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SKA Meneghin

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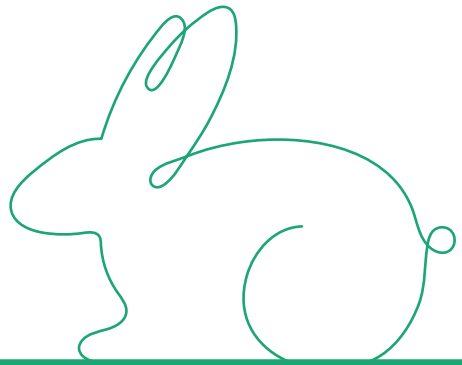
# PRODUCTION PROJECT

## *semi-intensive*

HAND KEY PROJECT

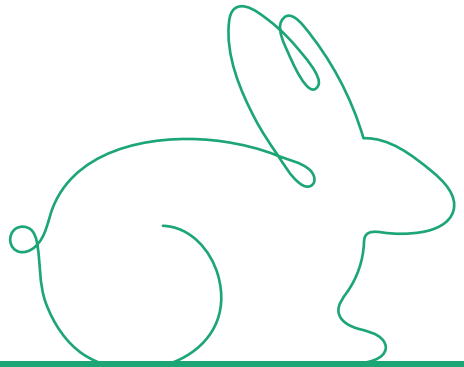


**INDEPENDENCE | INNOVATION | SECURITY**

HAND KEY PROJECT

# Index





# SEMI-INTENSIVE PRODUCTION SYSTEM

## From the GENETIC CENTER to SATELLITE RABBIT FARMS

**1 GENETIC CENTER**

**7 SATELLITE RABBIT FARMS**
(2 MINITUNNELS FOR EACH)

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### DESIGN AND REALIZATION

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### EQUIPMENT (CAGES AND BUILDINGS)

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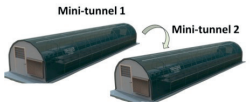


### BASIC PROJECT

1 GENETIC CENTER
7 SATELLITE RABBIT FARMS
+
1 SLAUGHTERHOUSE

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FIX

MOBILE

### ADVANCED PROJECT

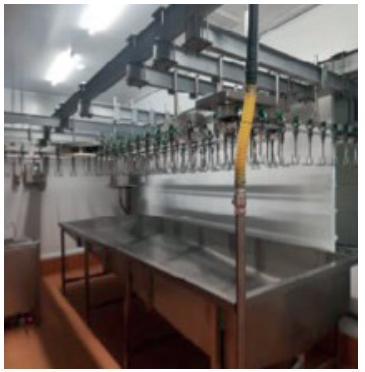
Possibility to extend the project including

- Feed factory — FRAGOLA
- Manure treatment — PRIMERANO
- Agricultural and industrial machinery — CIRO CALABRIA & FIGLI S.R.L. we move your work
- Laboratories and vet-medicines — Sant'Alfonso
- Photovoltaic system — P4 ENERGY

# PRODUCTION PROJECT

## *semi-intensive*

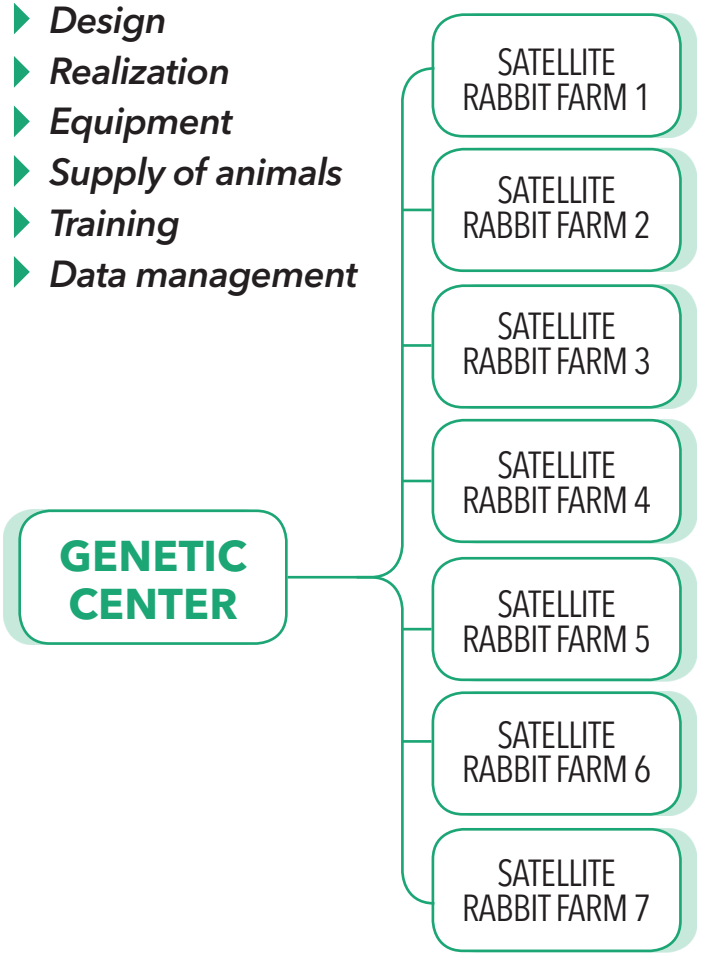
- **1 GENETIC CENTER**
- **1 SLAUGHTERHOUSE**
- **7 RABBIT SATELLITE FARMS**
  *15/20 km distance*
  *from the management center*
- **FINAL PRODUCTION**
  ***from ~530 to ~2010***
  *slaughtered rabbits per week*



