

Guidance on Furnishings and Enrichment for Laboratory Animals

The Swedish National Committee for the Protection of Animals Used for Scientific Purposes has developed this guidance document to support those working with laboratory animals when selecting furnishings and enrichment.

Introduction

The National Committee has previously issued a statement clarifying the difference between furnishings and enrichment for laboratory animals.

The Committee considers that:

- **Furnishings** refers to resources in the enclosure that meet the animals' basic needs.
- **Enrichment** refers to resources provided to the animals to offer stimulation beyond their basic needs.

The full statement can be found here:

[Statement on furnishings and enrichment for laboratory animals | Swedish 3Rs Center \(jordbruksverket.se\)](https://jordbruksverket.se/statement-on-furnishings-and-enrichment-for-laboratory-animals)

Access to both furnishings and enrichment is important for animal welfare. What constitutes furnishings and what constitutes enrichment varies between species. It is also important to consider how the resources fit within the specific scientific procedure. This guidance document can be used as a source of ideas and inspiration when selecting furnishings and enrichment for different species.

How was this guidance document developed?

To gather information for this guidance document, the Swedish 3Rs Center organised a workshop on furnishings and enrichment as part of the 2025 annual meeting for Animal Welfare Bodies. During the workshop, participants shared and compiled suggestions on furnishings and enrichment for different species.

The National Committee and the 3Rs Center have reviewed and further developed the suggestions gathered during the workshop, which form the basis of this guidance document. In this process, we have:

- revised the wording to achieve consistent terminology across species

- expanded the lists for certain species with relevant suggestions identified for other species
- added further practical examples within certain categories of enrichment, such as different types of bedding material and toys.

The Committee considers this guidance document to be a living document and welcomes suggestions for updates and additions. Please contact the 3Rs Center (3Rcenter@jordbruksverket.se) if you have comments or suggestions on how the document could be further developed.

What does the guidance document include?

The document consists of lists of suggested furnishings and enrichment for different species. It also includes information on, and references to, requirements concerning furnishings and enrichment in Swedish legislation on animals used for scientific purposes.

The document covers the species that were discussed during the workshop. Additional species may be included in future updates if there is a need and relevant knowledge becomes available.

The following species are included in the document:

- Mousepage 4
- Rat.....page 5
- Rabbitpage 6
- Pig.....page 7
- Horse.....page 8
- Birdspage 9
- Fishpage 10

What does the legislation say about furnishings and enrichment?

The basic requirements for furnishings and enrichment for animals used in scientific procedures are set out in Chapter 15, Sections 7–9 of Statens jordbruksverks föreskrifter och allmänna råd (SJVFS 2025:28) om försöksdjursverksamhet.

In addition to these requirements, specific provisions apply to certain species, as described in Chapters 16–26 of the same regulations.

Examples of requirements in the regulations include that animals used in scientific procedures:

- must have access to suitable bedding material as well as resting and sleeping areas, allowing all animals to rest and sleep at the same time;

- must be housed in a complex environment that enables them to perform a broad range of natural behaviours; and
- must have access to enrichment adapted to their species-specific and individual needs.

The regulations do not describe in detail how the animals' environment should be furnished and enriched. However, the General Recommendations accompanying Chapter 15, Sections 8–9 state that the natural behaviours that should primarily be promoted are movement, rest, comfort, occupation, foraging, hiding and social interaction. The General Recommendations further state that the animals' environment may be enriched by providing opportunities for physical activity, exploratory behaviour, and fine motor and cognitive activities appropriate to the species.

Risk assessment

When planning which furnishings and enrichment to use, you need to make an overall assessment of both the animals' characteristics and the characteristics of the resources provided. Where animals are to be used in scientific procedures, the conditions of the procedure must also be taken into account.

The assessment should take into consideration factors such as the animals' species, background and age, as well as individual factors such as surgical wounds, sensitive skin, reduced mobility or implanted sensors that protrude from the body.

You also need to consider the characteristics of, and any potential risks associated with, the furnishings or enrichment that you intend to use. This applies regardless of whether the resources or materials are produced in-house or purchased from a supplier. Examples include dusty materials, materials that may release substances into the water, materials that may become sharp if damaged, or materials that may make daily observations more difficult.

Based on this overall assessment, you can determine which furnishings and enrichment are appropriate in your particular circumstances.

