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| 7 8 | ASPA draft code of practice for all licensed establishments for the care and accommodation of animals |
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ASPA draft code of practice for the care and accommodation of animals: February 2013

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1 2

Introduction

3 Who is this code of practice for?

- 4 This code of practice is for all users, breeders and suppliers of animals used in scientific
- 5 procedures covered by the Animals (Scientific Procedures) Act 1986, as amended by the
- 6 Animals (Scientific Procedures) Act 1986 Amendment Regulations (SI 2012/3039) made on
- 7 18 December 2012.

8 What is the purpose of this code of practice?

- 9 This code of practice sets out the standards which must be applied by all users, breeders and
- suppliers from 1 January 2013 until 31 December 2016.
- Separate guidance will be provided on the standards which must be applied by users,
- breeders and suppliers from 1 January 2017.

13 The content and format of this code

- The code is split into two sections:
- Section A describes general requirements.
- Section B describes the requirements for specific species of animals.
- All of the free text in this code has been taken from Annex 3 to European Directive
- 18 2010/63/EU on the protection of animals used for scientific purposes.
- 19 The tables in Section B to the code have been taken from the Code of Practice for the
- Housing and Care of Animals Used in Scientific Procedures, published on 7 February 1989,
- 21 the Code of Practice for the Housing and Care of Animals in Designated Breeding and
- Supplying Establishments, published on 24 January 1995, and the Code of Practice for the
- Housing and Care of Animals in Designated Breeding and Supplying Establishments,
- 24 Supplement: Ferrets and Gerbils, published on 7 November 2001.
- 25 Please note that where the code uses the words "shall" or "should" these requirements are
- 26 mandatory.

27

What does ASPA require?

- Under the Animals (Scientific Procedures) Act 1986 (ASPA), licensed establishments must
- ensure that:
- 30 (a) the environment, housing, freedom of movement, food, water and care provided for
- ach protected animal is appropriate for the animal's health and wellbeing;
- 32 (b) the conditions under which any such animal is transported are appropriate for the
- animal's health and wellbeing;

- 1 (c) any restrictions on the extent to which each such animal can satisfy its physiological 2 and ethological needs are kept to the absolute minimum; 3 (d) the environmental conditions in which such animals are kept are checked daily; 4 (e) the wellbeing and state of health of such animals is monitored by a suitably qualified 5 person in order to prevent pain or avoidable suffering, distress or lasting harm; and 6 (f) arrangements are made to ensure that any defect discovered and any avoidable 7 pain, suffering, distress or lasting harm discovered is eliminated as quickly as possible. 8 Can I apply for an exemption from these requirements? 9 We may allow exemptions from the requirements of this code where compliance with them 10 would: 11 prevent a programme of work specified in a project licence being carried out; or 12 prevent the objectives of a programme of work specified in a project licence from 13 being achieved; or 14 where an exemption is necessary for scientific, animal welfare or animal health 15 reasons.
- Where can I get more detailed advice on the housing and care of
- 18 animals?
- The Bibliography to this code of practice provides extensive and detailed advice on the care

In any such case, you must have the exemption specifically authorised in the relevant licence.

- and accommodation of laboratory animals. Specific questions relating to the regulations,
- Guidance and this code of practice, and not covered by this code of practice, should be
- referred to the ASRU General Enquiries email address (aspd-brp@homeoffice.gsi.gov.uk) or
- 23 to the Home Office Inspector assigned to your establishment.

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Section A: General section

1. The physical facilities

4 1.1. Functions and general design

- 5 (a) All facilities shall be constructed so as to provide an environment which takes into account
- 6 the physiological and ethological needs of the species kept in them. Facilities shall also be
- 7 designed and managed to prevent access by unauthorised persons and the ingress or
- 8 escape of animals.
- 9 (b) Establishments shall have an active maintenance programme to prevent and remedy any
- defect in buildings or equipment.

11 1.2. Holding rooms

- 12 (a) Establishments shall have a regular and efficient cleaning schedule for the rooms and
- shall maintain satisfactory hygienic standards.
- 14 (b) Walls and floors shall be surfaced with a material resistant to the heavy wear and tear
- caused by the animals and the cleaning process. The material shall not be detrimental to the
- health of the animals and shall be such that the animals cannot hurt themselves. Additional
- protection shall be given to any equipment or fixtures so that they are not damaged by the
- animals nor do they cause injury to the animals themselves.
- 19 (c) Species that are incompatible, for example predator and prey, or animals requiring
- different environmental conditions, shall not be housed in the same room nor, in the case of
- 21 predator and prey, within sight, smell or sound of each other.

22 1.3. General and special purpose procedure rooms

- 23 (a) Establishments shall, where appropriate, have available laboratory facilities for the
- 24 carrying out of simple diagnostic tests, post-mortem examinations, and/or the collection of
- samples that are to be subjected to more extensive laboratory investigations elsewhere.
- General and special purpose procedure rooms shall be available for situations where it is
- 27 undesirable to carry out the procedures or observations in the holding rooms.
- 28 (b) Facilities shall be provided to enable newly acquired animals to be isolated until their
- health status can be determined and the potential health risk to established animals assessed
- 30 and minimised.
- 31 (c) There shall be accommodation for the separate housing of sick or injured animals.

