





BVA, BVZS and BSAVA policy position on housing pet rabbits in compatible pairs or groups

Executive summary

BVA, BVZS and BSAVA recommend the housing of pet rabbits in compatible pairs or groups.¹ Provision of companionship, through both opposite sex and same-sex pairing, greatly increases positive health and welfare outcomes for rabbits, who have evolved to live socially with others of their species.

We recommend that where pet rabbits of the opposite sex are kept together in compatible pairs or groups, both rabbits should be neutered. Neutering the male reduces undesirable sexual mounting behaviour and hormonally related aggression, and neutering the female rabbit will not only prevent pregnancies but can also have potential health benefits by protecting the female from uterine lesions. ^{2,3,4,5} Neutering should be performed with adequate analgesia should be given to an animal pre- and post-operatively.

For male rabbits, young rabbits can be neutered as soon as their testicles descend (10-12 weeks) and female rabbits can be neutered from 4-6 months of age. As neutering is not a trivial procedure, we would advise that owners discuss the health and welfare benefits and risks for the individual animal in question with their veterinary surgeon.

There should be greater awareness of the health and welfare benefits of companionship for pet rabbits⁶ and that pet rabbits should be housed in in compatible pairs. Stakeholders in rabbit health and welfare ie. the veterinary profession, owners, breeders, vendors, animal welfare organisations and the UK governments, should therefore work together to achieve improved provision of companionship for pet rabbits. Our specific recommendations as to how to achieve this are set out below:

¹ See 'Compatible pairs or groups' section of full position for further information on compatible pairings and groupings of rabbits.

² RWAF. Neutering-Castration or Spaying. Available at: https://rabbitwelfare.co.uk/rabbit-health/neutering/

³ BVA, BVZS and BSAVA acknowledge that neutering is not a trivial procedure but the welfare implications of neutering are outweighed by the benefits. The decision as to whether to neuter the individual animal for medical or behavioural reasons needs to take into account factors such as species, gender, breed and age of the animal as well as current and future health status. There is no evidence that neutering a male rabbit provides greater benefit to the individual by leaving it entire. The opposite is true in females. Neutering should be performed with adequate anaesthesia and analgesia should be given to an animal pre-emptively and post-operatively. Veterinary advice should always be sought regarding the risks and benefits in individual cases. There are now a number of options regarding the timing and methods of neutering and these options should be discussed between the owner and veterinary surgeon when making decisions for an individual animal. The RWAF provide more information on neutering-castrating and spaying rabbits on their website.

⁴Bradbury, G., Dickens, G. (2017) Neutering of pet rabbits Veterinary Record 180, 77-78. Available at: https://veterinaryrecord.bmj.com/content/180/3/77.1

⁵Lee HW, Machin H, Adami C. Peri-anaesthetic mortality and nonfatal gastrointestinal complications in pet rabbits: a retrospective study on 210 cases. Vet Anaesth Analg. 2018 Jul;45(4):520-528. doi: 10.1016/j.vaa.2018.01.010. Epub 2018 Feb 27. PubMed PMID: 29759902.

⁶ Edgar, JL., Mullan, SM. (2011) Knowledge and attitudes of 52 UK pet rabbit owners at the point of sale Veterinary Record 168, 353. Available at: https://veterinaryrecord.bmj.com/content/168/13/353.short

Recommendation 1: BVA, BVZS and BSAVA recommend the housing of pet rabbits in compatible pairs or groups⁷.

Recommendation 2: Pet rabbits should not be housed with guinea pigs. If a rabbit is currently housed with a guinea pig, this should not be changed until one of the animals dies and a hiding place that is only accessible to the guinea pig must be provided.

Recommendation 3: Where pet rabbits of the opposite sex are kept in compatible pairs or groups, both rabbits should be neutered. However, as neutering is not a trivial procedure, we would advise that owners discuss the health and welfare benefits and risks for the individual animal in question with their veterinary surgeon.

Recommendation 4: If a companion dies, the remaining solitary rabbit should either be bonded to a new (preferably adopted) rabbit, kept with restricted access to another rabbit with visual, olfactory, auditory and tactile contact, or, as a last resort, kept as a solitary rabbit for the rest of its life. This choice will depend on the age, health and welfare of the current rabbit, as well as the availability of rabbits locally. All solitary rabbits must be provided with suitable enrichment. In making a decision, expert veterinary guidance should be sought.

