From kindling to weaning

This section contains important elements of the management of animals between the week before kindling and weaning. The various aspects of artificial insemination can be found in the Fact No. 3.1.

The management of the animals during the kindling is essential to the results of the kindling group especially for nulliparous females.

1) Preparation for kindling

→ Transfer of females

- In the all-in/all-out system, females are transfered at least 6 days before the start of kindling.
  Transfer the animals in a dry and disinfected room at a temperature **of 18°C minimum.**
- For other systems, the preparation of kindling must begin at least 5-6 days before the start of kindling: cleaning and disinfection of kindling cages, transfer of females.

→ Feeding

- **Pregnant females:** *ad-libitum* feeding with lactation feed.
- **Non-pregnant females:** rationing feeding with a suitable amount distributed to the animals (350 kcal / day).

→ Preparation of nests

- Put dusted wood chips in the nests.

Open access to the nest at least 4 days before the beginning of births.

- Confirm that all females are in the nest **especially nulliparous.**

If a female is not in the nest, lock it in for 1 hour.

- Avoid stressing the animals as much as possible (noise, work...)

2) During the kindling

→ The birth takes place over 2 / 3 days.
Control the kindlings at least twice a day.
For inseminations on Thursday, the birthings take place mainly on Sunday and Monday.

→ Remove waste from birth, dirty chips and dead or dying rabbits.
→ Add clean chips in sufficient quantity.
→ Count the number of young rabbits born alive and dead.
→ Eliminate rabbits too light.

Begin to limit litter size: reduce the number of rabbits in large litters (13 and more) to 12 rabbits.
Remove from litters the biggest young rabbits and adopt them to another female.

If the rabbits did not drink → Check that the female produces milk:

- If not, withdraw all its rabbits and adopt them to another female.
- If so, enclose the female a moment with its rabbits and control the suckling.

Perform a lactation monitoring by opening each day the nests of the females in the first kindling. This lactation control should be stopped after artificial insemination.

On the morning of the 33rd day of gestation *(Tuesday for A.I. performed on Thursday),* **palpate females that did not do give birth:**

- If the female is pregnant, trigger kindling by performing an injection of oxytocin.

3) Balancing the litters (équilibrage)

→ As soon as the number of births allows, begin to balance and homogenize by removing and / or adding rabbits to obtain homogenous litters with an objective of:

- Kindling No. 1 : 9 rabbits,
- Kindling No. 2 : 10 rabbits,
- Kindling No. 3 and more: 10/11 rabbits.

It is advisable to homogenize litters of young rabbits by removing large rather than small rabbits that adapt better to a new litter.

4) 3 days after the end of kindling

→ *Friday for birth that took place on Monday-Tuesday (AI on Thursday).*

→ Make a new control of all nests to remove the dead rabbits and to make, if necessary, a new balancing with an objective of:

- Kindling No. 1 : 8 rabbits,
- Kindling No. 2 : 9/10 rabbits,
- Kindling No. 3 and more: 10/11 rabbits.

→ Wean females without milk

The number of young rabbits left with the female is to adapt to the prolificacy of the AI group, the range of feeds available and the health status of livestock.

Recommendations – Balancing litters to 11 young rabbits from the 3rd kindling

The increase in productivity obtained by balancing litters to 11 young rabbits is about **0,6 to 0,8 weaned rabbit / birth,** or a gain of **7 to 10% in the global productivity of kg / A.I.** with females in 3rd kindling and more.

Add 1 additional rabbit per litter is an interesting technic but that requires taking some elements into account:

- Only suitable for **females in 3rd kindling or more** which have shown good maternal qualities.
- **The prolificacy level of the farm**: below 10 rabbits born alive per birth in average, the method requires to keep young rabbits unviable with a too small weight.
- **Work in the nest:** it is essential to realize a good and homogeneous litter by the balancing work. It is also essential to **control the nest regularly.**
  The **3 days after birth control** has to be performed strictly in order to correct problems of homogeneity and identify litters with problems.
- **The feeding program**: it is recommended to distribute 2 types of feed in maternity, including a lactating feed distributed until 21-22 days after birth. This feed must have a higher starch level in order to maintain body condition of females and to avoid a decrease of the young rabbits weaning weight.

- **Vitamins and hepatoprotective:** validate your supplementation program to support females during lactation and gestation (See Fact No. 6.2).
- **Paradox of the seasons**: for economic reasons, it would be more interesting to practice litter balancing to 11 rabbits during summer to produce more meat rabbits in autumn. It is precisely during summer that feed intake of female is reduced and that practice has to be limited in order to avoid negative effect on the whole of its career.

Comparison between litter balancing to 10 and 11 rabbits
(Results 2010-2011 – 1440 Births on 3 farms)

	10	**11**	*Difference*
Weaned / litter	9.50	10.18	*+0,68*
Viability Birth / Weaning	95%	92,3%	*-2,7%*
Productivity in kg / AI	19.70	21.30	***+1.6 kg / AI (+8%)***

This practice can be applied according 2 different strategies:

- **From time to time**, in this case it is not necessary to modify the technical management of the animals.
- **Continuously**, it is necessary to adapt the feeding program to support body condition of female and to maintain performance level.