***The number of animals has been estimated, but may change due to several factors***

# SEMI-INTENSIVE PRODUCTION PROJECT

- *Design*
- *Realization*
- *Equipment*
- *Supply of animals*
- *Training*
- *Data management*

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*The project, based on **1 GENETIC CENTER, 1 SLAUGHTERHOUSE** and **7 SATELLITE RABBIT FARMS** (with cyclic management within a distance of 15/20 km from the management center), aims to ensure a minimum weekly supply of about 530 slaughtered rabbits, distributed as follows:*

- ***380 slaughtered rabbits** from rearing cycles (minitunnels)*
- ***150 slaughtered rabbits** from fattening rabbits (from the genetic center) and reformed animals (males and females)*

*The project is designed to be scalable. The maximum weekly production potential, keeping the genetic center and slaughterhouse unchanged, can be up to about 2010 rabbits slaughtered per week.*

# DESIGN OF THE GENETIC CENTER

THE AIM

Ensuring constant and high quality production, both in terms of breeding animals and semen for artificial insemination, contributing to the genetic improvement of rabbit species.

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The genetic center is equipped with a 36x13m shed, divided into 11 rooms of 3m width

This structure allows optimal management of the different phases of rearing

The facility is completed by **3 areas** used as offices, storage and laboratory for semen processing

**8 areas** are designated for the production of young rabbit does + **1** which constitutes the **slaughterhouse**

**2 areas** designated for the growth of young rabbit does (with 56-day cycles)

**1 area** is designated for rearing rabbit bucks

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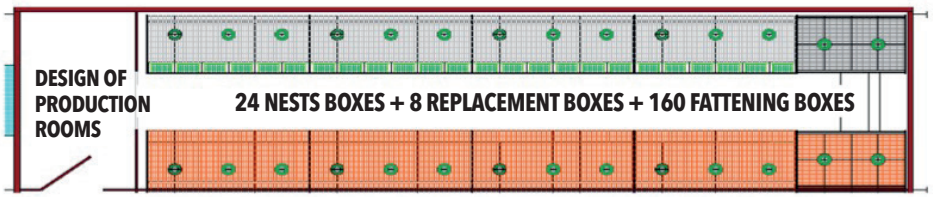
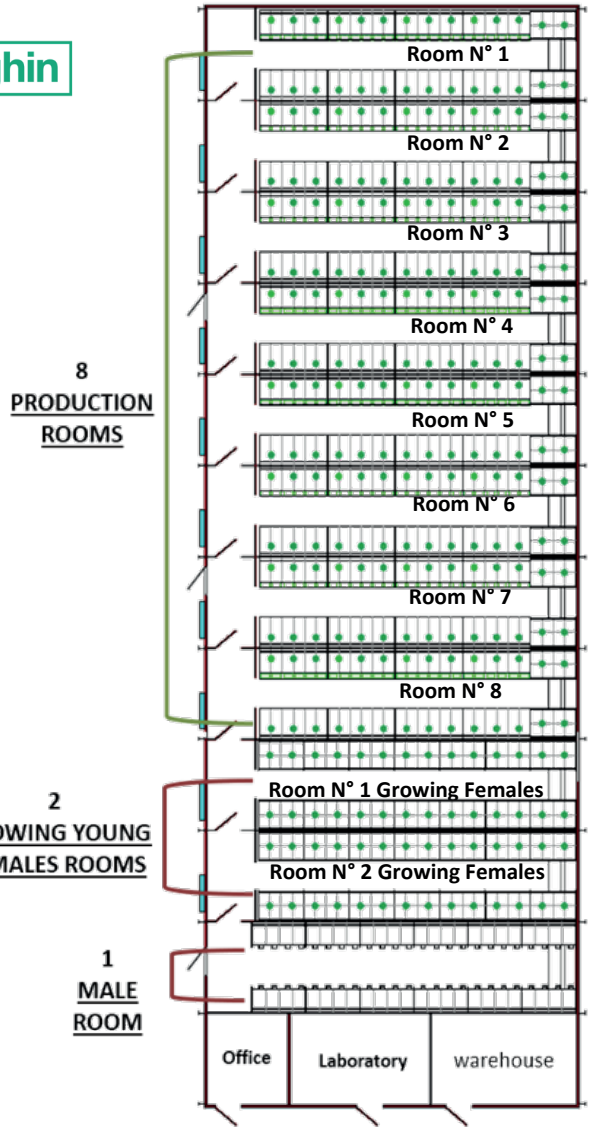
# Equipment