Recommendation 5: All rabbits should be carefully monitored and expert veterinary advice regarding management and housing should be sought if rabbits start to demonstrate signs of aggression, stress or ill-health.

Recommendation 6: The provision of companionship and adequate space is equally as important for house rabbits as for outdoor pet rabbits. Nevertheless, it is important to emphasise that indoor spaces may require modification to safeguard rabbit health and welfare and should be 'rabbit-proofed'.

Recommendation 7: Industry voluntary codes of practice should encourage vendors to sell pet rabbits in compatible pairs or groups

Recommendation 8: Vendors of pet rabbits and rabbit housing should ensure that hutches for sale can sufficiently house two or more rabbits and meet the minimum recommended measurements for suitable shelter to facilitate provision of companionship at point of purchase.

Recommendation 9: Across the UK, reviewed animal vending legislation should be supported by pet rabbit welfare codes of practice to encourage the provision of companionship for pet rabbits and the purchasing of pet rabbits, are in compatible pairs or groups.

Recommendation 10: In parts of the UK where animal vending legislation is currently under review, the provision of animal welfare information to prospective owners, including appropriate housing and socialisation, should become a licensing requirement where criteria are based on expert advice and input.

Recommendation 11: In parts of the UK where animal vending legislation is currently under review, licensing requirements should ensure that vendors must record why pet rabbits are sold individually as opposed to in neutered, compatible pairs or groups eg. to create a compatible pair with an existing single rabbit or where a rabbit is considered too young for neutering.

Recommendation 12: Vendors must inform purchasers of best practice and, if purchasing a single rabbit, that this is only acceptable in certain circumstances (as outlined above) for health and welfare reasons, which should be clearly defined in any animal vending legislation supporting guidance. Vendors should also check that prospective owners have a supporting care plan in place for the single housed rabbit.

Recommendation 13: UK Governments should include appropriately detailed information about how to provide a suitable environment for pet rabbits, both indoors and outdoors, in Government Codes of Practice and welfare guidance.

Recommendation 14: As much space as possible should be provided for pet rabbit housing and enclosure, both indoors and outdoors. It is widely recognised that the minimum

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⁷ It is important to recognise that there may be situations where it is not appropriate to pair or group rabbits, see 'Compatible pairs or groups' section of full position for further information on compatible pairings and groupings of rabbits.

recommended size for a suitable shelter for 2 small or medium breed rabbits is 6ft x 2ft x 2ft (180cm x 60cm x 60cm) and an 8ft run, with the minimum total area required for 2 average-sized rabbits being 10ft (3m) x 6ft (180cm) x 3ft (90cm) high. 8910 However it is important to recognise that required space will differ depending on the size and number of rabbits, if there is uncertainty as to how much space should be provided, expert veterinary advice should be sought.

Recommendation 15: Veterinary surgeons should enable the housing of pet rabbits in compatible pairs through their own clinical practice and decision-making eg. through risk-based neutering of rabbits to support the housing of rabbits in opposite sex pairs (or same sex pairs under certain circumstances) and the keeping of rabbits in compatible pairs or groups when they are admitted for procedures. As part of this, rabbits should be housed away from predatory species and good biosecurity should be maintained.

Recommendation 16: RCVS Practice Standards Scheme should include reference to veterinary surgeons enabling the housing of pet rabbits in compatible pairs or groups through their own clinical practice and decision-making.

Recommendation 17: Rabbit medicine and husbandry should be better integrated into the veterinary curriculum and teaching streams to better equip primary care practitioners to confidently manage pet rabbit health and welfare and educate prospective owners about the importance of housing pet rabbits in compatible pairs or groups.

Recommendation 18: Veterinary practices should educate prospective owners about the importance of companionship for pet rabbit health and welfare through the provision of prepurchase consultations.

Recommendation 19: Veterinary associations should continue to work collaboratively with rabbit health and welfare stakeholders on national campaigns to improve awareness of the importance of housing pet rabbits in compatible pairs or groups.

