

GERMAN REGULATIONS AND GUIDELINES ON RABBIT HOUSING

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ABSTRACT

In May 2007 Guidelines of the German branch of World Rabbit Science Association (WRSA) for the housing of rabbits under the aspects of animal protection and welfare were published which were revised in 2009. The Guidelines are very similar to the Dutch regulation on rabbit housing. There are no European rules regarding rabbit housing, apart from those on laboratory animals (EC Directive 2010/63). In June 2011, a draft of a directive in addition to the Animal Welfare regulations in Farm Animals in Germany was published by the Federal Ministry of Food, Agriculture and Consumer Protection. The aim of this directive is to describe minimum requirements for the housing of rabbits giving the rabbit owners (for farm and pet rabbits) and veterinarians clear and unambiguous legal definitions concerning housing and management. However, the rules are only focused on rabbits which are kept for economical purposes. But, animal welfare is indivisible and the housing of rabbits for scientific purposes and of pet or home rabbits as well should also be included in the directive. Notwithstanding the general requirements for housing conditions for farm animals (§ 3 Animal Welfare Regulations in Farm Animals) much stronger requirements are intended concerning some factors of housing, e.g. the area of walls through which daylight may illuminate the stable, space allowance, number of waterers. The draft of the German Federal Ministry required a non-perforated lying area. But, this may result in hygienic problems. Non-perforated floors very quickly lead to an accumulation of faeces resulting in an increasing health risk because of the contamination with *E. coli* and *coccidia*. The Federal Ministry wishes to offer an additional spatially separated and darkened area. But, this makes the required twice daily animal control very difficult and is not necessary. There is also the wish to have tubes or similar hiding places. But, this increases the risk to identify sick animals too late which have retreated into these areas. Poorer animal health control may not be in the interest of animal welfare regulation. The continuous supply of hay or straw on a perforated floor as required by the draft of the Federal Ministry leads to a more or less polluted perforated floor and to an inadequate separation of animals from their faeces. The minimum requirements for breeding and growing rabbits following the Guidelines of the German group of WRSA are summarized in two tables. Enriched cages should be used. The space for a breeding doe in single housing ranges between 2,000 and 4,800 cm² depending on body weight and the use of an elevated seat. If an elevated platform is used the floor space of the cage plus the space of the elevated seat plus the nest box space are added to available surface. The rabbits shall have permanent access to water of good quality. There are some guidelines regarding the animal:feeding place-ratio, the light programme, the concentrations of ammonia and carbon dioxide in maximum and the frequency of daily controls of animal health and the technical function of feed and water supply and of microclimate.

Key words: Breeding rabbits, Growing rabbits, Animal Protection, Regulation, Guidelines.

INTRODUCTION

Breeding and growing rabbits are kept to a large extent in intensive husbandry systems, mainly in cages with wire nets or slatted floor. The housing of rabbits is related to behavioural, hygienic, economic and welfare aspects. With regard to the specific European Convention for the protection of animals kept for farming purposes, a Standing Committee composed of representatives of the parties of the Convention has prepared a draft (in the 17th revision from 2009) recommendation concerning the welfare of farmed domestic rabbits (*Oryctolagus cuniculus*). Except for the Netherlands, Austria and Switzerland, there are currently no statutory requirements for rabbit farming. In those countries,

directives on the welfare in rabbit housing exist since 2006, 2010 respectively. There are no European rules regarding rabbit housing, apart from those on laboratory animals (EC Directive 2010/63) which are introduced with the main topics in the next chapter.

Directive 2010/63/EU of the European Parliament and of the Council of 22 September 2010 on the protection of animals used for scientific purposes

The Directive 2010/63/EU of the European Parliament and of the Council of 22 September 2010 on the protection of animals used for scientific purposes establishes measures for the protection of animals used for scientific or educational purposes. To that end, it lays down rules on the following:

- (a) the replacement and reduction of the use of animals in procedures and the refinement of the breeding, accommodation, care and use of animals in procedures;
- (b) the origin, breeding, marking, care and accommodation and killing of animals;
- (c) the operations of breeders, suppliers and users;
- (d) the evaluation and authorisation of projects involving the use of animals in procedures.

All facilities shall be constructed so as to provide an environment which takes into account the physiological and ethological needs of the species kept in them. Facilities shall also be designed and managed to prevent access by unauthorised persons and the ingress or escape of animals. Insulation, heating and ventilation of the holding room shall ensure that the air circulation, dust levels and gas concentrations are kept within limits that are not harmful to the animals housed. Temperature and relative humidity in the holding rooms shall be adapted to the species and age groups housed. Where natural light does not provide an appropriate light/dark cycle, controlled lighting shall be provided to satisfy the biological requirements of the animals and to provide a satisfactory working environment. Illumination shall satisfy the needs for the performance of husbandry procedures and inspection of the animals. Regular photoperiods and intensity of light adapted to the species shall be provided. Animals shall be checked at least daily by a competent person. These checks shall ensure that all sick or injured animals are identified and appropriate action is taken.