1 2

1.4. Service rooms

- 3 (a) Store-rooms shall be designed, used and maintained to safeguard the quality of food and
- 4 bedding. These rooms shall be vermin and insect-proof, as far as possible. Other materials,
- 5 which may be contaminated or present a hazard to animals or staff, shall be stored
- 6 separately.
- 7 (b) The cleaning and washing areas shall be large enough to accommodate the installations
- 8 necessary to decontaminate and clean used equipment. The cleaning process shall be
- 9 arranged so as to separate the flow of clean and dirty equipment to prevent the contamination
- 10 of newly cleaned equipment.
- 11 (c) Establishments shall provide for the hygienic storage and safe disposal of carcasses and
- 12 animal waste.
- 13 (d) Where surgical procedures under aseptic conditions are required there shall be provision
- for one or more than one suitably equipped room, and facilities provided for postoperative
- 15 recovery.

16 2. The environment and control thereof

17 **2.1. Ventilation and temperature**

- 18 (a) 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
- 20 housed.
- 21 (b) Temperature and relative humidity in the holding rooms shall be adapted to the species
- and age groups housed. The temperature shall be measured and logged on a daily basis.
- 23 (c) Animals shall not be restricted to outdoor areas under climatic conditions which may
- 24 cause them distress.

25 **2.2. Lighting**

- 26 (a) 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
- 28 satisfactory working environment.
- 29 (b) Illumination shall satisfy the needs for the performance of husbandry procedures and
- inspection of the animals.
- 31 (c) Regular photoperiods and intensity of light adapted to the species shall be provided.
- 32 (d) When keeping albino animals, the lighting shall be adjusted to take into account their
- 33 sensitivity to light.

34 **2.3. Noise**

35 (a) Noise levels including ultrasound, shall not adversely affect animal welfare.

- 1 (b) Establishments shall have alarm systems that sound outside the sensitive hearing range
- 2 of the animals, where this does not conflict with their audibility to human beings.
- 3 (c) Holding rooms shall where appropriate be provided with noise insulation and absorption
- 4 materials.

5 2.4. Alarm systems

- 6 (a) Establishments relying on electrical or mechanical equipment for environmental control
- 7 and protection, shall have a stand-by system to maintain essential services and emergency
- 8 lighting systems as well as to ensure that alarm systems themselves do not fail to operate.
- 9 (b) Heating and ventilation systems shall be equipped with monitoring devices and alarms.
- 10 (c) Clear instructions on emergency procedures shall be prominently displayed.

11 3. Care of animals

12 **3.1. Health**

- 13 (a) Establishments shall have a strategy in place to ensure that a health status of the animals
- is maintained that safeguards animal welfare and meets scientific requirements. This strategy
- shall include regular health monitoring, a microbiological surveillance programme and plans
- 16 for dealing with health breakdowns and shall define health parameters and procedures for the
- 17 introduction of new animals.
- 18 (b) 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.

20 **3.2.** Animals taken from the wild

- 21 (a) Transport containers and means of transport adapted to the species concerned shall be
- 22 available at capture sites, in case animals need to be moved for examination or treatment.
- 23 (b) Special consideration shall be given and appropriate measures taken for the
- acclimatisation, quarantine, housing, husbandry, care of animals taken from the wild and, as
- appropriate, provisions for setting them free at the end of procedures.

26 **3.3. Housing and enrichment**

(a) Housing

27

- Animals, except those which are naturally solitary, shall be socially housed in stable groups of
- compatible individuals. In cases where single housing is allowed for scientific, animal welfare
- or animal health reasons, the duration shall be limited to the minimum period necessary and
- 31 visual, auditory, olfactory and/or tactile contact shall be maintained. The introduction or re-
- 32 introduction of animals to established groups shall be carefully monitored to avoid problems
- 33 of incompatibility and disrupted social relationships.

34 (b) Enrichment

- 35 All animals shall be provided with space of sufficient complexity to allow expression of a wide
- 36 range of normal behaviour. They shall be given a degree of control and choice over their
- 37 environment to reduce stress-induced behaviour. Establishments shall have appropriate
- 38 enrichment techniques in place, to extend the range of activities available to the animals and

- 1 increase their coping activities including physical exercise, foraging, manipulative and
- 2 cognitive activities, as appropriate to the species. Environmental enrichment in animal
- 3 enclosures shall be adapted to the species and individual needs of the animals concerned.
- 4 The enrichment strategies in establishments shall be regularly reviewed and updated.

5 (c) Animal enclosures

- 6 Animal enclosures shall not be made out of materials detrimental to the health of the animals.
- 7 Their design and construction shall be such that no injury to the animals is caused. Unless
- 8 they are disposable, they shall be made from materials that will withstand cleaning and
- 9 decontamination techniques. The design of animal enclosure floors shall be adapted to the
- 10 species and age of the animals and be designed to facilitate the removal of excreta.