⁸ PDSA, Creating the ideal home for your rabbits. Available at: https://www.pdsa.org.uk/taking-care-of-your-pet/looking-after-your-pet/rabbits/creating-the-ideal-home-for-your-rabbits

⁹ RWAF. Why a hutch is not enough. Available at: https://rabbitwelfare.co.uk/rabbit-housing/why-hutch-not-enough/

¹⁰ Scottish Government, 2018. Pet Rabbit Welfare Guidance. Available at: https://www.gov.scot/Resource/0053/00533983.pdf

BVA, BVZS and BSAVA policy position on housing pet rabbits in compatible pairs or groups

Introduction

BVA, BVZS and BSAVA recommend the housing of pet rabbits in compatible pairs or groups. ¹¹ Provision of companionship, through both opposite sex and same-sex pairing, greatly increases positive health and welfare outcomes for rabbits, who have evolved to live socially with others of their species.

With this in mind, there should be greater awareness of the health and welfare benefits of companionship for pet rabbits¹² and that the housing of pet rabbits in compatible pairs or groups should be encouraged. Stakeholders in rabbit health and welfare ie. the veterinary profession, owners, breeders, vendors, animal welfare organisations and the UK governments, should therefore work together to achieve improved provision of companionship for pet rabbits.

The importance of companionship for pet rabbits as part of a holistic approach to welfare

Under the UK Animal Welfare Acts, keepers and owners are required to meet the five welfare needs of the animals under their care. These five welfare needs 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

With this in mind, pet rabbit keepers should be aware that, as an owner, it is their legal responsibility to ensure that they meet all of the five welfare needs for the rabbits in their care, including the need to be 'housed with, or apart from' other animals compatible with their species. For pet rabbits, evidence supports that this welfare need should be met through the provision of appropriate companionship and the housing of pet rabbits in compatible pairs or groups.

Evidence has illustrated the importance of companionship for the below areas of physical and emotional health and welfare of pet rabbits:

Company – Rabbits are sociable animals, traditionally living in colonies in the wild. Research has shown the importance of social opportunity for rabbits, with rabbits being shown to actively seek out the company of other rabbits in preference to food. ¹³ ¹⁴

¹¹ See 'Compatible pairs and groups' section of this position for further information on compatible pairings and groupings of rabbits.

Edgar, JL., Mullan, SM. (2011) Knowledge and attitudes of 52 UK pet rabbit owners at the point of sale Veterinary Record 168, 353. Available at: https://veterinaryrecord.bmj.com/content/168/13/353.short
 Seaman, S.C., Waran, N.K., Mason, G. and D'Eath, R.B., 2008. Animal economics: assessing the motivation of female laboratory rabbits to reach a platform, social contact and food. *Animal Behaviour*, 75(1), pp.31-42.
 Stapleton, N., 2016. Stranger danger: the importance and perils of companionship in rabbits. The Veterinary Nurse, 7(4), pp.206–212. Available at: http://www.theveterinarynurse.com/cgibin/go.pl/library/article.cgi?uid=107590;article=_7_4_206

Health – Rabbits kept in pairs or groups tend to be healthier as they are able to groom each other. Mutual grooming enables rabbits to clean places on the body that a solitary rabbit would be unable to reach themselves and reach sites on the body that would otherwise be left susceptible to infection and other conditions, eg. anecdotally it is common to see signs of ocular disease present in the surviving rabbit upon the death of a companion.

Regulation of body temperature – Rabbits living in pairs or groups are able to share body warmth in cold temperatures, which is particularly significant given that over 71% of UK pet rabbits live outdoors or in unheated sheds or out-houses. ¹⁵ Evidence indicates that solitary rabbits have significantly reduced body temperature. ¹⁶

Behaviour – Rabbits kept in pairs or groups are able to undertake mutual grooming which is a vital natural behaviour. Sharing vigilance behaviours between two or more rabbits also allows for greater physical and mental security.

Emotional Health – In the wild, rabbits, as prey species, naturally rely on each other for 'safety in numbers', an instinct which is still present in domestic rabbits. Solitary rabbits haven been shown to suffer from greater stress responses than rabbits that are housed socially^{17, 18} and anecdotally depression-like behaviour has also been observed in rabbits when their companion has died although this is subject to variability.

Improving provision of companionship for pet rabbits

Compatible pairs and groups

With over 54% of pet rabbits in the UK still living alone¹⁹, it is paramount that prospective keepers are encouraged to keep pet rabbits in opposite- or same-sex, neutered, pairs or groups.

