INFLUENCE OF MALE ON REPRODUCTIVE PERFORMANCE OF ALGERIAN LOCAL POPULATION RABBIT

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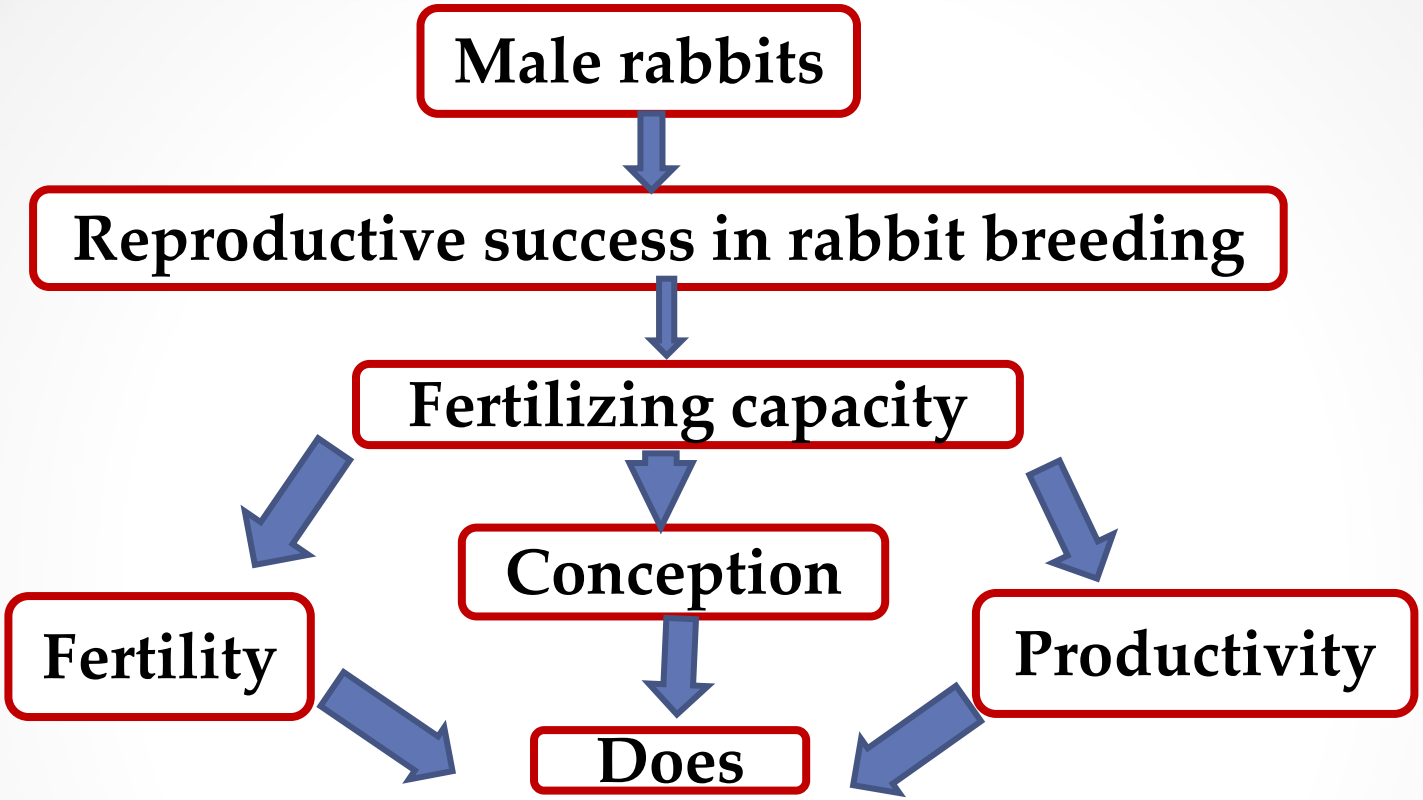
MESSAGE


Male rabbits
Reproductive success in rabbit breeding
Fertilizing capacity
Conception
Fertility
Productivity
Does