11 **3.4. Feeding**

- 12 (a) The form, content and presentation of the diet shall meet the nutritional and behavioural
- 13 needs of the animal.
- 14 (b) The animals' diet shall be palatable and non-contaminated. In the selection of raw
- materials, production, preparation and presentation of feed, establishments shall take
- measures to minimise chemical, physical and microbiological contamination.
- 17 (c) Packing, transport and storage shall be such as to avoid contamination, deterioration or
- destruction. All feed hoppers, troughs or other utensils used for feeding shall be regularly
- 19 cleaned and, if necessary, sterilised.
- 20 (d) Each animal shall be able to access the food, with sufficient feeding space provided to
- 21 limit competition.

22 **3.5. Watering**

- 23 (a) Uncontaminated drinking water shall always be available to all animals.
- 24 (b) When automatic watering systems are used, they shall be regularly checked, serviced and
- 25 flushed to avoid accidents. If solid-bottomed cages are used, care shall be taken to minimise
- the risk of flooding.
- (c) Provision shall be made to adapt the water supply for aguaria and tanks to the needs and
- tolerance limits of the individual fish, amphibian and reptile species.

29 **3.6. Resting and sleeping areas**

- 30 (a) Bedding materials or sleeping structures adapted to the species shall always be provided,
- including nesting materials or structures for breeding animals.
- 32 (b) Within the animal enclosure, as appropriate to the species, a solid, comfortable resting
- area for all animals shall be provided. All sleeping areas shall be kept clean and dry.

34 **3.7. Handling**

- 35 Establishments shall set up habituation and training programmes suitable for the animals, the
- 36 procedures and length of the project.

Section B: Species-specific section

3 1. MICE, RATS, GERBILS, HAMSTERS AND GUINEA PIGS

- 4 In this and subsequent tables for mice, rats, gerbils, hamsters and guinea pigs, 'enclosure
- 5 height' means the vertical distance between the enclosure floor and the top of the enclosure
- 6 and this height applies over more than 50% of the minimum enclosure floor area prior to the
- 7 addition of enrichment devices.
- 8 When designing procedures, consideration shall be given to the potential growth of the
- 9 animals to ensure adequate space is provided (as detailed in Tables 1.1 to 1.10) for the
- duration of the study.

11 Table 1.1: MICE: Dimensions for breeders and post-weaned stock

| Minimum floor area requirements for breeders (including litters) | | | | |
|--|-----------------------------|--------------------------|--|--|
| | Minimum floor area (cm²) | Minimum cage height (cm) | | |
| Monogamous Pair (Outbred/Inbred) | 300 | 12 | | |
| Trio (Inbred) | 300 | 12 | | |

For each additional female plus litter an additional 180 cm² should be added

Minimum floor space allocation for post-weaned stock

| Weight (g) | When housed in groups (cm²) | When housed singly (cm ²) |
|------------|-----------------------------|---------------------------------------|
| <20 | 30 | 200 |
| 21 to 25 | 45 | 200 |
| 26 to 30 | 60 | 200 |
| >30 | 100 | 200 |

Minimum floor space for one or more mice – 200 cm²

Minimum cage height - 12 cm

1 Table 1.2: MICE: Dimensions for users

2

| Weight of animal (g) | Minimum floor area (cm²) per animal when housed in groups | Minimum floor area (cm²) per animal when housed singly | Minimum height (cm) |
|----------------------|---|---|------------------------|
| <30 | 60 | 200 | 12 |
| >30 | 100 | 200 | 12 |

1 2 Table 1.3: RATS: Dimensions for breeders and post-weaned stock

| Minimum floor area requirements for breeders (including litters) | | | | |
|--|-----------------------------|--------------------------|--|--|
| | Minimum floor area (cm²) | Minimum cage height (cm) | | |
| Mother and litter | 900 | 18 | | |
| Monogamous pair and litter | 900 | 18 | | |

Minimum floor space allocation for post-weaned stock

| Weight (g) | When housed in groups (cm²) | When housed singly (cm²) |
|------------|-----------------------------|--------------------------|
| <100 | 75 | 500 |
| 101 to 150 | 100 | 500 |
| 151 to 250 | 150 | 500 |
| 251 to 350 | 250 | 700 |
| 351 to 450 | 300 | 700 |
| 451 to 550 | 350 | 700 |
| >550 | 400 | 800 |

Minimum floor space for one or more rats -500 cm^2

3

4

Minimum cage height - <250 g - 18 cm; >250 g - 20 cm

1 2 Table 1.4: RATS: Dimensions for users

| Weight of animal (g) | Minimum floor area (cm²) per animal when housed in groups | Minimum floor area (cm²) per animal when housed singly | Minimum height (cm) |
|----------------------|---|---|------------------------|
| <50 | 100 | 500 | 18 |
| 50 to 150 | 150 | 500 | 18 |
| 150 to 250 | 200 | 500 | 18 |
| 250 to 350 | 250 | 700 | 20 |
| 350 to 450 | 300 | 700 | 20 |
| 450 to 550 | 350 | 700 | 20 |
| >550 | 400 | 800 | 20 |

1 2 Table 1.5: GERBILS: Dimensions for breeders and post-weaned stock

| | Minimum floor area (cm²) | Minimum cage height (cm) |
|-------------------------|-----------------------------|--------------------------|
| Monogamous pair or trio | 900 | 20 |

For each additional female plus litter an additional 300 cm² should be provided.

