

1 **E. Species-specific provisions for ferrets**

2

3 **1. Introduction**

4

5 Ferrets (*Mustela putorius furo*) are carnivores which under natural conditions feed on  
6 small mammals, birds, fish and invertebrates. They have complex hunting behaviour  
7 and tend to hoard food, but will not eat decayed matter.

8

9 Although in the wild the ferret is generally a solitary animal, there seem to be welfare  
10 benefits if they are housed in socially harmonious groups in captivity. Ferrets normally  
11 live in burrows, and thus in captivity they appreciate the provision of materials, such as  
12 tubes in which they can crawl and play games.

13

14 Ferrets usually breed once a year, mating in the spring. Male animals are hostile to,  
15 and will fight vigorously with, unfamiliar males during the breeding season. As a  
16 consequence, at this time single housing of males may prove necessary.

17

18 The ferret is an intelligent, inquisitive, playful and agile animal, and this should be  
19 taken into account in the design of the accommodation and when handling. A  
20 complex, escape-proof enclosure is required which provides opportunities to the ferret  
21 to exhibit a wide behavioural repertoire.

22

23 **2. The environment and its control**

24

25 2.1. Ventilation

26 (See paragraph 2.1. of the General section) It is important to attenuate the musk  
27 odour while minimising the risk of viral respiratory diseases, to which the ferret is very  
28 sensitive.

29

30 2.2. Temperature

31 Ferrets should be maintained in the temperature range of 15°C to 24°C. As ferrets do  
32 not have well-developed sweat glands, to avoid heat exhaustion they should not be  
33 exposed to high temperatures.

34

35 2.3. Humidity

36 It is considered unnecessary to control or record relative humidity as ferrets can be  
37 exposed to wide fluctuations of ambient relative humidity without adverse effects.  
38 However, to minimise the occurrence of respiratory disease, high humidity levels  
39 should be avoided, especially if the temperature is low.

40

41 2.4. Lighting

42 The source and type of light should not be aversive to the animals and particular care  
43 should be taken with albino ferrets.

44

45 Holding of ferrets under the natural twenty-four-hour light-dark cycle is acceptable.

46

47 Where the light part of the photoperiod is provided by artificial lighting, this should be a  
48 minimum of eight hours and should generally not exceed sixteen hours in any 24 hour  
49 period.

50

51 However, it should be noted the duration of light-dark cycles is important for the  
52 manipulation of the reproductive cycle in the ferret and the light period may be  
53 reduced to six hours and then increased (up to fifteen hours) to stimulate oestrus in  
54 the female. The male is light negative and requires opposite light cycles to the female  
55 to stimulate its season. Manipulation of the light cycle for males should commence  
56 several months before mating is required to ensure sperm maturity.

57

58 If natural light is totally excluded, low level night lighting should be provided to allow  
59 animals to retain some vision and to take account of their startle reflex.

60

61 2.5. Noise

62 Lack of sound or auditory stimulation can be detrimental and make ferrets nervous. A  
63 soft and varied background noise may stimulate the sensory and social development  
64 of the young ferret. However, sharp, loud unfamiliar noise and vibration have been  
65 reported to cause stress-related disorders in ferrets and should be avoided. It is  
66 important to consider methods of reducing sudden or unfamiliar noise in ferret  
67 facilities, including that generated by husbandry operations within the facility and also  
68 by ingress from outside sources. Ingress of noise can be controlled by appropriate

69 siting of the facility and by appropriate architectural design. Noise generated within the  
70 facility can be controlled by noise absorbent materials or structures. Expert advice  
71 should be taken when designing or modifying accommodation.

72

### 73 2.6. Alarm systems

74 (See paragraph 2.6. of the General section)

75

## 76 **3. Health**

77

78 (See paragraphs 4.1. and 4.4. of the General section)

79 As breeding can have a considerable impact on bodyweight and condition, jills should  
80 be assessed for continued suitability for mating by a competent animal technician, in  
81 consultation with the Named Veterinary Surgeon.

82

83 The following conditions in ferrets require expert advice and attention:

84 Virus infections – Ferrets are susceptible to a number of viral diseases, such as  
85 Aleutian disease and distemper. Human influenza virus may cause clinical  
86 disease in ferrets, and appropriate preventive measures should be in place to  
87 minimise the risk of infection.

