# Strain INRA2066 (France)

**Bolet G., Saleil G.**

*in*

**Khalil M.H. (ed.), Baselga M. (ed.).**
**Rabbit genetic resources in Mediterranean countries**

**Zaragoza : CIHEAM**
**Options Méditerranéennes : Série B. Etudes et Recherches; n. 38**

**2002**
pages 121-124

# Strain INRA2066

Male INRA2066

Female INRA2066

# Strain INRA2066 (France)

**G. Bolet and G. Saleil**
INRA-SAGA, B.P. 27, F-31326 Castanet Tolosan Cedex, France

**SUMMARY –** Strain selected for 30 generations for litter size at birth. Used as grand-parental male strain to produce a parental crossbred female (INRA1077 INRA2066), which is the most common parental female in France.

**Key words:** Strain INRA2066, description, performance, genetics.

***RESUME –*** *"La souche INRA2066 (France)". Souche sélectionnée sur 30 générations pour la taille de la portée à la naissance. Utilisée comme souche grand-paternelle pour produire une femelle croisée parentale (INRA1077 INRA2066), qui est la lapine parentale la plus courante en France.*

***Mots-clés :*** *Souche INRA2066, description, performances, génétique.*

## 1. Breed name

INRA2066.

## 2. General description

### 2.1. Population data

*2.1.1. Population size and census data*

(i) Total number of females being used in purebreeding: 300 (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<br>Adult animals | 100 | 100 |

*2.1.3. Origin of the breed:* from Californian and Giant Himalayan 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**

Himalayan (black).

**2.4. General type**

*2.4.1. Body parts*

Middle size breed. Stocky 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): relatively lively

**2.6. Nest quality:** pooled

## 3. Pattern

**3.1. Main features of farming**

*3.1.1. 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)

**4.2. Prenatal mortality per litter**

The percentage of stillbirths is around 10.

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) | 0.59 | SD = 0.19 |
| Sperm concentration per ml ( $10^6$) | 394 | 188 |
| pH | 7.04 | 0.20 |
| Live sperm (%) | 73% | |

Table 4. Fertility and fecundity traits

| Trait | Mean |
|---|---|
| Conception rate (%) | 70 |
| Litter size at birth | 9.1/8.2 |
| Litter size at weaning | 7.6 |

### 4.3. Carcass traits (Table 5)

Table 5. Carcass traits and meat composition

| Trait | Mean | Range |
|---|---|---|
| Slaughter age (weeks) | 10 | 9-10 |
| Slaughter weight (g) | 2500 | |
| Hot carcass weight (g) | 1300 | |
| Dressing percentage | 58 | |

## 5. Genetic improvement (see Rochambeau, 1998)

### 5.1. Genetic parameters

(i) h_ born alive: 0.06.
(ii) h_ weaned: 0.04.
(iii) h_ litter weight at weaning: 0.08.

### 5.2. Selection for economic traits

Response to selection (BLUP estimation):

(i) +0.12 born/litter/generation.
(ii) +0.07 weaned/litter/generation.
(iii) +34 g litter weight at weaning/generation.
(iv) –4.4 g individual weight at weaning/generation.

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

Table 6. Crossing with INRA 1077 strain

| | 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

Matheron, G. and Rouvier, R. (1977). Optimisation du progrès génétique sur la prolificité chez le lapin. *Ann. Génét. Sel. Anim.*, 9: 393-406.

Rochambeau, H., de (1998). La femelle parentale issue des souches expérimentales de l'INRA: Evolutions génétiques et perspectives. In: *7èmes Journées de la Recherche Cunicole*, Lyon (France), 13-14 May 1998, pp. 3-14.