Same-sex pairing should consist of siblings or two rabbits taken from different litters that are both between 8-10 weeks old to avoid fighting and ideally same-sex pairs should never be separated. We would advise that same-sex pairing of rabbits should be undertaken with expert veterinary advice as there is more potential for serious fighting than when introducing opposite sex pairs and neutering must be considered as part of decision-making.

Pet rabbits should not be housed with guinea pigs. Guinea pigs have different dietary needs to rabbits, are smaller and less powerful than rabbits and are at risk of injury. Further, rabbits may carry the bacteria *Bordetella bronchiseptica*, which is a respiratory pathogen for guinea pigs. In addition, guinea pigs cannot perform the natural sociable function of another rabbit eg. mutual grooming.

Whilst pet rabbits may seem to interact neutrally or positively with predator species (eg. dogs and cats), and may even seem dominant over them, they can suddenly be perceived as prey animals, particularly to dogs, with fatal consequences. As such, pet rabbits should not interact with predator species such as cats or dogs.

It is also important to recognise that there may be circumstances where it is not appropriate to pair rabbits, for example where rabbits demonstrate aggression towards each other. We would therefore recommend the careful monitoring of paired or grouped pet rabbits and that expert veterinary advice

¹⁵ Rooney et al., 2014. The current state of welfare, housing and husbandry of the English pet rabbit population. *BMC Research Notes 2014* 7:942. Available at: https://doi.org/10.1186/1756-0500-7-942

¹⁶ Burn C. C. & Shields, P., 2015. Do rabbits need each other? Effects of social versus solitary housing on rabbit behaviour, thermoregulation and response to challenges. Association for the Study of Animal Behaviour (ASAB) Summer Conference, Lincoln.

 $^{^{17}}$ Schepers , F. , Koene , P. , & Beerda , B.,2009. Welfare assessment in pet rabbits. Animal Welfare 18, $477-485\,$

¹⁸ Burn C. C. & Shields, P., 2015. Do rabbits need each other? Effects of social versus solitary housing on rabbit behaviour, thermoregulation and response to challenges. Association for the Study of Animal Behaviour (ASAB) Summer Conference, Lincoln.

¹⁹ PDSA, 2018. PDSA Animal Wellbeing Report 2018. Available at: https://www.pdsa.org.uk/media/4371/paw-2018-full-web-ready.pdf

is sought regarding appropriate management and housing if paired pet rabbits start to demonstrate signs of aggression, stress or ill-health.

Neuterina

We recommend that where pet rabbits of the opposite sex are kept together in compatible pairs or groups, both rabbits should be neutered. Neutering the male reduces undesirable sexual mounting behaviour and hormonally related aggression, and neutering the female rabbit will not only prevent pregnancies but can also have potential health benefits by protecting the female from uterine lesions. Neutering should be performed with adequate analgesia should be given to an animal pre- and post-operatively.

For male rabbits, young rabbits can be neutered as soon as their testicles descend (10-12 weeks) and female rabbits can be neutered from 4-6 months of age. As neutering is not a trivial procedure, we would advise that owners discuss the health and welfare benefits and risks for the individual animal in question with their veterinary surgeon.

Introducing pet rabbits

Neutered rabbits under 10-12 weeks of age and older neutered rabbits who have bonded (this can be recognised by an initial lack of interest when first introduced followed by individual grooming, then progressing to mutual grooming and sitting together) can live together immediately. All other combinations of rabbits should be carefully and gradually introduced.²³ ^{24, 25}

When introducing pet rabbits, it is important to consider sex, age, breed, enclosure size, and husbandry system.

For more information on safely introducing pet rabbits, please consult the 5-point guide to introducing rabbits available in the The Rabbit Welfare Association and Fund's On the Hop: The RWAF guide to rabbit welfare or consult a veterinary surgeon. ²⁶

If a companion dies, the remaining solitary rabbit should either be bonded to a new (preferably adopted) rabbit, kept with restricted access to another rabbit with visual, olfactory, auditory and tactile contact, or, as a last resort, kept as a solitary rabbit for the rest of its life. As this choice will depend on the age, health and welfare of the current rabbit, as well as the availability of rabbits locally, expert veterinary guidance should be sought. ²⁷

Recommendation 1: BVA, BVZS and BSAVA recommend the housing of pet rabbits in compatible pairs or groups.