Minimum floor space allocation for post-weaned stock

| Weight (g) | When housed in groups (cm²) | When housed singly (cm²) | Minimum cage height (cm) |
|------------|-----------------------------|--------------------------|-----------------------------|
| < 30 | 60 | 500 | 20 |
| 31 to 50 | 100 | 500 | 20 |
| > 50 | 150 | 500 | 20 |

4 Table 1.6: GERBILS: Dimensions for users

3

5

| Weight of animal (g) | Minimum floor area (cm²) per animal when housed in groups | Minimum floor area (cm²) per animal when housed singly | Minimum height (cm) |
|----------------------|---|---|------------------------|
| <50 | 100 | 500 | 18 |
| 50 to 150 | 150 | 500 | 18 |
| >150 | 200 | 500 | 18 |

1 2 Table 1.7: HAMSTERS: Dimensions for breeders and post-weaned stock

| | Minimum floor area (cm²) | Minimum cage height (cm) |
|----------------------------|-----------------------------|--------------------------|
| Mother and litter | 650 | 15 |
| Monogamous pair and litter | 650 | 15 |

Minimum floor space allocation for post-weaned stock

| Weight (g) | When housed in groups (cm²) | When housed singly (cm ²) |
|------------|-----------------------------|---------------------------------------|
| <60 | 80 | 300 |
| 61 to 90 | 100 | 300 |
| 91 to 120 | 120 | 300 |
| >120 | 165 | 300 |

Minimum floor space for one or more hamsters – 300 cm²

Minimum cage height – 15 cm

4 Table 1.8: HAMSTERS: Dimensions for users

| Weight of animal (g) | Minimum floor area (cm²) per animal when housed in groups | Minimum floor area (cm²) per animal when housed singly | Minimum height (cm) |
|----------------------|---|---|------------------------|
| <60 | 80 | 300 | 15 |
| 60 to 90 | 100 | 300 | 15 |
| 90 to 120 | 120 | 300 | 15 |
| >120 | 165 | 300 | 15 |

Table 1.9: GUINEA PIGS: Dimensions for breeders and post-weaned stock

1 2

3

4

| Minimum requirements for breeding and post-weaned stock | | | | |
|---|-----------------------------|---------------------|--|--|
| Breeding | Minimum floor area (cm²) | Minimum height (cm) | | |
| Pair | 1500 | 23 | | |
| Per individual female in a harem | 1000 | 23 | | |
| Group housed stock (g) | Minimum floor area (cm²) | Minimum height (cm) | | |
| <150 | 200 | 20 | | |
| 150 to 250 | 300 | 20 | | |
| 250 to 350 | 400 | 20 | | |
| 350 to 450 | 500 | 23 | | |
| 450 to 550 | 600 | 23 | | |
| >550 | 700 | 23 | | |

The minimum floor area for one or more guinea pigs is 700 cm²

1 2 Table 1.10: GUINEA PIGS: Dimensions for users

| Weight of animal (g) | Minimum floor area (cm²) per animal when housed in groups | Minimum floor area (cm²) per animal when housed singly | Minimum height (cm) |
|----------------------|---|---|---------------------|
| <150 | 200 | 700 | 20 |
| 150 to 250 | 300 | 700 | 20 |
| 250 to 350 | 400 | 900 | 20 |
| 350 to 450 | 500 | 900 | 23 |
| 450 to 550 | 600 | 900 | 23 |
| 550 to 650 | 700 | 1000 | 23 |
| >650 | 750 | 1250 | 23 |

2. RABBITS

During agricultural research, when the aim of the project requires that the animals are kept under similar conditions to those under which commercial farm animals are kept, the keeping of the animals shall at least follow the standards laid down in Directive 98/58/EC¹.

¹ Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23).

1 2 Table 2.1: RABBITS: Dimensions for breeders and post-weaned stock

| Breeders (doe + litter) Weight of doe (kg) | Minimum floor area (cm²) | Minimum cage height (cm) |
|---|-----------------------------|--------------------------|
| <3.0 | 4000 | 45 |
| >3.0 | 6400 | 45 |
| Group housed stock (kg) | Minimum floor area (cm²) | Minimum cage height (cm) |
| <2.0 | 1500 | 40 |
| 2.0 to 2.5 | 2000 | 45 |
| 2.5 to 3.0 | 2500 | 45 |
| 3.0 to 3.5 | 3000 | 45 |
| 3.5 to 4.0 | 4000 | 45 |
| 4.0 to 6.0 | 5400 | 45 |
| >6.0 | 6000 | 45 |
| Single housed stock (kg) | Minimum floor area (cm²) | Minimum cage height (cm) |
| <2.0 | 2000 | 40 |
| 2.0 to 3.0 | 3000 | 45 |
| 3.0 to 4.0 | 4000 | 45 |
| 4.0 to 6.0 | 5400 | 45 |
| >6.0 | 6000 | 45 |