- *Each **PRODUCTION room** has a capacity of 32 breeding females (24 pregnant and 8 young females) with a production capacity of approximately 160 rabbits (including breeding and fattening rabbits) for each production cycle.*

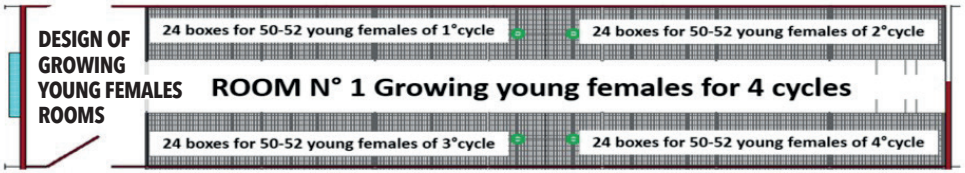
*The system provides for a rotation of the breeding females within the same room between the right and left wall modules with multi-purpose cages suitable for parturition, weaning and in colony fattening phases.*



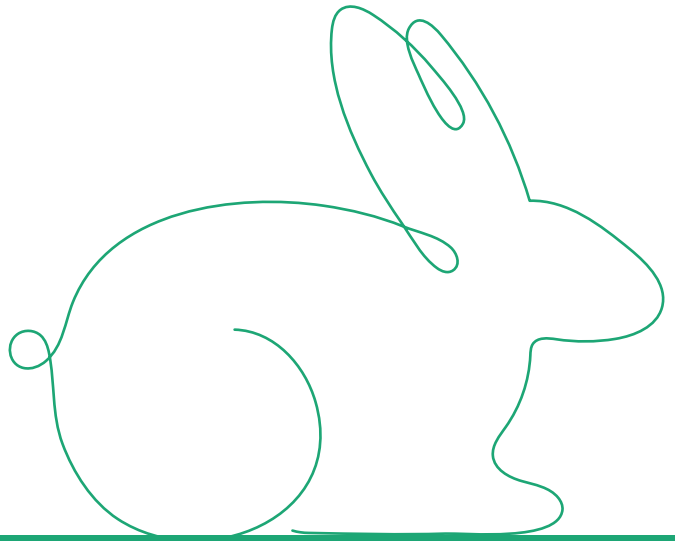

**WEEKLY PRODUCTION CAPACITY**

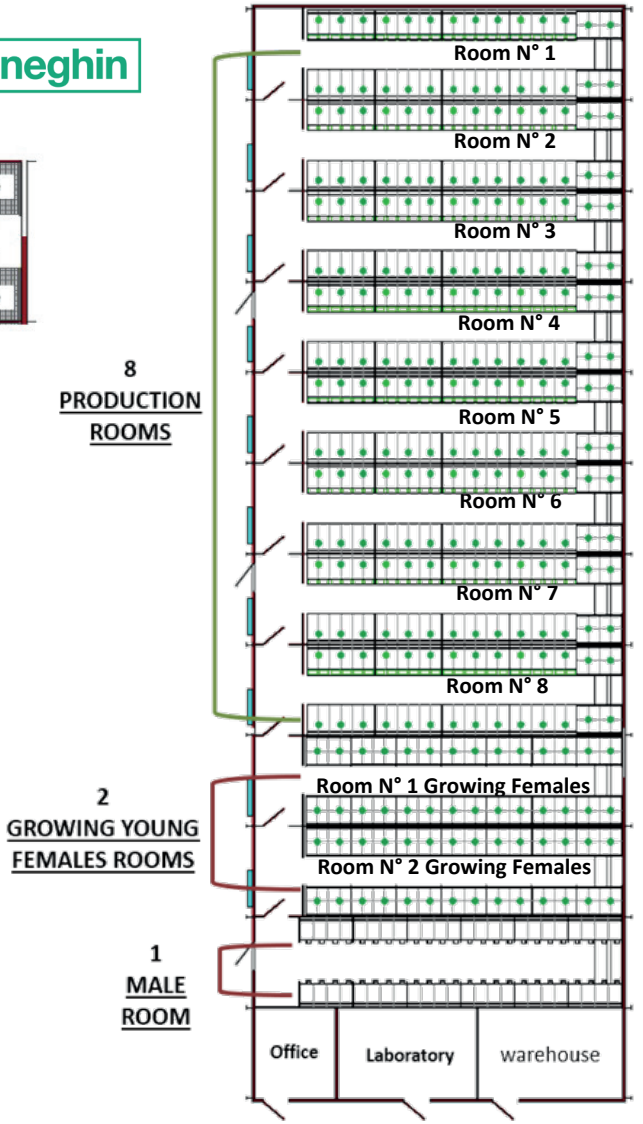
- **~50-52** F1-selected young rabbit does, ready for reproduction within a maximum age of 140 days.
- **~110 rabbits** for slaughter (84 days) (fattening and reformed rabbits)
- **~450 doses of semen** for artificial insemination, taken from breeding males