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²⁰ RWAF. Neutering-Castration or Spaying. Available at: https://rabbitwelfare.co.uk/rabbit-health/neutering/
²¹ BVA, BVZS and BSAVA acknowledge that neutering is not a trivial procedure but the welfare implications of neutering are outweighed by the benefits. The decision as to whether to neuter the individual animal for medical or behavioural reasons needs to take into account factors such as species, gender, breed and age of the animal as well as current and future health status. There is no evidence that neutering a male rabbit provides greater benefit to the individual by leaving it entire. The opposite is true in females. Neutering should be performed with adequate anaesthesia and analgesia should be given to an animal pre-emptively and post-operatively. Veterinary advice should always be sought regarding the risks and benefits in individual cases. There are now a number of options regarding the timing and methods of neutering and these options should be discussed between the owner and veterinary surgeon when making decisions for an individual animal. The RWAF provide more information on neutering-castrating and spaying rabbits on their website.

²²Bradbury, G., Dickens, G. (2017) Neutering of pet rabbits *Veterinary Record* **180**, 77-78. Available at: https://veterinaryrecord.bmj.com/content/180/3/77.1

²³ Saunders, R, 2014. BSAVA Manual of Rabbit Medicine and Surgery (eds. A Meredith and B Lord). BSAVA Publications: Gloucester. Page 19This is out of print; more recent reference??

²⁴ Szendro, Zs. et al., 2013. Comparison of performance and welfare of single-caged and group-housed rabbit does. Animal (2013), 7:3, pp 463–468 doi:10.1017/S1751731112001760

²⁵ Nevalainen, T.O. et al., 2006 Pair housing of rabbits reduces variances in growth rates and serum alkaline phosphatase levels. *Laboratory Animals* 41, 432–440

²⁶ The Rabbit Welfare Association and Fund (RWAF) hosts a <u>'Rabbit Friendly Vet List'</u>, detailing the contact details and location of practices with specialist expertise in rabbit health and welfare.

²⁷ Ibid.

Recommendation 2: Pet rabbits should not be housed with guinea pigs. If a rabbit is currently housed with a guinea pig, this should not be changed until one of the animals dies. A hiding place that is only accessible to the guinea pig must be provided.

Recommendation 3: Where pet rabbits of the opposite sex are kept in compatible pairs or groups, both rabbits should be neutered. However, as neutering is not a trivial procedure, we would advise that owners discuss the health and welfare benefits and risks for the individual animal in question with their veterinary surgeon.

Recommendation 4: If a companion dies, the remaining solitary rabbit should either be bonded to a new (preferably adopted) rabbit, kept with restricted access to another rabbit with visual, olfactory, auditory and tactile contact, or, as a last resort, kept as a solitary rabbit for the rest of its life. This choice will depend on the age, health and welfare of the current rabbit, as well as the availability of rabbits locally. All rabbits must be provided with suitable enrichment. In making a decision, expert veterinary guidance should be sought.

Recommendation 5: All rabbits should be carefully monitored and expert veterinary advice regarding management and housing should be sought if rabbits start to demonstrate signs of aggression, stress or ill-health.

Indoor pet rabbit housing

We recognise that housing pet rabbits indoors can achieve positive health and welfare outcomes.²⁸ However, to achieve positive welfare outcomes the provision of companionship and adequate space remains equally as important for house rabbits as for outdoor pet rabbits. It is also important to emphasise that indoor spaces may require modification to safeguard rabbit health and welfare and should be 'rabbit-proofed'. With this in mind, indoor spaces should be modified to ensure that pet rabbits are safe from:

- Other pets for example, predator species such as dogs or cats. As highlighted above, rabbits can be perceived as prey animals, particularly to dogs, with potentially fatal consequences
- House plants that may be poisonous to avoid rabbits ingesting potentially poisonous houseplants, plants should be kept out of reach
- **Electric wires** to avoid rabbits chewing through wires and the risk of electrocution, wires should be kept away from rabbits or covered with cable protector
- Auditory stressors for example, loud music or television noise
- Smoking to prevent the impact of passive smoking
- Objects hot to the touch that could cause overheating or a potential fire hazard –
 owners are advised to avoid using appliances that get extremely hot eg. irons, hair
 straighteners, radiators or lit candles in rooms that rabbits can gain access to.
- Escaping into a potentially dangerous outside environment consideration should be given as to how to prevent rabbits from escaping into potentially dangerous situations outside of the indoor space in which they are kept eg. busy roads or rooms within the house with other pets etc. As part of this, it is important to consider that rabbits can squeeze through small spaces and are able to jump high.
- Entrapment under foot owners and those living at or visiting the property are encouraged to be mindful of treading on house rabbits who may place themselves by the feet.