Mouse

Furnishings

- Bedding material¹
- Nesting material²
- Houses or shelters that all animals can use simultaneously³
- Opportunity to gnaw, for example using gnawing sticks
- Opportunity to climb, for example using ladders

Enrichment

- Different types of bedding material, for example wood shavings and coconut fibre
- Different types of nesting material, for example shredded paper, paper wool, shredded cardboard, hay and straw
- Additional houses or shelters
- Different types of houses and shelters, for example suspended houses
- Additional opportunities for climbing and balancing, for example ropes, swings and ladders
- Raised area, shelves or other structures that adds further dimensions to the cage
- Gnawing sticks of different sizes and shapes
- Scented materials, for example scented gnawing sticks
- Feed that stimulates natural behaviours, for example nuts or seeds such as millet and sunflower seeds
- Suspended materials (gnawing sticks, nesting material, feed and similar items), for example using cable ties, hay racks or suspended feed holders
- Foraging, for example by scattering feed in the cage or providing food puzzles
- Wooden balls or other toys
- A partition within the cage that mice can move around, for example in the shape of a T
- Opportunity to use a separate area as a "toilet"
- Play area outside the enclosure with a variety of resources, for example opportunities for digging
- Handling and daily contact with staff
- Training through positive reinforcement
- Varied enrichment, for example through a rotating schedule

¹ Chapter 15, Section 7 of SJVFS 2025:28.

² Chapter 16, Section 4 of SJVFS 2025:28.

³ Chapter 15, Section 7 of SJVFS 2025:28.

Rat

Furnishings

- Bedding material⁴
- Houses or shelters that all animals can use simultaneously⁵
- Opportunity to gnaw, for example using gnawing sticks
- Opportunity to climb, for example using ladders
- Sufficient cage size to allow natural behaviours, for example standing on the hind legs
- Nesting material during breeding⁶

Enrichment

- Different types of bedding material, for example wood shavings and coconut fibre
- Nesting material⁷, for example shredded paper, paper wool and shredded cardboard
- Additional houses or shelters
- Different types of houses and shelters, for example suspended houses
- Additional opportunities for climbing, for example hammocks and additional ladders
- Raised area, shelves or other structures that adds further dimensions to the cage
- Gnawing sticks of different sizes and shapes
- Feed that stimulates natural behaviours, for example nuts or seeds such as millet and sunflower seeds
- Suspended materials (gnawing sticks, nesting material, feed and similar items), for example using cable ties, hay racks or suspended feed holders
- Foraging, for example by scattering feed in the cage or providing food puzzles
- Wooden balls or other toys
- Opportunity to use a separate area as a "toilet"
- Open cages that provide access to a wider range of scents
- Play area outside the enclosure with a variety of resources, for example opportunities for digging
- Handling and daily contact with staff
- Training through positive reinforcement
- Varied enrichment, for example through a rotating schedule

⁴ Chapter 15, Section 7 of SJVFS 2025:28.

⁵ Chapter 15, Section 7 of SJVFS 2025:28.

⁶ Chapter 16, Section 4 of SJVFS 2025:28.

⁷ Chapter 16, Section 4 of SJVFS 2025:28.

Rabbit

Furnishings

- Bedding material⁸
- Raised area⁹
- Houses or shelters that all animals can use simultaneously¹⁰
- Opportunity to gnaw, for example using gnawing sticks
- Nesting material during breeding¹¹

Enrichment

- Different types of bedding material, for example wood shavings, hay and straw
- Gnawing sticks of different sizes and shapes, for example natural twigs and branches
- Scented materials, for example scented gnawing sticks, fresh vegetables, herbs and plants
- Suspended materials (gnawing sticks, nesting material, feed and similar items), for example using cable ties, hay racks or suspended feed holders
- Foraging, for example by scattering feed in the cage, providing cardboard boxes filled with hay and some pellets, or using a treat ball
- Loose objects or toys
- Tubes or tunnels
- Digging box, for example filled with sand or paper
- Opportunity to use a separate area as a "toilet"
- Opportunity to see, hear and smell other rabbits when housed individually
- Play area outside the enclosure with a variety of resources
- Opportunity to move around in a larger area
- Outdoor access
- Handling and daily contact with staff
- Training through positive reinforcement

⁸ Chapter 15, Section 7 of SJVFS 2025:28.

⁹ Chapter 17, Sections 2–3 of SJVFS 2025:28.

¹⁰ Chapter 15, Section 7 of SJVFS 2025:28.

¹¹ Chapter 17, Section 6 of SJVFS 2025:28.

Pig

Furnishings

- Bedding material¹²
- Opportunity to root
- Heat lamp when required, for example during breeding

Enrichment

- Outdoor access with resources that enable body temperature regulation¹³, for example a shower, pool, mud bath and bedding material
- Different types of bedding material, for example wood shavings and straw
- Additional opportunities to root, for example in different materials
- Foraging, for example by scattering feed in the pen, providing a treat ball, or offering ice treats
- Scented materials, for example toys coated with fruit or spices
- Loose objects or toys, for example cardboard boxes and paper sacks
- Suspended hay ball
- Fixed brush for scratching
- Suspended enrichment items, for example chains, mops and bells
- Opportunity to get wet indoors, for example using a shower or pool
- Opportunity to move around in a larger area
- Play area outside the enclosure with a variety of resources
- Handling and daily contact with staff
- Training through positive reinforcement
- Varied enrichment, for example through a rotating schedule

¹² Chapter 15, Section 7 of SJVFS 2025:28.