88

89 Pregnancy toxæmia – This is a common consequence of feeding an  
90 inadequate diet during pregnancy to jills carrying large litters.

91

92 Oestrus induced anaemia/hyperoestrogenism – as the ferret is an induced  
93 ovulator, jills kept in the absence of a male during the breeding season may  
94 remain in oestrus for several months. Not only may the vulva become grossly  
95 swollen and susceptible to trauma, but also haematopoiesis is suppressed and  
96 severe anaemia may ensue.

97

## 98 **4. Housing, enrichment and care**

99

### 100 4.1. Housing

101 Animals should be kept in socially harmonious groups unless there are scientific or  
102 welfare justifications for single housing.

103

104 During the breeding season, adult males may need to be maintained singly to avoid  
105 fighting and injury. However, males can be maintained successfully in groups at other  
106 times.

107

108 Pregnant females should be housed singly only during late pregnancy, no more than  
109 two weeks prior to parturition.

110

111 Animals should not be weaned before 6 weeks of age, without good veterinary or  
112 husbandry reasons.

113

114 Separation of animals that are normally group-housed can be a significant stress  
115 factor. Where this is for a period of more than twenty-four hours, it should be regarded  
116 as severely compromising the welfare of the animals. Therefore, ferrets should not be  
117 single-housed for more than twenty-four hours without justification on veterinary or  
118 welfare grounds. For single housing for more than twenty-four hours on experimental  
119 grounds, [see paragraph 4.5.2 of the General section](#).

120

121 Where animals are single-housed, whether for scientific or welfare reasons, additional  
122 resources should be targeted to the welfare and care of these animals. Additional  
123 human socialisation time, and visual, auditory and, where possible, tactile contact with  
124 other ferrets should be provided for all single-housed animals on a daily basis.

125

126 The social behaviour of ferret should be taken into account by providing regular  
127 interaction with other ferrets through group housing and regular handling. In general,  
128 ferrets seem to benefit from such regular and confident handling and this should be  
129 encouraged as it results in better quality and more sociable animals.

130

131 Social behaviour in ferrets develops at an early age and it is important that the young  
132 ferret has social contacts with other ferrets (e.g. litter-mates) and with humans. Daily  
133 handling during this sensitive stage of development is a prerequisite for the social  
134 behaviour of the adult ferret. It is reported that the more frequent the interaction, the  
135 more placid the animal will become, and this interaction should be continued through  
136 into adult life.

137

138 Females should not be mated before 9 months of age.

139

140 Mating can be a prolonged and noisy affair, and can result injury to the female  
141 (particularly neck injuries). Therefore, careful monitoring for injuries is important, and  
142 veterinary advice should be sought when they occur. Mating should take place in a  
143 separate room to those animals with litters, as the disturbance can lead to  
144 cannibalism.

145

#### 146 4.2. Enrichment

147 The design of the ferret enclosure should meet the animals' species-and breed-  
148 specific needs. It should be adaptable so that innovation based on new understanding  
149 may be incorporated.

150

151 The design of the enclosure should allow some privacy for the ferrets and enable them  
152 to exercise some control over their social interactions.

153

154 Separate areas for different activities, such as by raised platforms and pen  
155 subdivisions, should be provided in addition to the minimum floor space detailed  
156 below. The ferret in captivity requires a dry, warm sleeping chamber, discrete eating  
157 and food storage areas and a vertical surface for scent-marking well away from  
158 sleeping and eating areas. A nest box and nesting material must be provided. Care is  
159 needed in the choice of nesting material to avoid damage to young at birth  
160 (desiccation, damage to the umbilical vessels).

161

162 Provision of containers and tubes of cardboard or rigid plastic, and paper bags,  
163 stimulates both investigative and play behaviour. Water baths and bowls are used  
164 extensively by ferrets.

165

#### 166 4.3. Enclosures – dimensions and flooring

##### 167 4.3.1. Dimensions

168 These guidelines are intended to encourage the social housing of ferrets and to permit  
169 adequate enrichment of the environment. It should be noted that within this concept  
170 and strategy every encouragement is given to holding ferrets in large and socially

171 harmonious groups both to increase the available floor space and to enhance the  
172 socialisation opportunities.