Similarly, to outdoor pet rabbits, house rabbits will require places to hide in order to feel safe and secure. In addition, consideration should be given to the appropriate temperature adjustments required to ensure that rabbits do not overheat eg. in conservatories, or when transitioning an outdoor rabbit to be housed indoors eg. first introducing the rabbit into an unheated room and gradually increasing the temperature. ²⁹

Recommendation 6: The provision of companionship and adequate space is equally as important for house rabbits as for outdoor rabbits. Nevertheless, it is important to emphasise

²⁸ Equally, it is important to recognise that evidence indicates that house rabbits have lower concentrations of Vitamin D due to lack of exposure to natural light and can therefore be more likely to suffer from dental disease. (Harcourt-Brown, F, 2002. The Text Book of Rabbit Medicine. Pp. 165-205.)

²⁹ RWAF, Indoor Rabbit Housing. Available at: https://rabbitwelfare.co.uk/rabbit-housing/indoor-rabbit-housing/

that indoor spaces may require modification to safeguard rabbit health and welfare and should be 'rabbit-proofed'.

Opportunities within the current legislative landscape

Animal Welfare (Licensing of Activities Involving Animals) (England) (2018) Regulations

In addition to the UK Animal Welfare Acts, the Animal Welfare (Licensing of Activities Involving Animals) (England) (2018) Regulations require that anyone selling animals must provide the prospective owner with appropriate information as to how to meet their five welfare needs, including housing. This provides breeders and vendors with the opportunity to provide prospective pet rabbit owners with high-quality information as to the need for rabbits to be housed in compatible pairs or groups and encourage prospective owners to only buy rabbits in compatible pairs or groups.

The below extract from the <u>Defra supporting guidance on Selling animals as pets</u> sets this requirement out specifically:

"Pet care leaflets or other similar written or electronic instructions, given at the point of sale to the general public, in addition to outlining the Five Welfare Needs, must encourage responsible pet ownership and ideally make reference to an owner's obligations as per the Animal Welfare Act (2006). Staff have the right to refuse a sale if they are concerned and/or are not satisfied to the best of their knowledge that the prospective owner is able to meet that animal's welfare needs."

The guidance also specifies that vendors should encourage the sale of rabbits in pairs or compatible groups where appropriate, and should not be housed with guinea pigs:

Extract from Defra supporting guidance on Selling animals as pets on rabbits

3.0 Prospective Sales: pet care and advice

 Where sold singly, the licence holder and/or staff must ask if the purchaser owns a suitable conspecific and if not, encourage them to purchase one, or check that they have a care plan in place for a single housed rabbit. This must also include advice on vaccinations and reproductive health care."

11.0 Animal Handling and Interactions

- All efforts must be made to ensure rabbits are not housed singly. Where this is unavoidable, special attention must be paid to specific human interaction and they must be provided with extra enrichment. A plan must be in place for all singly housed rabbits.
- Rabbits must not share accommodation with guinea pigs"

Recommendation 7: Industry voluntary codes of practice should encourage vendors to sell pet rabbits in compatible pairs or groups.

Recommendation 8: Vendors of pet rabbits and rabbit housing should ensure that hutches for sale can sufficiently house two or more rabbits and meet the minimum recommended measurements for suitable shelter to facilitate provision of companionship at point of purchase.

Recommendation 9: Across the UK, reviewed animal vending legislation should be supported by pet rabbit welfare codes of practice to encourage the provision of companionship for pet rabbits and the purchasing of pet rabbits, where practical or necessary, are in compatible pairs or groups.

Recommendation 10: In parts of the UK where animal vending legislation is currently under review, the provision of animal welfare information to prospective owners, including appropriate housing and socialisation, should become a licensing requirement where criteria are based on expert advice and input.

