Strain INRA1077 (France)

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SUMMARY – Strain selected for 30 generations for litter size at weaning, and now for litter size at birth and weight at 9 weeks. Used as grand-parental female strain to produce a parental crossbred female (INRA1077 INRA2066 or other commercial strains), which is the most common parental female in France.

Key words: Strain INRA1077, description, performance, genetics.

RESUME – *"La souche INRA1077 (France)". Souche sélectionnée sur 30 générations pour la taille de la portée au sevrage, et à présent pour la taille de la portée à la naissance et le poids à 9 semaines. Utilisée comme souche grand-maternelle pour produire une femelle croisée parentale (INRA1077 INRA2066 ou autres souches commerciales), qui est la lapine parentale la plus courante en France.*

Mots-clés : *Souche INRA1077, description, performances, génétique.*

1. Breed name

INRA1077.

2. General description

2.1. Population data

2.1.1. Population size and census data

(i) Total number of females being used in purebreeding: 650 (nucleus).
(ii) Total number of females being used in crossbreeding: unknown, large.
(iii) Percent of females being used pure: reduced (nucleus).

2.1.2. Herd sizes (Table 1)

Table 1. Herd sizes

	Governmental farms	Commercial farms
Mean		
Adult animals	150	200

2.1.3. Origin of the breed: from New Zealand White and Bouscat White breeds

2.1.4. Situation with regard to danger of extinction: no danger, stable

2.1.5. Conservation programme

Conservation for frozen embryos and semen.

2.2. Use of the breed in a descending order of product importance

Meat.

2.3. Colour

Albinos.

2.4. General type

2.4.1. Body parts

Middle size breed. Broad and cylindrical body. Well developed trunk. Imperceptible neck. Low shoulders and raised rump. Dewlap possible.

2.4.2. Head: diamond-shaped

2.4.3. Eyes: red (albinos)

2.4.4. Ears: erect

2.4.5. Feet and legs: medium

2.4.6. Tail: straight or curly

2.5. Basic temperament (for males and females): docile

2.6. Nest quality: pooled

3. Pattern

3.1. Climate

3.1.1. Favourable climate: used in Europe, but also in French Caribbean, Benin (Africa)

3.2. Main features of farming

3.2.1. Socio-management system: intensive

3.2.2. Mating method: artificial insemination, but also natural mating

3.2.3. Nutrition

(i) *Concentrates:* pelleted.
(ii) *Water:* freely available.

3.2.4. Housing

(i) *Cages:* wired cages, indoor rabbitry.
(ii) *Photoperiod:* light-dark constant photoperiod (8/16).

4. Performance

4.1. Reproduction (Tables 2, 3 and 4)

Table 2. Information of sexual maturity

Trait	Mean
Age of buck at first service (months)	4.4
Age of doe at first mating (months)	3.8
Age of doe at first kindling (months)	4.5

Table 3. Information of semen

Trait	Mean	Range
Ejaculate volume (ml)	0.71	SD = 0.21
Sperm concentration per ml (10^6)	574	279
pH	6.9	0.21
Live sperm (%)	83.4	

Table 4. Fertility and fecundity traits

Trait	Mean
Conception rate(%)	82
Litter size at birth	8.5/7.7
Litter size at weaning	6.4
Litter weight at weaning	4550

4.2. Prenatal mortality per litter

The percentage of stillbirths is around 8.8.

4.3. Post-weaning body weight, gain and food utilisation

The weight at weaning is around 710 g.

4.4. Carcass traits (Table 5)

Table 5. Carcass traits

Trait	Mean	Range
Slaughter age (weeks)	10	9-10
Slaughter weight (g)	2400	
Hot carcass weight (g)	1400	
Dressing percentage	58	

5. Genetic improvement (see Rochambeau, 1998)

5.1. Genetic parameters

(i) h_ born alive: 0.07.
(ii) h_ weaned: 0.04.
(iii) h_ litter weight at weaning: 0.07.

5.2. Selection for economic traits

Response to selection (BLUP estimation):

(i) +0.11 born/litter/generation.
(ii) +0.08 weaned/litter/generation.
(iii) +47 g litter weight at weaning/generation.
(iv) –3.4 g individual weight at weaning/generation.

5.3. Crossing of breed with other breeds (Table 6)

Table 6. Crossing with INRA 2066 strain

Trait	Born alive/litter	Weaned/litter	Litter weight at weaning	Individual weight at weaning
Direct heterosis (%)	–1	0	2	2
Maternal heterosis (%)	19	16	14	–5

References

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