¹³ General Recommendation accompanying Chapter 2, Section 2 of djurskyddslagen (2018:1192), set out in Chapter 22, Section 1 of SJVFS 2025:28.

Horse

Furnishings

- Bedding material¹⁴
- Visual, auditory, olfactory and tactile contact with other equids when housed individually¹⁵
- Opportunity for daily free movement using natural gaits¹⁶
- Daily access to forage

Enrichment

- Opportunity to graze during the summer¹⁷
- Different types of bedding material, for example wood shavings and straw
- Straw, if not used as bedding material
- Opportunity to chew materials other than feed in the box, for example logs, spruce branches or browse
- Foraging, for example by providing a treat ball
- Shatterproof mirror, allowing the horse to see itself
- Living in a herd or at least in pairs
- Loose housing in groups
- Paddock with a varied environment, for example uneven terrain, varied surfaces, logs, a lake or a pond
- Shower or cooled areas during the summer
- Fixed brush for scratching
- Opportunity to roll on a suitable surface
- Handling and daily contact with staff
- Training through positive reinforcement, for example from the ground, under saddle, during long-reining or when driven
- Outdoor activities, for example riding or walking

¹⁴ Chapter 15, Section 7 of SJVFS 2025:28.

¹⁵ Chapter 22, Section 2 of SJVFS 2025:28.

¹⁶ Chapter 22, Section 3 of SJVFS 2025:28.

¹⁷ General Recommendation accompanying Chapter 2, Section 2 of djurskyddslagen (2018:1192), set out in Chapter 22, Section 1 of SJVFS 2025:28.

Birds

The workshop on which this guidance document is based collected suggestions and ideas regarding furnishings and enrichment for birds in general. Different bird species naturally have different requirements for furnishings and enrichment. You should therefore evaluate the suggestions below in relation to the specific species with which you plan to work.

The following requirements are set out in the legislation:

- Zebra finches and pigeons must be able to perform short flights¹⁸
- Domestic fowl and pigeons must have access to perches so that all animals can rest simultaneously¹⁹
- Domestic fowl must have access to litter for pecking, scratching and dustbathing²⁰
- Ducks and geese must have access to a pond²¹

Resources that may serve as furnishings or enrichment for birds

- Opportunity to perform short or long flights
- Opportunity to perch at different heights and on perches of different diameters and materials
- Dust bath
- Opportunity to bathe, for example in a bird bath or under a shower
- Nesting material, for example hay, straw, shredded paper and cardboard
- Shelters
- Mirrors
- Group housing or other forms of social contact
- Mixed-age groups or opportunities for chicks to hear the sounds of adult chickens
- Toys, for example bells and pine cones
- Foraging, for example using a treat ball or by providing other opportunities to work for feed
- Shrubs and other plants
- Opportunity to swim and, where appropriate, dive, for example in a pond or pool
- Handling and daily contact with staff
- Training through positive reinforcement

¹⁸ Chapter 23, Section 2 of SJVFS 2025:28.

¹⁹ Chapter 23, Section 3 of SJVFS 2025:28.

²⁰ Chapter 23, Section 3 of SJVFS 2025:28.

²¹ Chapter 23, Section 4 of SJVFS 2025:28.

Fish

The National Committee has previously developed guidance on furnishings for fish housed in a laboratory environment. The guidance includes both general recommendations applicable across species and specific recommendations for 41 species or groups of species. Therefore, this section focuses on resources that may serve as enrichment for fish.

Further information on furnishings for fish housed in a laboratory environment can be found in our guidance document.

[Aquarium furnishings for fish housed in a laboratory environment | Swedish 3Rs Center \(jordbruksverket.se\)](#)

Resources that may serve as enrichment for fish

- Substrate²², or an image of substrate, for example gravel
- Shelters²³, for example caves
- Spatial structures that create hiding places
- Live or artificial plants, either rooted or floating
- Live food, for example Rotifera, Artemia or Mysis
- Play mates for social species, for example surplus fish marked by tattooing
- A light cycle that includes "sunrise" and "sunset"
- Variation in water temperature throughout the day to reflect the species' natural circadian temperature rhythm

²² General Recommendation accompanying Chapter 25, Section 4 of SJVFS 2025:28.

²³ General Recommendation accompanying Chapter 25, Section 4 of SJVFS 2025:28.