Recommendation 11: In parts of the UK where animal vending legislation is currently under review, licensing requirements should ensure that vendors must record why pet rabbits are sold individually as opposed to in neutered, compatible pairs or groups eg. to create a compatible pair with an existing single rabbit or where a rabbit is considered too young for neutering.

Recommendation 12: Vendors must inform purchasers of best practice and, if purchasing a single rabbit, that this is only acceptable in certain circumstances (as outlined above) for health and welfare reasons, which should be clearly defined in any animal vending legislation supporting guidance. Vendors should also check that prospective owners have a supporting care plan in place for the single housed rabbit.

Recommendation 13: UK Governments should include appropriately detailed information about how to provide a suitable environment for pet rabbits in Government Codes of Practice and welfare guidance.

Ensuring sufficient space

As much space as possible should be provided for pet rabbit housing and enclosure, both indoors and outdoors.³⁰ It is widely recognised that **the minimum recommended size for a suitable shelter for 2 small or medium breed rabbits is 6ft x 2ft x 2ft (180cm x 60cm x 60cm) and an 8ft run, with the minimum total area required for 2 average-sized rabbits being 10ft (300cm) x 6ft (180cm) x 3ft (90cm) high.^{31 32 33} However it is important to recognise that required space will differ depending on the size and number of rabbits, if there is uncertainty as to how much space should be provided, expert veterinary advice should be sought.**

It is important to stress that these measurements are a minimum, owners should aim to provide as much space for pet rabbit housing and enclosures as possible in particular if there is more than one rabbit in an enclosure. In addition, other important aspects of housing should be considered. Quality of space should be considered as important as quantity of space and all pet rabbits should be provided with appropriate and sufficient enrichment materials. This should include the provision of the following:

- Hiding places
- Enrichment materials
- Suitable substrate such as grass or hay to avoid foot problems
- Suitable water containers ie bowls are better than drinkers
- A secure space outside of the enclosure(s) mentioned above to allow for periods of daily exercise.

With this in mind, in order to help owners and keepers adequately meet the welfare needs of the pet rabbits under their care as set out in the UK Animal Welfare Acts, we strongly support the inclusion of appropriately detailed information about how to provide a suitable environment for pet rabbits in Government Codes of Practice and welfare guidance^{34,35}.

Recommendation 14: As much space as possible should be provided for pet rabbit housing and enclosure, both indoors and outdoors. It is widely recognised that the minimum recommended size for a suitable shelter for 2 small or medium breed rabbits is 6ft x 2ft x 2ft (180cm x 60cm x 60cm) and an 8ft run, with the minimum total area required for 2 average-

³⁰Dixon,L., et al., 2010. The effects of spatial restriction on the behavior of rabbits (Oryctolagus cuniculus), *Journal of Veterinary Behavior*, Volume 5, Issue 6, pp. 302-308. Available at: https://www.sciencedirect.com/science/article/pii/S1558787810001024

³¹ PDSA, Creating the ideal home for your rabbits. Available at: https://www.pdsa.org.uk/taking-care-of-your-pet/looking-after-your-pet/rabbits/creating-the-ideal-home-for-your-rabbits

³² RWAF. Why a hutch is not enough. Available at: https://rabbitwelfare.co.uk/rabbit-housing/why-hutch-not-enough/

³³ Scottish Government, 2018. Pet Rabbit Welfare Guidance. Available at: https://www.gov.scot/Resource/0053/00533983.pdf

³⁴ Welsh Government, 2009. Rabbit Welfare Code of Practice. Available at:

https://beta.gov.wales/sites/default/files/publications/2017-11/rabbit-welfare-code-of-practice.pdf ³⁵ Scottish Government, 2018. Pet Rabbit Welfare Guidance. Available at:

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sized rabbits being 10ft (3m) x 6ft (180cm) x 3ft (90cm) high. 36 37 38 However it is important to recognise that required space will differ depending on the size and number of pet rabbits, if there is uncertainty as to how much space should be provided, expert veterinary advice should be sought.

