offered and rabbits should spend several hours a day

eating hay and/or grass. Eating hay not only helps to keep the gastrointestinal tract and teeth healthy, but also relieves boredom. Hay can be offered in a variety of ways and varieties to help keep it interesting for rabbits (Figure 2) and it should be replaced frequently, so it stays fresh and remains unsoiled.

Enclosures

No enclosure can ever be too big! As previously stated, rabbits are crepuscular, so are most active at dawn and dusk.

They spend the rest of the day sleeping and relaxing. The RWA recommends a minimum of 10 ft × 8 ft (3 m × 2.5 m) enclosure for two average-sized pet rabbits. Hutches should be at least 6 ft × 2 ft × 2 ft (1.8 m × 0.6 m × 0.6 m) (Rabbit Welfare Association, ND) and should have free access into an exercise area. The three-hop rule should always apply and should ensure that rabbits can take three consecutive hops (The Rabbit Welfare Association, ND). Hutches should be places for resting and seclusion, and not a prison that rabbits remain locked up in for most of their lives.



Figure 2. Providing hay in paper bags and litter trays can encourage rabbits to eat more



Figure 3. A large, secure enclosure with hay, tunnels and grass to provide enrichment
Credit: Runaround.co.uk

Runaround (www.runaround.co.uk) produces a range of tunnels, tubes, connection kits and warren-type housing which allows the owner to create as natural an environment as possible for their rabbits (Figure 3). This creates a warren-type home, some of which can be buried in the ground, thus providing enrichment and a stable environmental temperature during the warm and cold months of the year.

All enclosures need to be as secure as possible from predators, not only ground-dwelling ones but also from above. Rabbits have been caught by birds of prey, such as buzzards and red kites, and can die from the stress of an attempted attack even if they aren't physically injured.

Company

Rabbits are social creatures that benefit from companionship (Harcourt-Brown, 2002) and should be kept in neutered pairs or small groups. A male and female neutered combination generally works best; two males or two females can bond successfully, but the process is normally much more difficult and has a higher failure rate.

Bonded rabbits will groom each other, sit snuggled together, keep watch for the other, eat together and often play together (Figure 4). None of these natural behaviours can be demonstrated by rabbits kept on their own (Rooney et al., 2014). *It is important to note that rabbits and guinea pigs should not be kept together for health, welfare and dietary needs* (RSPCA, 2016).

It should be noted and explained to owners that bonded rabbits should not be separated, even when one rabbit is ill. What one rabbit has been exposed to the other has also, and separating bonded rabbits can cause an irreversible breakdown in a bond.



▲ **Figure 4.** Bonded rabbits provide support and enrichment for each other
Credit: R. Lamb



▲ **Figure 5.** Many rabbits enjoy being able to throw items around



▲ **Figure 6.** Tunnels, toys, hay and items to chew provide stimulation
Credit: R. Lamb

Bonding rabbits

One of the single most natural behaviours for rabbits is to live with others. Wild rabbits live in large groups, and a single rabbit is a lonely rabbit. Even those rabbits kept as house rabbits still require the company of another rabbit, because the owner is unlikely to be at home to be able to spend adequate time with the rabbit.

Whatever the combination, it is imperative that both rabbits are neutered. Rabbits do not bond based on looks, age or size. Rabbits rely upon scent to recognise each other and will bond successfully if their personalities are compatible. Two dominant or two submissive rabbits are likely to fight.

Bonding must be attempted on neutral ground to help ensure a successful outcome. Many rescue centres will offer owners a 'bonding service' if they are bonding to one of their rabbits. Thousands of rabbits end up in rescue centres each year. Many are neutered and vaccinated prior to being rehomed. If your clients are looking to get a companion for one of their existing rabbits then give them contact details for local rescue centres.

Toys

Rabbits are highly intelligent and a bored rabbit can rapidly become destructive. Many rabbits enjoy playing with toys (**Figure 5**) or solving puzzles, especially if food is the reward! There are a variety of toys designed for rabbits in pet shops or simple and cheap toys can be easily made. The inner cardboard rolls from toilet or kitchen rolls stuffed with hay make good toys for rabbits to throw around. Some rabbits also enjoy rolling a football around.

