

**Comparative study on productive performance of domestic rabbit hybrids  
 in different feeding systems**

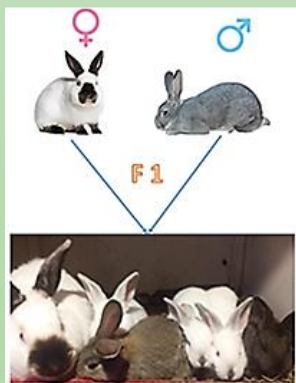
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**INTRODUCTION**

Most domestic rabbits are given a commercial feed that provides essential nutrients. However, some rabbit farmers prefer to formulate, or home make, their own rabbit ration precisely to reduce the cost of feed. On the other hand, commercial feed provides the required nutrients into a small volume, but is the opposite of the rabbit's natural diet.

Based on this consideration we tried to establish the existence of differences, but also the size of the differences in terms of bioproductive indices during the growing-fattening period and the meat quality of the F1 domestic rabbit hybrids obtained from ♀ Californian x ♂ German Giant that were fed with two different diets: commercial pellets 80% replaced with an own concentrates mixture and 2. commercial pelleted feed exclusively (Figure 2).



**Figure 1. Breeding scheme for obtaining F1 ♀CAL x ♂UG**

**MATERIALS AND METHODS**

The biological material in the experiment consisted of domestic rabbits from the Californian (CAL) breed as maternal form and German Giant (UGG) breed, as the paternal form that were used to obtain the F1 hybrid generation (Figure 1).



**Figure 2. Diets .concentrates mixture-pellets (left); commercial pelleted feed (right)**

**RESULTS**

**Table 1. Statistical indices regarding the variable body weight of the rabbits in the 2 groups during growing-fattening period (g)**

	Day 1	Weaning (60 days)	90 days	120 days
<b>G1 (♀CAL x ♂UG) - concentrates mixture + pellets</b>				
S	428	10780 <sup>a</sup>	16960 <sup>a</sup>	21500 <sup>a</sup>
X	61.16	1540	2423	3071
SD	1.069	60.82	70.40	138.73
<b>G2 (♀CAL x ♂UG) - pellets</b>				
S	440	11180 <sup>a</sup>	17550 <sup>a</sup>	22130 <sup>a</sup>
X	63	1598	2507	3161
SD	1.34	69.21	88.26	117.39
p	<0.05	p>0.05	p>0.05	p>0.05

**Table 2. Statistical indices regarding the variable average daily gain of the rabbits in the 2 groups during parturition-slaughter period (g)**

	1-60 days	60-90 days	90-120 days
<b>G1 (♀CAL x ♂UG) - concentrates mixture + pellets</b>			
S	177 <sup>a</sup>	206.01 <sup>a</sup>	151.32 <sup>a</sup>
X	25.29	29.43	21.61
SD	0.43	0.53	2.94
<b>G2 (♀CAL x ♂UG) - pellets</b>			
S	183.66 <sup>a</sup>	212.34 <sup>a</sup>	152.67 <sup>a</sup>
X	26.23	30.33	21.81
SD	0.86	0.90	1.69
p	p<0.05	p>0.05	p>0.05



**Figure 3. Carcasses and viscera of 2 individuals belonging to the two groups**

**Table 3. Slaughter performance and organs percentage of F1 individuals**

Variable	G1 ♀CAL x ♂UH		G2 ♀CAL x ♂UG		p
	X	DS	X	DS	
Body weight (g)	3072 <sup>a</sup>	1.14	3161 <sup>a</sup>	1.88	>0.05
carcass weight (g)	1717 <sup>a</sup>	4.1	1758 <sup>a</sup>	1.21	
Digestive tract %	560 <sup>a</sup>	2.07	590 <sup>a</sup>	2.4	
Liver %	108 <sup>a</sup>	0.9	115 <sup>a</sup>	1.02	
Lung %	37 <sup>a</sup>	5.5	33 <sup>a</sup>	4.92	
Heart %	8 <sup>a</sup>	0.87	8 <sup>a</sup>	1.94	
Kidney %	21 <sup>a</sup>	1.92	20 <sup>a</sup>	2.57	
Spleen %	3 <sup>a</sup>	2.01	3 <sup>a</sup>	1.99	
slaughter yield %	51.25 <sup>a</sup>	1.10	51.71 <sup>a</sup>	176	

**Table 4. Chemical composition of meat samples of F1 individuals**

Variable	G1 ♀CAL x ♂UH	G2 ♀CAL x ♂UG	p
<b>Back</b>			
DM %	30.04 <sup>a</sup>	30.09 <sup>a</sup>	>0.05
CP %	20.63 <sup>a</sup>	20.42 <sup>a</sup>	
CG %	6.80 <sup>a</sup>	7.31 <sup>a</sup>	
Ash %	1.37 <sup>a</sup>	1.08 <sup>a</sup>	
<b>Hip</b>			
DM %	27.20 <sup>a</sup>	27.49 <sup>a</sup>	>0.05
CP %	18.50 <sup>a</sup>	18.67 <sup>a</sup>	
CG %	5.98 <sup>a</sup>	7.11 <sup>a</sup>	
Ash %	1.19 <sup>a</sup>	1.07 <sup>a</sup>	
<b>Tigh</b>			
DM %	27.00 <sup>a</sup>	29.20 <sup>a</sup>	>0.05
CP %	19.24 <sup>a</sup>	19.69 <sup>a</sup>	
CG %	6.09 <sup>a</sup>	5.73 <sup>a</sup>	
Ash %	1.17 <sup>a</sup>	1.26 <sup>a</sup>	

**CONCLUSIONS**

Our findings were:

- a better growth rate recorded by F1 ♀ Californian x ♂ German Giant individuals belonging to group 2 during the period 1-60 days, which then decreases until 120 days of ages;
- significant differences regarding the average daily gain of the rabbits in the two groups during 1-60 days of life, in favor of those fed with pellets;
- insignificant differences between the individuals of the two groups regarding the chemical meat composition and the commercial characteristics of the carcass;

- similar productive performance (p>0.05) between the experimental groups when replacing part of the pellets with a concentrated mixture compared to feeding exclusively with pellets;
- higher but insignificant proportion of abdominal fat deposits in individuals fed exclusively with pelleted feed.