The quality of work in the nest (balancing and homogenization) during the week following the births will have a decisive impact on the quality of the weaning (viability, weight and homogeneity of the weight) and the final result of the AI group.

5) <u>During lactation</u>

→ Make a daily inspection of nests and record the mortality of young rabbits and females → Intervene if necessary.

→ Keep clean nests.

→ Remove sick or dying rabbits.

→ Identify females with a health problem to cull at weaning.

It is possible to monitor the growth of young rabbits during lactation (see growth chart on page 3 or Fi-cial-016).

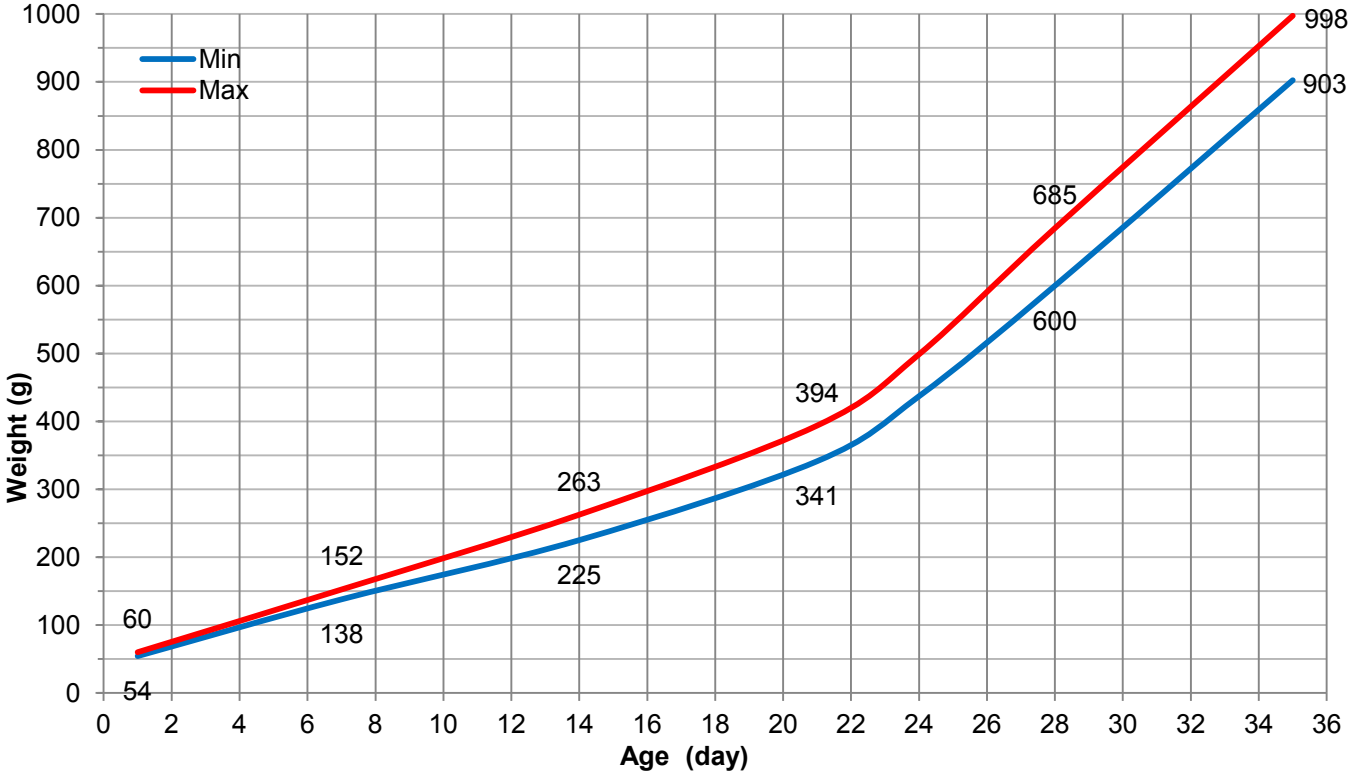
6) The setting up of rabbits on wire mesh

Between 21 and 25 days of age depending on the season and the feeding program.

- Remove nests and partitions
- Maintain room temperature at least 18°C.

Growth curve of rabbits from 0 to 35 days

Up to 14 days, the weights are estimated after lactation



7) Weaning

→ The weaning can be done between the age of 28 and 35 days.

→ Take out culled females when previous AI group animals go to the slaughterhouse. It is important to pay attention of waiting times for any treatments performed.

→ Transfer the females in the birthing room to prepare for next kindling.

→ Divide young rabbits into different fattening cages with **a maximum density of 18 rabbits / m².**

During the allocation of rabbits, avoid mixing them up between litters (health

risks).

Start the adapted rationing program (Fact No. 4.1).