# Equipment




- *The **MALE room** consists of 2 rows of cages with a total capacity of 48 males with the aim of collectingup to 450 doses of semen for artificial insemination.*





# Slaughterhouse

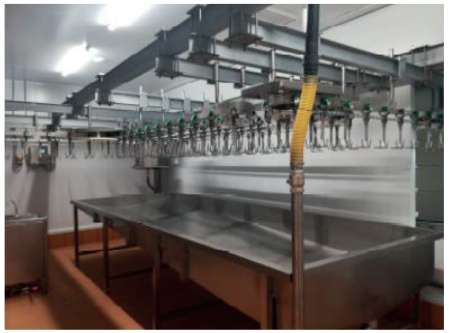
*A rabbit **slaughterhouse** is outer specialised facility where rabbits are slaughtered for meat production. The slaughter process is regulated by specific regulations to guarantee hygiene, food safety and animal welfare.*

- ***Characteristics:***
  - *Estimated water consumption: 2 l/Ca*
  - *Productivity: 100 Ca/h* (*)*

  *(*) It depends on the number of the operators and their capacities*

*Lenght 12.19m*
*Width 2.43m*
*Height 2.89m*

**Bleeding area**



**Rabbit washer and belt conveyor**

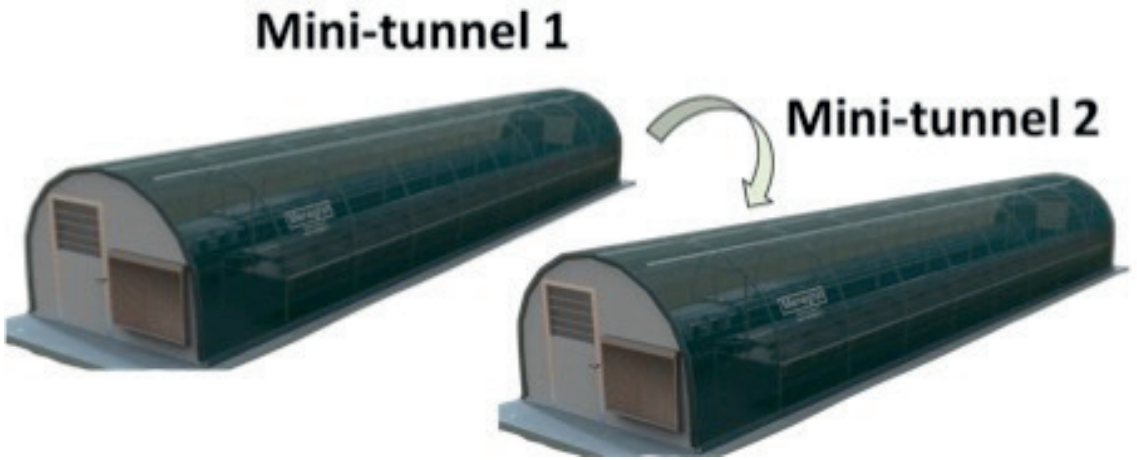
*Zone and equipment for slaughtering and initial processing*
*Zone and equipment for evisceration and packaging*
*Refrigeration zones*
*Zones with additional services*