The role of the veterinary profession

As credible and trusted leaders in animal health and welfare, the veterinary professions should take action at individual, community and national level to influence the uptake of social housing in rabbits. This could be achieved through:

- Individual level Veterinary surgeons undertaking CPD so as to better inform clinical practices and decision-making that support the housing of pet rabbits in pairs or compatible groups eg. through neutering rabbits to allow for the housing of pet rabbits in opposite sex pairs (or same sex pairs under certain circumstances) and the keeping of pet rabbits in pairs or compatible groups when they are admitted for procedures. Specific CPD on general anaesthesia practices should be considered and owners should be advised on the potential advantages and disadvantages of neutering pet rabbits eg optimum age, risks, impact on health and wellbeing for both does and bucks.³⁹ All relevant practice members should be aware of best practice to ensure an holistic practice approach to pet rabbit welfare. Equally, veterinary schools should better integrate rabbit medicine into the veterinary curriculum and teaching streams to fully equip general practitioners to confidently manage pet rabbit health and welfare and educate prospective owners about the importance of housing pet rabbits in compatible pairs or groups.⁴⁰
- Community level Veterinary practices educating prospective owners about the importance of housing pet rabbits in compatible pairs or groups for rabbit health and welfare through the provision of pre-purchase consultations.
- National level Veterinary associations supporting and harnessing the influence of the veterinary
 professions by working collaboratively with rabbit health and welfare stakeholders on national
 campaigns to improve awareness of the importance of housing pet rabbits in compatible pairs or
 groups eg. Rabbit Awareness Week
- Research Continuing research by veterinary academics or scientific research institutions in line
 with recognised methodologies used to evaluate environmental enrichment intended to enhance
 animal welfare.^{41, 42}

Recommendation 15: Veterinary surgeons should enable the housing of pet rabbits in compatible pairs through their own clinical practice and decision-making eg. through risk-based neutering of rabbits to support the housing of rabbits in opposite sex pairs (or same sex pairs under certain circumstances) and the keeping of rabbits in compatible pairs or

³⁶ PDSA, Creating the ideal home for your rabbits. Available at: https://www.pdsa.org.uk/taking-care-of-your-pet/rabbits/creating-the-ideal-home-for-your-rabbits

³⁷ RWAF. Why a hutch is not enough. Available at: https://rabbitwelfare.co.uk/rabbit-housing/why-hutch-not-enough/

³⁸ Scottish Government, 2018. Pet Rabbit Welfare Guidance. Available at: https://www.gov.scot/Resource/0053/00533983.pdf

³⁹ Brodbelt, D. C et al., 2008. The risk of death: the Confidential Enquiry into Perioperative Small Animal Fatalities. *Veterinary Anaesthesia and Analgesia*, Volume 35, Issue 5, 365 – 373 https://doi.org/10.1111/j.1467-2995.2008.00397.x

⁴⁰ Saunders, R., 2018. More attention should be given to rabbits. Veterinary Record 182, 639. Available at: https://veterinaryrecord.bmj.com/content/182/22/639.info

⁴¹ Alligood, C. and Leighty, K. 2015. Putting the "E" in SPIDER: Evolving Trends in the Evaluation of Environmental Enrichment Efficacy in Zoological Settings. Animal Behavior and Cognition. 2. 200-217. 10.12966/abc.08.01.2015.

 $^{^{42}}$ Mendl, M. et al., 2009. Cognitive bias as an indicator of animal emotion and welfare: Emerging evidence and underlying mechanisms Applied Animal Behaviour Science , Volume 118 , Issue 3 , 161 - 181. https://doi.org/10.1016/j.applanim.2009.02.023

groups when they are admitted for procedures. As part of this, rabbits should be housed away from predatory species and good biosecurity should be maintained.

Recommendation 16: RCVS Practice Standards Scheme should include reference to veterinary surgeons enabling the housing of rabbits in compatible pairs or groups through their own clinical practice and decision-making eg. through risk-based neutering of rabbits to support the housing of rabbits in opposite sex pairs and, the keeping of rabbits in compatible pairs or groups when they are admitted for procedures.

Recommendation 17: Rabbit medicine and husbandry should be better integrated into the veterinary curriculum and teaching streams to better equip primary care practitioners to confidently manage rabbit health and welfare and educate prospective owners about the importance of housing pet rabbits in compatible pairs or groups.

Recommendation 18: Veterinary practices should educate prospective owners about the importance of companionship for pet rabbit health and welfare through the provision of prepurchase consultations.

Recommendation 19: Veterinary associations should continue to work collaboratively with rabbit health and welfare stakeholders on national campaigns to improve awareness of the importance of housing pet rabbits in compatible pairs or groups.