3

1 2 Table 2.2: RABBITS: Dimensions for users

3

| Weight of animal (kg) | Minimum floor area (cm²) per animal when housed in groups | Minimum floor area (cm²) per animal when housed singly | Minimum height (cm) |
|-----------------------|---|---|------------------------|
| <2.0 | 1300 | 2000 | 40 |
| 2.0 to 4.0 | 2600 | 4000 | 45 |
| 4.0 to 6.0 | 3300 | 5400 | 45 |
| >6.0 | 4000 | 6000 | 45 |

1 2 **3. CATS**

- 3 Cats shall not be single-housed for more than 24 hours at a time. Cats that are repeatedly
- 4 aggressive towards other cats shall be housed singly only if a compatible companion cannot
- 5 be found. Social stress in all pair- or group- housed individuals shall be monitored at least
- 6 weekly. Females with kittens under four weeks of age or in the last two weeks of pregnancy
- 7 may be housed singly.

8 Table 3.1: CATS: Dimensions for breeders and post-weaned stock

Minimum requirements for queen and litter up to 3 weeks of age:

1.0 m² per queen

80 cm height

Minimum floor space requirements for queen and litter from 3 weeks of age to weaning:

0.5 m² per queen

0.1 m² per kitten

Overall minimum pen size must be 2 m² floor space and 200cm height

Post-weaned stock and adult male and female brood stock minimum requirements

| Body weight (kg) | Minimum floor space (m ²) |
|------------------|---------------------------------------|
| <1.0 | 0.2 |
| 1.0 to 2.0 | 0.35 |
| 2.0 to 3.0 | 0.5 |
| >3.0 | 0.75 |

No animals must be kept in a pen of less than 1.0 m^2 floor space and 200 cm height

1 2 Table 3.2: CATS: Dimensions for users

3

| Weight of animal (kg) | Minimum floor area (cm²) per animal when housed in groups | Minimum floor area (cm²) per animal when housed singly | Minimum height (cm) |
|-----------------------|---|---|---------------------|
| <3.0 | 3300 | 5000 | 50 |
| >3.0 | 5000 | 7500 | 80 |

1 2

4. DOGS

- 3 Dogs shall where possible be provided with outside runs. Dogs shall not be single-housed for
- 4 more than 4 hours at a time.
- 5 The internal enclosure shall represent at least 50% of the minimum space to be made
- 6 available to the dogs, as detailed in Tables 4.1 and 4.2.
- 7 The space allowances detailed below are based on the requirements of beagles, but giant
- 8 breeds such as St Bernards or Irish wolfhounds shall be provided with allowances
- 9 significantly in excess of those detailed in Tables 4.1 and 4.2. For breeds other than the
- 10 laboratory beagle, space allowances shall be determined in consultation with veterinary staff.
- No animal must be kept in a pen of less than 4.5 m² floor space.

12 13

Table 4.1: DOGS: Dimensions for breeders and post-weaned stock

| Brood stock and stud dogs – minimum requirements: | | | | |
|---|-----------------------------|--|--|--|
| 2.25 m ² per animal | | | | |
| 200 cm height | | | | |
| Minimum requirements for bitch and | d litter to 6 weeks of age: | | | |
| 4.5 m ² floor space | | | | |
| 200 cm height | | | | |
| Post-weaned stock minimum space requirements | | | | |
| Body weight (kg) | Minimum floor space (m²) | | | |
| < 5 | 0.5 | | | |
| 5 to 10 1.0 | | | | |
| 10 to 15 1.5 | | | | |
| 15 to 20 2.0 | | | | |
| >20 | >20 2.25 | | | |

2 Table 4.2: DOGS: Dimensions for users

| Weight of animal (kg) | Minimum floor area (m²) per animal when housed in groups | Minimum floor area (m²) per animal when housed singly | Minimum height (cm) |
|-----------------------|--|--|------------------------|
| <5 | 1.0 | 4.5 | 150 |
| 5 to 10 | 1.9 | 4.5 | 150 |
| 10 to 25 | 2.25 | 4.5 | 200 |
| 25 to 35 | 3.25 | 6.5 | 200 |
| >35 | 4.0 | 8.0 | 200 |

1 **5. FERRETS**

2 Table 5.1: FERRETS: Dimensions for breeders and post-weaned stock

| Minimum requirements for breeding and post-weaned stock | | | |
|---|--|---------------------|--|
| | Minimum floor area (cm²) | Minimum height (cm) | |
| Jill + Litter | 5400 | 50 | |
| Group housed stock (g) | Minimum floor area (cm²) per animal | Minimum height (cm) | |
| <600 | 1000 | 50 | |
| 600 to 800 | 1500 | 50 | |
| >800 | 3000 | 50 | |
| Single housed stock (g) | | | |
| <600 | 2000 | 50 | |
| 600 to 800 | 2250 | 50 | |
| >800 | 4500 | 50 | |
| Adult male | 5400 | 50 | |