173

174 Animal enclosures, including the divisions between enclosures, should provide an  
175 easy to clean and robust environment for the ferrets. Their design and construction  
176 should seek to provide an open and light facility giving the ferrets comprehensive sight  
177 of other ferrets and staff, outside of their immediate animal enclosure. There should  
178 also be provision for the ferrets to seek refuge and privacy within their own enclosure  
179 and, in particular, away from the sight of ferrets in other enclosures.

180

181 As ferrets have a remarkable ability to escape, the design of the enclosure should be  
182 such that the animal is unable to escape or to injure itself should any such attempt be  
183 made.

184

185 The recommended minimum height of the enclosure should be 50 cm. The ferret  
186 enjoys climbing and this height facilitates provision of suitable enrichment. The floor  
187 space should provide an adequate area for movement and to allow the animal the  
188 opportunity to select sleeping, eating and urination/defecation areas. In order to  
189 provide enough space for environmental complexity, no animal enclosure should be  
190 less than 4500 cm<sup>2</sup>. Minimum space requirements for each ferret are as follows:

191

192 **Table E.1. Ferrets: Minimum enclosure dimensions and space allowances**

	Minimum enclosure size (cm <sup>2</sup> )	Minimum floor area per animal (cm <sup>2</sup> )	Minimum height (cm)
Animals up to 600g	4500	1500	50
Animals over 600g	4500	3000	50
Adult males	6000	6000	50
Jill and litter	5400	5400	50

193

194 Animal enclosures should be of a rectangular shape rather than square, to facilitate  
195 locomotor activities.

196

197 Constraint in less than the above space requirements for scientific purposes, such as  
198 in a metabolism cage, may severely compromise the welfare of the animals  
199

#### 200 4.3.2. Flooring

201 The flooring for ferret accommodation should be a solid continuous floor with a smooth  
202 non-slip finish. Additional enclosure furniture such as beds or platforms should provide  
203 all ferrets with a warm and comfortable resting place.

204

205 Open flooring systems such as grids or mesh should not be used for ferrets.

206

#### 207 4.4. Feeding

208 (See paragraph 4.6. of the General section)

209 The ferret is a carnivore, with a particular requirement for a high level of animal protein  
210 and fat. It eats to satisfy calorie requirements and therefore can become protein-  
211 deficient if fed diets which have a high proportion of carbohydrates. There is little  
212 requirement for dietary fibre.

213

#### 214 4.5. Watering

215 (See paragraph 4.7. of the General section)

216

#### 217 4.6. Substrate, litter, bedding and nesting material

218 Bedding material is required for all ferrets. In addition, nesting materials such as hay,  
219 straw or paper should be provided. Deep litter systems are considered to provide  
220 additional enrichment.

221

222 It is good practice to use some litter or substrate material at least to facilitate cleaning  
223 and minimise the necessity to wash/hose down regularly.

224

#### 225 4.7. Cleaning

226 Wet cleaning by hosing down of animal enclosures should not result in ferrets  
227 becoming wet. When animal enclosures are hosed down, the ferrets should be  
228 removed from the enclosure to a dry place and returned only when it is reasonably  
229 dry.

230

231 Ferrets tend to defecate against a vertical surface in one area of the enclosure.  
232 Provision of a litter tray may be beneficial and reduces the frequency of cleaning  
233 required for the remainder of the enclosure.

234

235 All excreta and soiled materials should be emptied at least daily, and more frequently  
236 if necessary, from litter trays and/or removed from all other areas used by the animals  
237 as a toilet.

238

239 Frequency of cleaning of the remainder of the enclosure should be determined on  
240 factors such as stocking density, enclosure design and stage of breeding e.g.  
241 periparturient period.

242

#### 243 4.8. Handling

244 (See paragraph 4.10. of the General section)

245

#### 246 4.9. Humane killing

247 (See paragraph 4.11. of the General section)

248

#### 249 4.10. Records

250 (See paragraph 4.12. of the General section)

251

#### 252 4.11. Identification

253 (See paragraph 4.13. of the General section)

254 The preferred method of permanent identification is by microchipping. However, use of  
255 collars, as for cats, or coat dyes for albino animals may also be suitable methods of  
256 identification. Ear tattooing and ear tags are not suitable.

257