**Skinning machine and conveyor**

# Design and realization of satellite rabbit farms

*Each SATELLITE RABBIT FARM consists of 2* ***MINITUNNELS*** *relying on* ***DUO-BAND*** *model allowing to produce about* ***380 slaughtered rabbits every 49 days (cycle).***

***DUO-BAND system****, adopted in Europe since the 2000s in intensive rabbit rearing, aims to optimize production through cyclical management and the use of multi-purpose cages and guarantees a high level of hygiene.*




***The number of animals has been estimated, but may change due to several factors***

# Design and realization of satellite rabbit farms

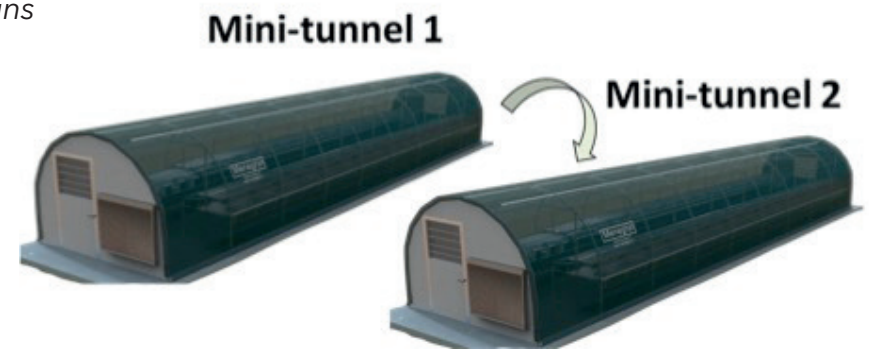
## CARACTERISTICS OF DUO-BAND SYSTEM

- ***COMPONENTS:***
  *It requires almost 2 twin minitunnels, equipped with multi-purpose cages.*

*They allow adaptation to the different phases of rearing:*
- ***FIRST STEP:*** *parturition and weaning ( ~42 days);*
- ***SECOND STEP:*** *fattening until slaughter (~84 days).*

- ***PRODUCTIVE CYCLE:***
  *The cycle begins with the parturition of the rabbit does on a minitunnel, at 42 days of rabbit life, the already fertilized rabbit does are moved to the twin minitunnel while the whole colony remains in the same boxes of the first minitunnel until slaughter age.*

- ***ALL IN-ALL OUT:***
  *At the end of the cycle, the minitunnel will be emptied, cleaned and disinfected, providing a high level of hygiene.*



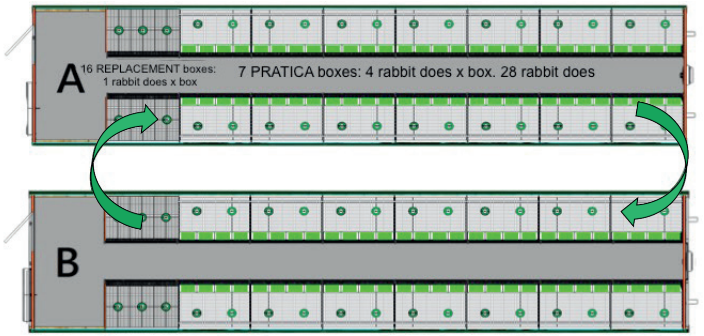
# Design and realization of satellite rabbit farms

