

## Rabbits Welfare in farm rearing systems



©IZSLER

### Biology and needs of rabbits

**Knowing the physiological and ethological needs of rabbits (does, kits and growing rabbits) is essential to avoid welfare problems related to the rearing environment.**

- Strictly herbivorous, rabbits need fiber, especially important in the early post-weaning period when low fiber intake is associated with an increase in digestive disorders.
- Rabbits are homeotherm animals. Adults are sensitive to high temperatures because of their fur, and kits are more vulnerable to cold due to their limited thermoregulatory mechanism.
- They rest during 12h-18h a day. Adequate and clean floor is essential to adopt relaxed postures which are also a thermoregulation mechanism.
- Rabbits are very alert animals due to the high predator pressure. They need places to hide as well as enough space and height to sit up on their hind legs with the ears upright in order to check the environment.
- When performing exploratory behaviours, rabbits dig and sniff the surrounding environment. These behaviours are sometimes associated with gnawing.
- As gregarious animals, rabbits need social interactions with conspecifics. Social interactions can be both positive (allogrooming) and negative (aggression).
- Rabbits need enough space to perform hops and turn round.
- Before giving birth, mothers build a nest with optimal nesting materials as well as their hair.

- Young kits are very vulnerable and dependent of the mother. The nest quality, a proper maternal behaviour and a good condition of the doe are important factors for the survival of growing kits.



©IRTA

### Legislation

There is no specific law protecting rabbits. Their protection is therefore subject to the general indications dictated by the Council Directive 98/58/EC, which defines the minimum generic requirements for the protection of animals kept for breeding purposes. In order to define more specific indication, some Member States have developed guidelines for a more respectful farming of rabbits.

**Council Directive 98/58/EC** sets down general standards for animals kept for farming purposes. Article 4 states that: “Member States shall ensure that the conditions under which animals (...) are bred or kept, having regard to their species and to their degree of development, adaptation and domestication, and to their physiological and ethological needs in accordance with established experience and scientific knowledge, comply with the provisions set out in the Annex.”

# Rabbits Welfare in farm rearing systems - Recommendations



## Environment



### Cage/Pen structure

- **Facilities:** clean and not harmful (no edges, broken or sharp structures).
- **Available surface:** A minimum of 800 cm<sup>2</sup> per rabbit.
- **Stocking density** optimal in growing rabbits ≤ 32 kg/m<sup>2</sup>.
- **Open-top cage** to allow rabbits to freely stand up on hind legs and perform alert, exploratory behaviours and social interactions.
- **Nesting material:** adequate in quantity and quality (wood shavings, straw, hay, hemp or synthetic fiber) in order to maintain kits' thermal comfort.

- **Lighting program:** at least 50 lumen/m<sup>2</sup> or 50 lux and natural light in addition to artificial lighting (to allow visual contact, normal activity). At least 8 hours of darkness per day (nocturnal activity) must be provided. In the case of artificial light, a crepuscular transition (30 minutes to two hours) is important.
- **Temperature and humidity:** room temperature should be between 18-21°C throughout the year, except in summer/warm season where it has to be at least 3°-5° lower than the outside temperature (but never exceed 30°). Relative humidity value: 60-70% (for optimal ambient temperatures between 15-20°C). The presence of a thermo-hygrometer help for a better control of these parameters.
- **Ventilation:** forced and automatic ventilation allow to better control temperature and ammonia concentration (especially in warm season). The entry of the air flow should be from below (avoid respiratory disease).
- **Dustiness control:** by limiting the use of floury foods and periodically removing hair, dust or cobwebs (respiratory diseases control).
- **Cleanliness:** the housing environment, as well as cages, drinkers and feeders, must be clean and free from soiling.



### Biosecurity and hygiene

- **Microbiological quality testing** of the environment with environmental swabs and specific culture medium.
- **Newly introduced animals:** quarantine and assessment of health status (e.g., colibacillosis).
- **Semen provision** from qualified and authorized centres.
- **Cleaning and disinfection:** scheduled and systematic (rooms, nests, cages, drinkers and feeders, means of transport, personnel before entering the facilities).
- **Visitor control:** entry/exit records.
- **Dead animals:** immediate removal of dead animals and recording of mortality.
- **Structures** and areas free of cracks, fissures and rust.
- **Silos:** periodic emptying and cleaning (to avoid accumulation of wet and/or mouldy feed).
- **Water** of good quality and periodically tested.
- **Drinking lines:** regularly cleaned to avoid accumulation of biofilm.
- **Rodent and pest control**




## Management

- **Inspections:** all rabbits should be checked at least once a day (health check); nests should be controlled frequently to reduce soiling.
- **Artificial insemination/mating:** performed on rabbits who can support pregnancy and lactation without challenging their health only by competent trained staff (A.I.), according to law prescriptions and biosecurity measures. Young females are not to be inseminated before 4-5 months of age (75/80% of their final weight).
- **Weaning:** weaning age shall not be less than 25 days. After weaning littermates should stay together in the same breeding cage or pen as long as possible.
- **Diet:** a balanced diet (high fibers) help to minimise gastrointestinal disorders in growing rabbits and supports gestation and lactation of does.



## Environmental Enrichment

- **Plastic mat footrests** over wire mesh floor to reduce the development of pododermatitis and sore hocks.
- **Hay, straw or wood** supplements to reduce stereotype behaviours.
- **Platforms** in order to satisfy does' need for isolation from its litter, increase locomotor activity, provide more floor space and provide a shelter.
- **Hiding places** (pipes, platforms) to provide a place to hide and can help to reduce the number of animals culled because of aggressive interactions.
- **Gnawing sticks** in order to reduce oral stereotypies, excessive growing of incisors and aggressions in group-housed rabbits.