All animals shall be provided with space of sufficient complexity to allow expression of a wide range of normal behaviour. They shall be given a degree of control and choice over their environment to reduce stress-induced behaviour. Establishments shall have appropriate enrichment techniques in place, to extend the range of activities available to the animals and increase their coping activities including physical exercise, foraging, manipulative and cognitive activities, as appropriate to the species. Environmental enrichment in animal enclosures shall be adapted to the species and individual needs of the animals concerned. The design of animal enclosure floors shall be adapted to the species and age of the animals and be designed to facilitate the removal of excreta.

Following this directive, the keeping of the rabbits shall at least follow the standards laid down in Directive 98/58/EC. A raised area shall be provided within the enclosure. This raised area must allow the animal to lie and sit and easily move underneath, and shall not cover more than 40% of the floor space. When for scientific or veterinary reasons a raised area cannot be used, the enclosure shall be 33% larger for a single rabbit and 60% larger for two rabbits. Where a raised area is provided for rabbits of less than 10 weeks of age, the size of the raised area shall be at least of 55 cm by 25 cm and the height above the floor shall be such that the animals can make use of it. The directive also defines the requirements of rabbits with different age concerning minimum floor area or enclosure size.

In public, enforced by animal welfare groups, the welfare and housing of rabbits are increasingly being discussed from a more emotional point of view. The aim of this paper is to demonstrate the actual situation in Germany concerning guidelines and regulations on rabbit housing.

Recommendations on rabbit housing in Germany

In some European Countries local guidelines on rabbit housing systems exist, because there are no European rules regarding rabbit housing, apart from those on laboratory animals (EC Directive 2010/63). The basics for housing of rabbits in Germany under the aspect of animal welfare is the German law for Animal Protection, especially the clauses 1, 2 and 2a (latest version: 2006). The animals shall have the possibility to move as is appropriate for the species. The animals must not have pain or avoidable suffering or injuries caused by housing. The owner or the keeper of an animal shall have necessary knowledge on nutrition, care and housing conditions. There are no special definitions concerning the housing of rabbits.

In 1991, the German branch of the WRSA has given some indications about the minimum space related to rabbits in intensive housing systems. In 2007, the German branch of WRSA replaced the Guidelines for rabbit housing dating from 1991. The current Guidelines consider the latest scientific results on the housing of rabbits regarding their welfare, as summarized by in the book “Recent advances in rabbit science” edited by Luc Maertens and Pierre Coudert (2006). Additionally, a scientific report exists on the multi-facetted impact of the current housing and husbandry systems on the health and welfare of farmed domestic rabbits given by the European Food Safety Authority (EFSA) (Anonymus, 2005). It includes: the biology of rabbits, the current housing and management systems on commercial farms, nutritional aspects and many other topics. In 2009, the Guidelines on minimum requirements for rabbit housing in Germany were revised and completed.

Guidelines on minimum requirements for housing of breeding and growing rabbits in Germany

The use of enriched cages is recommended. The 2nd floor can be used by the doe as withdrawal and the room under the 2nd floor can be used by the kits as a hiding-place. The use of a perforated plastic pad (foot-rests) wedged on the wire is to be recommended when metal wire is used in the cage. It is not necessary for growing rabbits (Lang, 2009). Rabbits can choose between different materials for lying depending on room temperature and air velocity. The plastic pad must not obstruct the falling through of faecal drops and must be included in the cleaning and disinfection procedures.

The minimum requirements for breeding rabbits are summarized in table 1. Enriched cages should be used allowing the rabbits to have access to material for engagement and – if possible – to an elevated platform. The elevated platform (the “third dimension”) for breeding rabbits seems to be more important than an enlarged cage size. It allows the does to jump away from the kits. If there is no elevated seat the minimum space of the cage or the pen has to be enlarged following the requirements given in table 1. Lying in a stretched body position should be possible for all animals. Enrichment belongs to the animal-friendly housing of rabbits. The material for engagement (e.g. gnawing sticks made of wood) should hang within the cage. It was demonstrated in different investigations that welfare-friendly pens with a plastic platform, a hiding box and gnawing material had no negative effect on health and performance.

Here are two examples for a doe with kits and a live weight of up to 5.5 kg to calculate the necessary space: without elevated seat: $3,600 + 800 = 4,400 \text{ cm}^2$, with elevated seat: $3,000 + 1,000 + 800 = 4,800 \text{ cm}^2$ (floor space of the cage + the space of the elevated seat + the space of the nest box).

Table 1: Minimum requirements for breeding rabbits (German branch of WRSA 2007, 2009).

	Space per rabbit (cm ²)		Minimum height (cm)	
Up to 4.0 kg	2,000*	2,400	40	60*
Up to 5.5 kg	3,000*	3,600	40	60*
> 5.5 kg	4,000*	4,800	40	60*
Elevated seat		1,000		25
Nest box		800		30

*if elevated seat is used

The rabbits shall have permanent access to water of good quality. There has to be in minimum one nipple waterer per cage or box in single housing. More than one nipple waterer should be used in groups of more than ten rabbits. The width of the feeding place has to be 6 to 8 cm, depending on the size of the rabbits, up to a live weight of 4 kg. For bucks the width of the feeding place should be 10 cm. If the rabbits are fed *ad libitum* the width of the feeding place can be reduced to half. The nest box should be installed 3 days before kindling. A light schedule in windowless rabbitries has to be used with 8 to 16 hours light and 8 to 16 hours darkness in 24 hours with a light intensity of 20 lux. 20 ppm ammonia and 3,000 ppm carbon dioxide (0.30 Vol.-%) shall be the maximum limits tolerated within the rabbitry. The animals' health and the correct functioning of feed and water supplies as well as the microclimate should be verified daily. The requirements for growing rabbits are given in the table 2.