## MANAGEMENT OF DUO-BAND SYSTEM

*This diagram describes a cyclic management of activities involving two minitunnels (A and B) with a capacity of 72 rabbit does (56 pregnant and 16 as replacement) and a production capacity of 380 fattening rabbits per cycle. The main activities are the first phase (parturition, insemination, weaning) and the second phase (fattening, slaughtering, cleaning).*

| | Minitunnel A | Minitunnel B | Minitunnel A | Minitunnel B | |
|---|---|---|---|---|---|
| **Activities** | **1° Cycle (days)** | **2° Cycle (days)** | **3° Cycle (days)** | **4° Cycle (days)** | **Appr. Frequency (days)** |
| Parturition | 0 | 49 | 98 | 147 | ~ 30 |
| Insemination | 19 | 68 | 117 | 166 | ~19 after parturiton |
| Moving rabbit does | 42 | 91 | 140 | 189 | ~42 after parturition |
| Fattening | 42-84 | 91-133 | 140-182 | 189-231 | ~84 after parturition |
| Slaughter | 84 | 133 | 182 | 231 | ~84 |
| Final cleaning of the minitunnel | 90 | 139 | 188 | 237 | ~6 |

***DESIGN OF MINITUNNEL***



# PRODUCTION PROJECT

## *semi-intensive*

### THE WEEKLY PRODUCTION CAPACITY IS ON TWO LEVELS:

#### MINIMUM CONFIGURATION

**Initial structure:**
*7 SATELLITE RABBIT FARMS, each consisting of 2 minitunnels. Each week a one of the 7 farms, starts production. The cycle is completed in 7 weeks, restarting from the first rearing group.*

**Weekly production:**
*380 slaughtered rabbits from SATELLITE RABBIT FARM (2 minitunnels), 150 slaughtered rabbits from the GENETIC CENTER (fattening rabbits and reformed subjects).*

**Total:** 530 rabbits slaughtered/week

#### MAXIMUM CONFIGURATION

*The maximum configuration is obtained by gradually increasing the number of farms, always with weekly management, while keeping the GENETIC CENTER and the slaughterhouse unchanged.*

**Final structure:**
*35 SATELLITE RABBIT FARMS, each consisting of 2 minitunnels, with weekly management of 5 SATELLITE RABBIT FARMS/cycle. The cycle is completed in 7 weeks, starting from the first five rabbit farms.*

**Weekly production:**
*1900 rabbits slaughtered by five rabbit farms, 110 rabbits slaughtered by the GENETIC CENTER (fattening rabbits and reformed animals)*

**Total:** 2010 rabbits slaughtered/week

***The number of animals has been estimated, but may change due to several factors***

# Supply of animals for each satellite rabbit farm

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**THE FIRST DELIVERY FROM ITALY**

**72 rabbit females of F1 lineage:**

- **56 within PRATICA boxes**
- **16 within REPLACEMENT boxes**

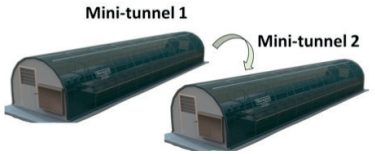
**SUPPLY OF ANIMALS FOR SUBSEQUENT CYCLES**

**10 rabbit females of F1 lineage** deriving from the GENETIC CENTER which is already operating (constituting new rabbit breeders to use as reproducers within minitunnels of satellite rabbit farms)

RABBIT FEMALES WILL BE MATED BY PROCEDURE OF ARTIFICIAL INSEMINATION

FEMALES F1

10 FEMALES F1 from the NEW GENETIC CENTER




***The number of animals has been estimated, but may change due to several factors***

# Supply of animals for the new genetic center

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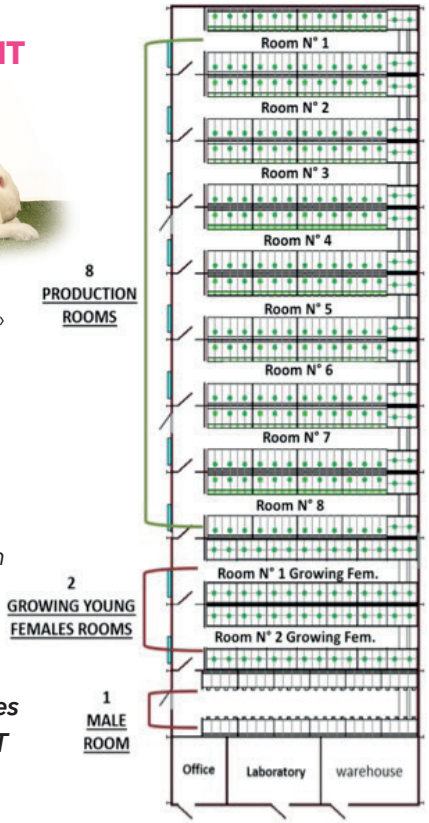
## FEMALES UNIT