(Note – the minimum floor area for animals housed in groups must not be less than that specified for an animal housed singly.) $\frac{1}{2} \int_{\mathbb{R}^{n}} \left(\frac{1}{2} \int_{\mathbb{R}^{n}}$

4 Table 5.2: FERRETS: Dimensions for users

| Weight of animal (g) | Minimum floor area (cm²) per animal housed in groups | Minimum floor area (cm²) per animal when housed singly | Minimum height (cm) |
|----------------------|---|---|------------------------|
| <800 | 1500 | 2250 | 50 |
| >800 | 3000 | 4500 | 50 |

1 6. NON-HUMAN PRIMATES

2 Weaning

- 3 For squirrel monkeys, separation from the mother shall not take place before 6 months of
- 4 age. For all other species, separation from the mother shall not take place before 8 months of
- 5 age.

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- 6 The environment shall enable non-human primates to carry out a complex daily programme
- 7 of activity. The enclosure shall allow non-human primates to adopt as wide a behavioural
- 8 repertoire as possible, provide it with a sense of security, and a suitably complex environment
- 9 to allow the animal to run, walk, climb and jump.

10 Table 6.1: NON-HUMAN PRIMATES: New World Primates – dimensions

11 for breeders and post-weaned stock

| MARMOSETS (Callithrix) | | | |
|--|------------------------------|--|--|
| Minimum cage height (cm) | | | |
| 150 cm (Top of cage must be a minimu | m 180 cm from floor) | | |
| Minimum floor area (m²) | | | |
| Breeding pair plus one generation of offspring | 0.55 | | |
| Family group (8 animals maximum excluding carried infants) | 1.0 | | |
| Post-weaned stock or adults | 0.135 m ² /animal | | |
| Minimum floor area – 0.55 m ² | | | |

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| TAMARINS (Saguinus) | | | | |
|--|-----|--|--|--|
| Minimum cage height (cm) | | | | |
| 150 cm (Top of cage must be a minimum 180 cm from floor) | | | | |
| Minimum floor area (m²) | | | | |
| Family group | 1.5 | | | |
| Post-weaned stock or adults 0.15 m ² /animal | | | | |
| Minimum floor area 1.5 m ² | | | | |

| OWL MONKEYS (Aotus) | |
|---------------------------------------|------------------------------|
| Minimum cage height (cm) | |
| 150 cm (Top of cage must be a minimu | ım 180 cm from floor) |
| Minimum floor area (m²) | |
| Family group (maximum 5 animals) | 1.5 |
| Post-weaned stock or adults (g) | |
| <700 | 0.135 m ² /animal |
| >700 | 0.2 m ² /animal |
| Minimum floor area 1.5 m ² | |

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| SQUIRREL MONKEYS (Saimiri) | | | | |
|----------------------------|-------------------------|------------------------------|-------------------------|--|
| Group | No. of adult animals | Maximum number in cage | Cage floor area (m²) | |
| Breeding | 5 (2m+3f) | 8 | 2.0 | |
| | 10 (4m+6f) | 18 | 4.0 | |
| Post-weaned stoc | k or adults (g) | | | |
| <7 | 00 | 0.135 m ² /animal | | |
| >700 | | 0.2 m ² / | /animal | |

Table 6.2: NON-HUMAN PRIMATES: Old World Primates – dimensions for breeders and post-weaned stock

MACAQUES (Macaca)

The minimum pen sizes for any breeding group of macaques: 6 m² floor space

indoor height - 1.8 m

outdoor height - 2.4 m

a. Macaca fascicularis (Cynomolgus, long-tailed or crab-eating macaque)

Approximate weight range of adults 4 to 10 kg

In a breeding troop each adult will be provided with a minimum floor space of 1.0 m². This area will include space for young animals up to 6 months of age.

| For growing animals: | Minimum floor area per animal | |
|----------------------|-------------------------------|--|
| 6 month-1 year | 0.35 m ² | |
| 1 year-2 years | 0.45 m ² | |

The minimum pen size for a single replacement breeding or stock animal will be 2.0 m².

b. Macaca mulatta (Rhesus) and Macaca arctoides (Stump-tailed macaque)

Approximate weight range of adults – 6 to 14 kg.

In a breeding troop each adult will be provided with a minimum floor space of 1.7 m². This area will include space for young animals up to 6 months of age.

| For growing animals: | | |
|----------------------|---------------------|--|
| 6 month-1 year | 0.45 m ² | |
| 1 year-2 years | 0.6 m ² | |

The minimum pen size for a single replacement breeding or stock animal will be 2.0 m².

