

# Rearing chicks and young rabbits before their transfer to pasture

The chicks, when they arrive at the farm, are installed in structures with controlled temperature, good ventilation and a bed of sawdust on which they can rest. Drinking water and food are freely available. They do not move to the field for four weeks. Adult rabbits are raised in individual cages. When the female is receptive, she moves to the male's cage where copulation takes place. After their birth, the young (3 to 12 per litter) live with the mother until they are weaned and taken to pasture, which occurs approximately when they are one month old.

## ■ Chick installation and rearing

### - Structures for installing chicks on the farm

The chicks are installed in closed and isolated structures, consisting of a brood room, which is a large box where the temperature is high, and a front yard (Figure 1). Before the chicks arrive, the structure must be fully cleaned and disinfected, and the drinkers and feeders clean and full. The size of the structure depends on the number of chicks to be raised; it is essential that they have enough space to develop. In the Polyfarming project the structure is prepared for 200 chicks, although after a week they are separated into two batches.

The best temperature for rearing newly-hatched chicks is 37° C. This temperature is gradually reduced until reaching 30° C at the end of the first week of life. The temperature increase is achieved with special infrared lamps of which there are several models on the market. The humidity of the breeding area should not exceed 60%, which is achieved by maintaining good ventilation. Structures must always be closed and protected from possible predators.

### - Feeding and caring for the chicks until they are transferred to the pasture

The chicks usually arrive at the farm one day old, all having received the basic vaccines. They are not taken to pasture for four weeks. Initially there are 200 in each structure, and after a week they are separated into two boxes and 100 are put in each one.

From day one, the chicks must have drinking water and food freely available (Figure 1). The chicks' diet consists of granulated compound feed for rearing initiation. They should not be given grains or grass until they are one month old. Apple cider vinegar is added to the water, which provides vitamins and minerals to maintain their internal balance and improve their immune system. Subsequently, fermented garlic is also added, which has an effective antiparasitic power.



Figure 1. Chicks recently installed in the rearing structure, Planeses farm (Girona). Photo: Marc Gràcia.



Figure 2. Spreading biochar on the chicks' bed, Planeses farm (Girona). Photo: Ángela Justamante.

The chicks must have a litter or bed on which they can rest. Beds can be made of various materials. In Polyfarming, a 20-25 cm high wood sawdust bed is used in which microorganisms and biochar are incorporated so that it is composted (Figure 2). The humidity of the beds must be controlled so that it is always between 20% and 25%. After 10 days, and to avoid compaction, the bed is stirred with a rototiller, first every 4 days and then every two. This is a way to avoid having to change the bed continuously. The alternative is to put a little sawdust on the cement surface and change it regularly. In the Polyfarming system the compost obtained from the chick litter is later used in the garden.



**Figure 3.** Individual cage for rearing farm rabbits, Planeses farm (Girona). Photo: Marc Gràcia.



**Figure 4.** Young rabbits in the nest. Photo: Núria Anglada.

## ■ Reproduction and rearing of young rabbits

### - Cages for adult rabbit maintenance

**Adult rabbits**, both male and female, **need a clean, well-ventilated living space** that is protected from rain, wind, and excessive temperatures. The rabbits are placed in individual **wooden or metal cages made of galvanised wire** approximately 100x50 cm in size and 40 cm high (**Figure 3**). The fact that rabbits are raised in individual cages **allows greater control of their reproduction and better sanitary control**, which includes cleaning and disinfecting the cage and a lower risk of contagion. It is important that the cages are easy to clean and that they prevent the rabbits from escaping or being attacked by possible predators.

### - Reproduction of rabbits

For copulation, the female moves to the male's cage. If the female is capable of interbreeding and the male is active, mating takes place almost immediately. The courtship is very short: the male caresses the female, stimulates and mounts her, and in a few seconds ejaculation occurs. After copulation, it is better to return the female to her cage as soon as possible.

If the mating has been successful and there is a pregnancy, **gestation lasts 31 days**. Twenty-five days after mating, it is necessary to provide the female with dry straw or wool to prepare her nest. **Litters are usually between 3 and 12 young (Figure 4)**. There are different ideas about when to reunite the females that have just given birth: just after doing so, 10-12 days later, or when the weaning of the kits ends a month later.

### - Care of the kits until their transfer to the pasture

The female shares space with the kits until they are weaned. **The lactation period could last a maximum of 56 days**, although it is during the first three weeks when the kits feed only on milk, then they replace it in their diet with feed. During the pregnancy and lactation period, the female increases the amount of daily food she needs. In these phases it is important that there is food and water always available in the cages. **The young are usually separated from their mother at about a month of age**. At that time, before being taken to the field, the young rabbits are given the enterotoxin vaccine.