RABBIT FEMALES
OF ITALIAN WHITE BREED «IW»
(BIANCA ITALIANA)




***24 rabbit does*** *(age 120-140 days) +* ***8 rabbit females of Italian White breed*** *for each room of the Genetic center achieving the totality of:*

***256 rabbit females of***

- ***192 within PRATICA boxes***
- ***64 within REPLACEMENT boxes***

## MALES UNIT

**24**

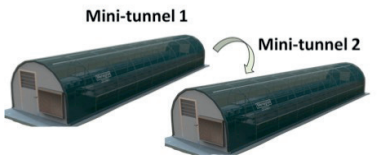
RABBIT MALES
OF ITALIAN WHITE
BREED «IW»
(BIANCA ITALIANA)

**Semen of «Iw» rabbit males** will be used for the insemination of **F1 females of each rabbit satellite farm**

**24**

RABBIT MALES
OF ITALIAN PIED
BREED «IP»
(MACCHIATA ITALIANA)

**Semen of «Ip» rabbit males will be used for the insemination of** «Iw» **rabbit does within the genetic center** arising **F1 subjects** among which 10 females will be new rabbit breeders **of satellite rabbit farms**




*The number of animals has been estimated, but may change due to several factors*

# Training

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LOCAL TRAINING
(IN THE COUNTRY OF INTEREST)

*ANCI organizes specific courses to increase your knoledge about rabbit breeding techniques and genetic improvement.*

***MAIN TOPICS:***

- *Intensive breeding systems*
- *Feeding systems*
- *Costs management*
- *Reproductive cycle of rabbit and cycling system*
- *Evaluation of semen quality and Procedure of artificial insemination*
- *Hygiene and security protocols*
- *Marketing and promotional strategies*

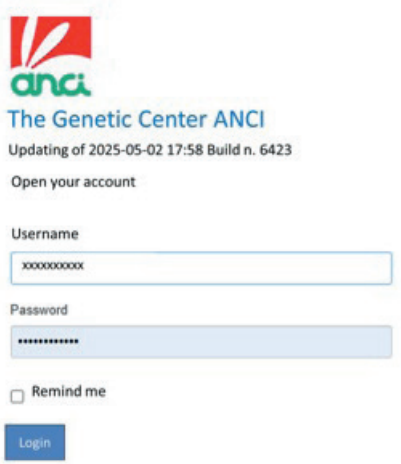
TRAINING IN ITAL (AT THE RABBIT GENETIC CENTER ANCI)

*Novel technicals will be host at our facility to spend a training period or they will follow local training courses hold in your country during which it will be possible to analyze each step of reproductive cycle of rabbit from mating phase to weaning and finally selection procedure.*

# Data management of the genetic center

*During training period, beyond the possibility to work closer our technical operators keeping long-time experience in the activity of genetic improvement, it will be possible exploring the new software for data managemet of genetic center and the elaboration of mating plans.*

*This management software will allow to monitor costantly every event of rabbit reproductive cycle but also to know the productivity of your farm, acting indipendently and checking your center by use of any device such as pc, tablet or smartphone.*




*The new software will be realized specifically for new user who will receive personalized access keys*

*For using of this novel management software, ANCI provides its assistance on site and remotely*

# PRODUCTION PROJECT

*semi-intensive*

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HAND KEY PROJECT

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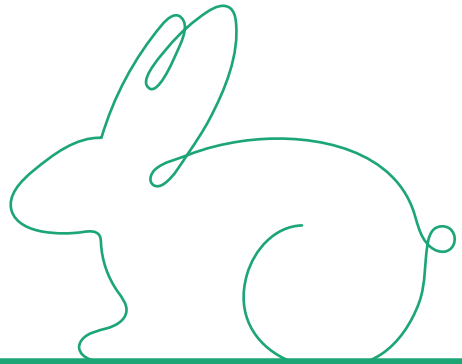
The company provides a “HANDKEY PROJECT” and initial technical support, working with specialized partners to set up the rabbit breeding center and train staff in self-management, including feed formulation with local raw materials».



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