1 Table 6.3: NON-HUMAN PRIMATES: Dimensions for users

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| Weight of animal (g) | Minimum floor area (m²) per animal when housed in groups | Minimum floor area (m²) per animal when housed singly | Minimum height (cm) |
|----------------------|---|--|------------------------|
| <700 | 0.135 | 0.25 | 80 |
| 700 to 1400 | 0.25 | 0.5 | 100 |
| | 0.2 (for arboreal monkeys in groups when they are held in taller cages) | n/a | 150 |
| 1400 to 4000 | 0.6 | 0.6 | 100 |
| 4000 to 6000 | 0.8 | 0.8 | 110 |
| 6000 to 9000 | 1.4 | 1.4 | 150 |

1 2 7. FARM ANIMALS

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3 During agricultural research, when the aim of the project requires that the animals are kept

under similar conditions to those under which commercial farm animals are kept, the keeping

of the animals shall comply at least with the standards laid down in Directives 98/58/EC,

 $6 91/629/EEC^2$ and $91/630/EEC^3$.

7 Table 7.1: PIGS: Dimensions for users

| Weights (kg) | Minimum floor area (m²) per animal when housed in groups | Minimum floor area (m²) per animal when housed singly | Minimum length of feed rack or trough per head (m) |
|--------------|--|--|---|
| <30 | 1.0 | 2.0 | 0.20 |
| 30 to 50 | 1.3 | 2.0 | 0.25 |
| 50 to 100 | 2.0 | 3.0 | 0.30 |
| 100 to 150 | 2.7 | 4.0 | 0.35 |
| >150 | 3.75 | 5.0 | 0.40 |
| Adult boar | | 7.5 | 0.50 |

9 Table 7.2: SHEEP AND GOATS: Dimensions for users

| Weights (kg) | Minimum floor area (m²) per animal when housed in groups | Minimum floor area (m²) per animal when housed singly | Minimum length of feed rack or trough per head (m) |
|--------------|--|--|---|
| <35 | 1.3 | 2.0 | 0.35 |
| >35 | 1.9 | 2.8 | 0.35 |

² Council Directive 91/629/EEC of 19 November 1991 laying down minimum standards for the protection of calves (OJ L 340, 11.12.1991, p. 28).

³ Council Directive 91/630/EEC of 19 November 1991 laying down minimum standards for the protection of pigs (OJ L 340, 11.12.1991, p. 33).

2 Table 7.3: CATTLE: Pen dimensions and stocking densities for users

| Weights (kg) | Minimum floor area (m²) per animal when housed in groups | Minimum floor area (m²) per animal when housed singly | Minimum length of feed rack or trough per head (m) |
|--------------|--|--|---|
| 60 to 100 | 1.6 | 2.4 | 0.30 |
| 100 to 150 | 1.9 | 2.8 | 0.35 |
| 150 to 200 | 2.4 | 3.6 | 0.40 |
| 200 to 400 | 3.8 | 5.7 | 0.55 |
| >400 | 5.3 | 8.0 | 0.65 |
| Adult bull | _ | 16.0 | 0.65 |

Equines

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The shortest side shall be a minimum of 1.5 times the wither height of the animal. The height of indoor enclosures shall allow animals to rear to their full height.

7 Table 7.4: HORSES, DONKEYS AND CROSSBREDS: Dimensions for users

| Height at withers (m) | Minimum floor area (m²) per animal when housed in groups | Minimum floor area (m²) per animal when housed singly | Minimum length of feed rack or trough per head (m) |
|-----------------------|--|--|---|
| <1.47 | _ | 12 | _ |
| 1.47 to 1.60 | _ | 17 | - |
| >1.60 | _ | 20 | - |

1 2 **8. BIRDS**

- 3 During agricultural research, when the aim of the project requires that the animals are kept
- 4 under similar conditions to those under which commercial farm animals are kept, the keeping
- 5 of the animals shall comply at least with the standards laid down in Directives 98/58/EC,
- 6 1999/74/EC⁴ and 2007/43/EC⁵.

Chicken

- 8 Where these minimum enclosure sizes cannot be provided for scientific reasons, the duration
- 9 of the confinement shall be justified by the experimenter in consultation with veterinary staff.
- 10 In such circumstances, birds can be housed in smaller enclosures containing appropriate
- 11 enrichment.

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Table 8.1: CHICKEN: Cage/pen dimensions and stocking densities for users

| Weights (g) | Minimum floor area (cm²) per bird when housed in groups | Minimum floor area (cm²) per bird when housed singly | Minimum height (cm) | Minimum length of feed trough per bird (cm) |
|--------------|--|---|------------------------|--|
| <300 | 250 | 350 | 30 | 3 |
| 300 to 600 | 470 | 700 | 40 | 7 |
| 600 to 1200 | 830 | 1250 | 50 | 10 |
| 1200 to1800 | 950 | 1450 | 50 | 12 |
| 1800 to 2400 | 1200 | 1700 | 55 | 12 |
| >2400 | 1900 | 2800 | 75 | 15 |

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⁴ Council Directive 1999/74/EC of 19 July 1999 laying down minimum standards for the protection of laying hens (OJ L 203, 3.8.1999, p. 53).

⁵ Council Directive 2007/43/EC of 28 June 2007 laying down minimum rules for the protection of chickens kept for meat production (OJ L 182, 12.7.2007, p. 19).