Many rabbits enjoy running through or sleeping in tunnels (**Figure 6**), possibly due to the fact that these have more than one entrance and exit, which helps to make the rabbit feel safe. These can be obtained relatively cheaply from DIY stores. A cardboard box with at least two holes cut into it can do the same job, and they are a welcome addition to an environment. Some rabbits enjoy being able to assess their domain and like the opportunity to sit on top of boxes or shelves (ensuring these are not too high off the ground in case the rabbit falls).

Points to remember

1. Rabbits are social and need the company of their own kind.
2. Two bonded rabbits exhibit natural behaviours, such as grooming each other, and offering support by making each other feel safe.
3. Foraging for food provides physical and mental stimulation.
4. Hay must be provided at all times.
5. Digging and chewing are natural behaviours and should be encouraged within a safe environment.
6. Rabbits need a large enclosure and a hutch should be a resting place and not a prison.
7. Hutches should allow three consecutive hops and the rabbit should be able to stand on its hind legs.
8. Rabbit clinics and client evenings are ideal opportunities to help educate owners.
9. Rabbits like toys, tunnels, items to throw, boxes and shelves to sit on, to keep them entertained.
10. Enclosures must be predator- and escape-proof.

Conclusion

Rabbits need both mental and physical stimulation to be able to live a happy life in captivity. These needs are often overlooked, but veterinary nurses are at the forefront of being able to encourage owners to think about what enrichment they can provide for their rabbits.

References

- www.rabbitwelfare.co.uk
- <http://www.bva.co.uk/News-campaigns-and-policy/Policy/Ethics-and-welfare/Animal-welfare/>
- <http://www.rspca.org.uk/whatwedo/changingthelaw/whatwechanged/animalwelfareact>
- <http://www.rspca.org.uk/adviceandwelfare/pets/rabbits/company/rabbitsandguinea pigs>
- McBride, A. (1988). *Rabbits and hares*. Essex: Whittle Books Ltd.
- Harcourt-Brown, F. (2002). *Textbook of rabbit medicine*. Oxford: Butterworth-Heinemann.
- Meredith, A., Prebble, J., & Shaw, D. (2015). Impact of diet on incisor growth and attrition and the development of dental disease in pet rabbits. *Journal of Small Animal Practice*, 56, 377–382.
- PDSA PAW Report 2015. Page 7.
- Harcourt-Brown, F. (2011). Importance of water intake in rabbits. *Veterinary Record*, 168, 185–186.
- Rooney, N. J., Blackwell, E. J., Mullan, S. M., Saunders, R., Baker, P. E., Hill, J. M., ... Held, S. D. E. (2014). The current state of welfare, housing and husbandry of the English pet rabbit population. *BMC Research Notes*, 7, 942.

Multiple Choice Questions

1. What year was the Animal Welfare Act introduced?

- (a) 2000
- (b) 2002
- (c) 2006
- (d) 2010

2. What percentage of a rabbit's diet should be made up of grass and hay?

- (a) 10%
- (b) 80%
- (c) 100%
- (d) 50%

3. Rabbits are crepuscular. This means they are active during:

- (a) Dawn and dusk
- (b) Night
- (c) Daytime
- (d) All the time

4. In the wild what rabbits are normally responsible for digging the warrens?

- (a) Females
- (b) Males
- (c) Juveniles
- (d) All rabbits

5. What size enclosure does the RWA recommend as a minimum size for 2 medium sized rabbits?

- (a) 4ft x 4ft
- (b) 6ft x 2ft

- (c) 8ft x 6ft
- (d) 10ft x 8ft

6. Changes to a rabbit's diet should be done over at least?

- (a) 2 hours
- (b) 2 days
- (c) 2 weeks
- (d) 2 months

7. What is the minimum amount of consecutive hops that hutches should allow?

- (a) Three
- (b) Seven
- (c) Two
- (d) Five

For the answers to the MCQs, please go to: <http://www.bvna.org.uk/publications/veterinary-nursing-journal>