Table 2: Minimum requirements for growing rabbits (German branch of WRSA 2007, 2009)*.

	Space per rabbit (cm ²)	Height (cm)
Until 1.2 kg	400 in minimum	35
More than 1.2 kg		
in groups up to 5 rabbits – per rabbit	700 in minimum	35
in groups of more than 5 rabbits – per rabbit	600 in minimum	35
Growing rabbits	40 kg / 10,000 cm ² in maximum	
Further requirements		
Metal wire – diameter	3 mm in minimum	
Width of slats, minimum	10 mm	
Width of slats, maximum	16 mm	

*identical also to the Dutch Directive

Draft of a Directive on the protection of rabbits kept as farm animals in Germany

In June 2011, a draft of a directive in addition to the Animal Welfare regulations in Farm Animals in Germany was published by the Federal Ministry of Food, Agriculture and Consumer Protection. The aim of this directive is to describe minimum requirements for the housing of rabbits giving the rabbit owners (for farm and pet rabbits) and veterinarians clear and unambiguous legal definitions concerning housing and management. However, the rules are only focused on rabbits which are kept for economical purposes. But, animal welfare is indivisible and the housing of rabbits for scientific purposes and of pet or home rabbits as well should also be included in the directive. Notwithstanding the general requirements for housing conditions for farm animals (§ 3 Animal Welfare Regulations in Farm Animals) much stronger requirements are intended concerning the area of walls through which daylight may illuminate the stable: natural light should invade into the interior of the rabbitry for at least 5% of floor area whereas for other farm animals this value must be only 3%. The single housing of breeding rabbits is not mentioned explicitly. But, it is known that sexually mature rabbits must be kept separately to avoid injuries caused by aggressive behaviour of high ranking group-mates. Group housing of does with kits is not ready to be used widely in practice.

In the framework paper of the Federal Ministry an area for growing rabbits is required that is about twice as high as in the Dutch regulation and the Guidelines of German branch of WRSA at least for the "first four animals". The note on the draft (in the 17th revision from 2009) recommendation concerning the welfare of farmed domestic rabbits of the Council of Europe is not helpful because it is only a draft not supported by all European states. The requirements go far beyond those specified in the EU Directive 2010/63/EU.

It is not correct that only a minimum area of 1,000 cm²/animal and a width of 0.8 m allows the animals to lie in stretched body position. Measurements in animals of large breeds (e.g. does and bucks of White New Zealand) with body weights from 3.90 to 5.00 kg show that the body length of stretched lying rabbits is 65-78 cm.

The draft of the Federal Ministry required a non-perforated lying area. This is to be rejected because of hygienic reasons. Non-perforated floors very quickly lead to an accumulation of faeces resulting in an increasing health risk because of the contamination with *E. coli* and *coccidia*. It must not be forgotten that not only in Germany but probably in other European countries too pet rabbits are kept to a third on perforated floor (Swenson, 1997).

The demand for an elevated seat will be supported by the German branch of WRSA. Especially does with kits but also growing rabbits use this additional space as a withdrawal or a hiding place.

The Federal Ministry wishes to offer an additional spatially separated and darkened area. But, this makes the required twice daily animal control very difficult and is not necessary. It is not realistic to demand that these areas must be controlled twice daily. Even the use of an elevated seat makes it difficult to control animal health daily (Lang, 2009). Also, the Ministry wishes to have tubes or similar hiding places. But, this increases the risk to identify sick animals too late which have retreated into these areas. Poorer animal health control may not be in the interest of animal welfare regulation.

The continuous supply of hay or straw on a perforated floor as required by the draft of the Federal Ministry leads to a more or less polluted perforated floor and to an inadequate separation of animals from their faeces. As a result, the risk of diseases caused by *E. coli* or *coccidia* increases.

In the draft, it is intended that each 5 rabbits should have permanent access to two waterers. Even this requirement is much stronger than the general requirements of the Animal Welfare Regulations in

Farm Animals (e.g. in maximum 12 pigs per waterer) and is not scientifically justified. Useful could be the requirement that each animal should permanently have access to two water suppliers.

CONCLUSIONS

The Guidelines for minimum standards on rabbit housing in Germany entered in force in May 2007 and were complemented in May 2009. They are an orientation for the rabbit owners, for the advisors and for the state veterinarians who have to control rabbitries. The draft of a Federal Directive in addition to the Animal Welfare regulations in Farm Animals in Germany does not represent the actual knowledge of housing and welfare of growing and breeding rabbits and is under revision at the moment.

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