Table 8.2: DUCKS: Cage/pen dimensions and stocking densities for users

| Weights (g) | Minimum floor area (cm²) per bird when housed in groups | Minimum floor area (cm²) per bird when housed singly | Minimum height (cm) | Minimum length of feed trough per bird (cm) |
|--------------|--|---|------------------------|--|
| <300 | 250 | 350 | 30 | 3 |
| 300 to 600 | 470 | 700 | 40 | 7 |
| 600 to 1200 | 830 | 1250 | 50 | 10 |
| 1200 to1800 | 950 | 1450 | 50 | 12 |
| 1800 to 2400 | 1200 | 1700 | 55 | 12 |
| >2400 | 1900 | 2800 | 75 | 15 |

Table 8.3: QUAILS: Dimensions for breeders and stock

| Minimum floor space allocation | | | | | |
|--------------------------------|-----------------------------|--------------------------|--|--|--|
| Weight (g) | When housed in groups (cm²) | When housed singly (cm²) | | | |
| <75 | 100 | 350 | | | |
| 75 to 100 | 150 | 350 | | | |
| 100 to 150 | 250 | 350 | | | |
| 150 to 250 | 250 | 400 | | | |

Optimal cage height 20cm

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Minimum length of trough per bird 4cm

1 2 Table 8.4: QUAILS: Dimensions for users

| Weights (g) | Minimum floor area (cm²) per bird when housed in groups | Minimum floor area (cm²) per bird when housed singly | Minimum height (cm) | Minimum length of feed trough per bird (cm) |
|-------------|--|---|------------------------|---|
| <150g | 250 | 350 | 20 | 4 |
| 150 to 250g | 250 | 400 | 25 | 4 |

4 Table 8.5: PIGEONS: Dimensions for users

| Weights (g) | Minimum floor area (cm²) per bird when housed in groups | Minimum floor area (cm²) per bird when housed singly | Minimum height (cm) | Minimum length of feed trough per bird (cm) |
|-------------|--|---|------------------------|--|
| All sizes | 800 | 1225 | 35 | 5 |

9. FISH 6

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9.1. Water supply and quality

Adequate water supply of suitable quality shall be provided at all times. Water flow in recirculatory systems or filtration within tanks shall be sufficient to ensure that water quality parameters are maintained within acceptable levels. Water supply shall be filtered or treated to remove substances harmful to fish, where necessary. Water-quality parameters shall at all times be within the acceptable range that sustains normal activity and physiology for a given species and stage of development. The water flow shall be appropriate to enable fish to swim correctly and to maintain normal behaviour. Fish shall be given an appropriate time for acclimatisation and adaptation to changes in water-quality conditions.

9.2. Oxygen, nitrogen compounds, pH, and salinity

Oxygen concentration shall be appropriate to the species and to the context in which the fish 18 are held. Where necessary, supplementary aeration of tank water shall be provided. The 19 concentrations of nitrogen compounds shall be kept low.

The pH level shall be adapted to the species and kept as stable as possible. The salinity shall be adapted to the requirements of the fish species and to the life stage of the fish. Changes in salinity shall take place gradually.

9.3. Temperature, lighting, noise

- 2 Temperature shall be maintained within the optimal range for the fish species concerned and
- 3 kept as stable as possible. Changes in temperature shall take place gradually. Fish shall be
- 4 maintained on an appropriate photoperiod. Noise levels shall be kept to a minimum and,
- 5 where possible, equipment causing noise or vibration, such as power generators or filtration
- 6 systems, shall be separate from the fish-holding tanks.

9.4. Stocking density and environmental complexity

- 8 The stocking density of fish shall be based on the total needs of the fish in respect of
- 9 environmental conditions, health and welfare. Fish shall have sufficient water volume for
- 10 normal swimming, taking account of their size, age, health and feeding method. Fish shall be
- provided with an appropriate environmental enrichment, such as hiding places or bottom
- substrate, unless behavioural traits suggest none is required.

9.5. Feeding and handling

- 14 Fish shall be fed a diet suitable for the fish at an appropriate feeding rate and frequency.
- Particular attention shall be given to feeding of larval fish during any transition from live to
- artificial diets. Handling of fish shall be kept to a minimum.

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1 **Bibliography** 2 3 Code of Practice for the housing and care of animals used in scientific procedures, Home 4 Office, 7 February 1989. 5 Code of Practice for the housing of animals in designated breeding and supplying 6 establishments, Home Office, 24 January 1995. 7 Code of Practice for the housing of animals in designated breeding and supplying 8 establishments: Supplement: Ferrets and gerbils, Home Office, 7 November, 2001. 9 Commission Recommendation 2007/526/EC of 18 June 2007 on guidelines for the 10 accommodation and care of animals used for experimental and other scientific purposes, 11 Official Journal of the European Union, L 197 Vol. 50, 30 July 2007. 12 Directive 2010/63/EU of the European Parliament and of the Council of 22 September 2010 13 on the protection of animals used for scientific purposes, Official Journal of the European 14 Union, L 276/33, October 2010. 15