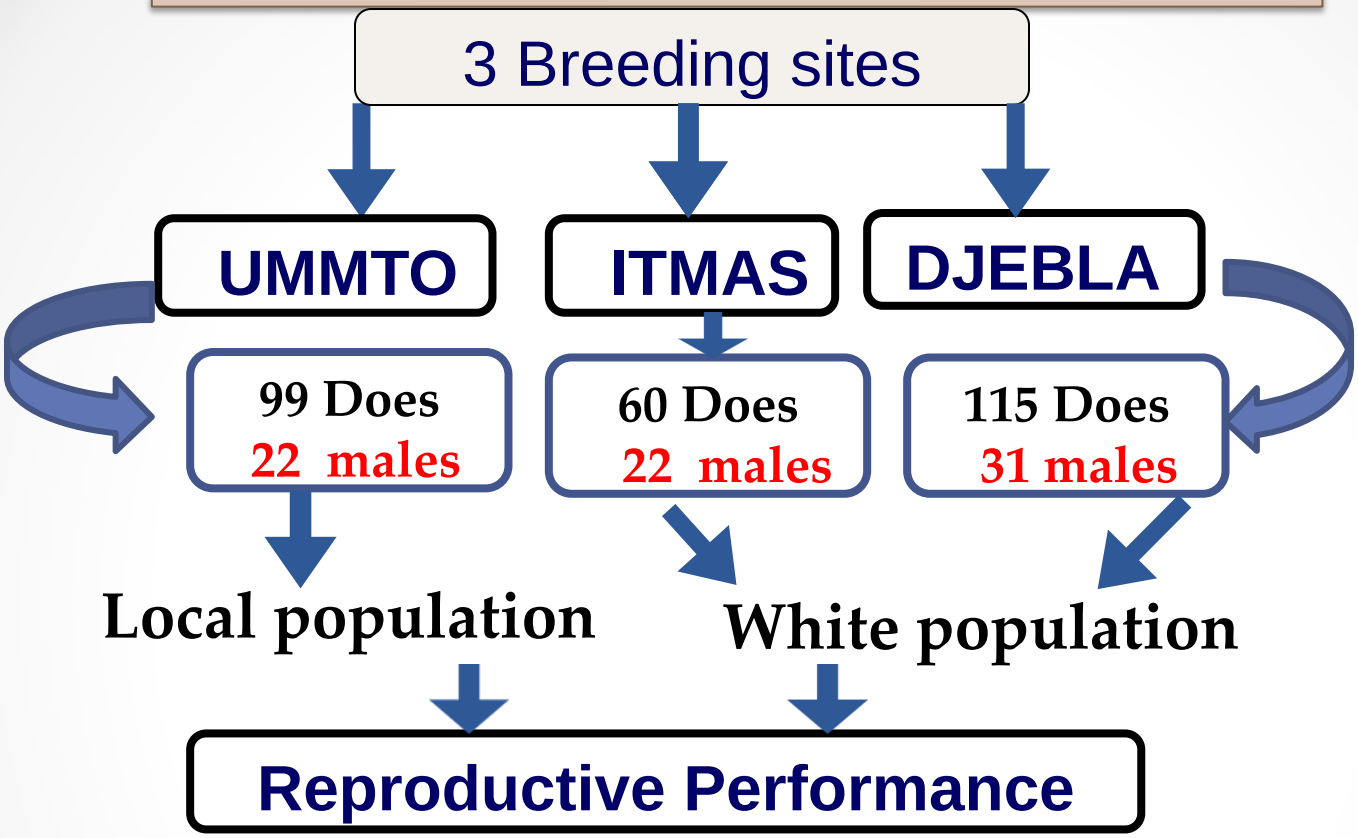
AIM OF THE STUDY

Male's effect on reproductive performance

Male's age at mating

Male'sweight at mating

MATERIALS and METHODS



Statistical analysis

- Analysis of variance using SAS software the fixed effects of :

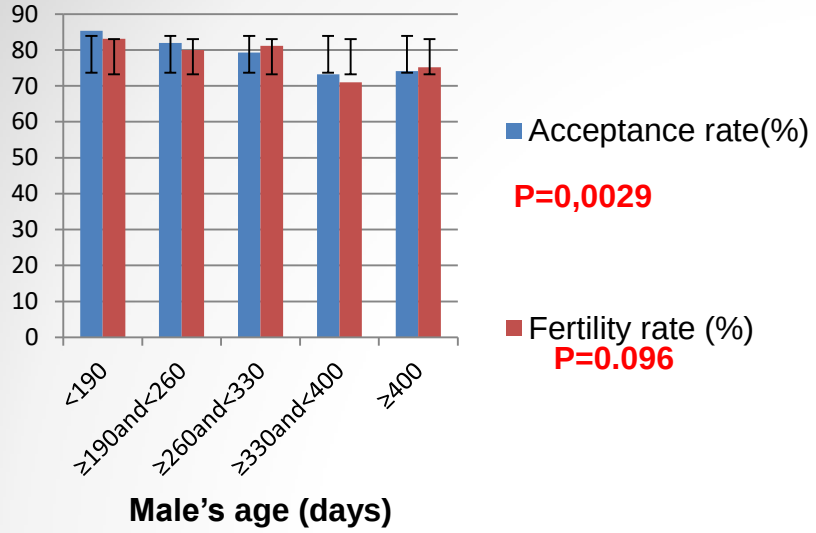
✓ **the age of the buck at mating time (5 levels)**:
< 190 days, ≥190 and <260 days, ≥ 260 and < 330 days, ≥ 330 and < 400 days and ≥400 days.

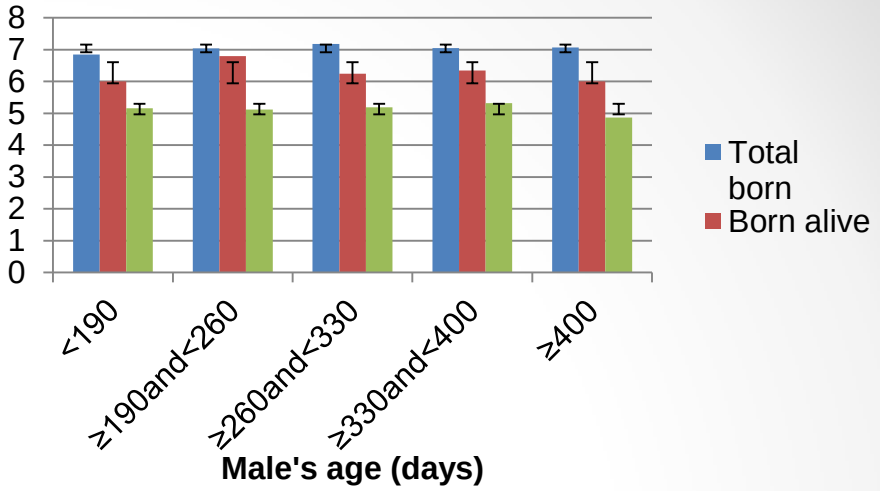
✓ **the average buck's weight at mating (3 levels):**
light, medium, heavy

Males classified intra-site: Medium = mean ± ½ standard deviation

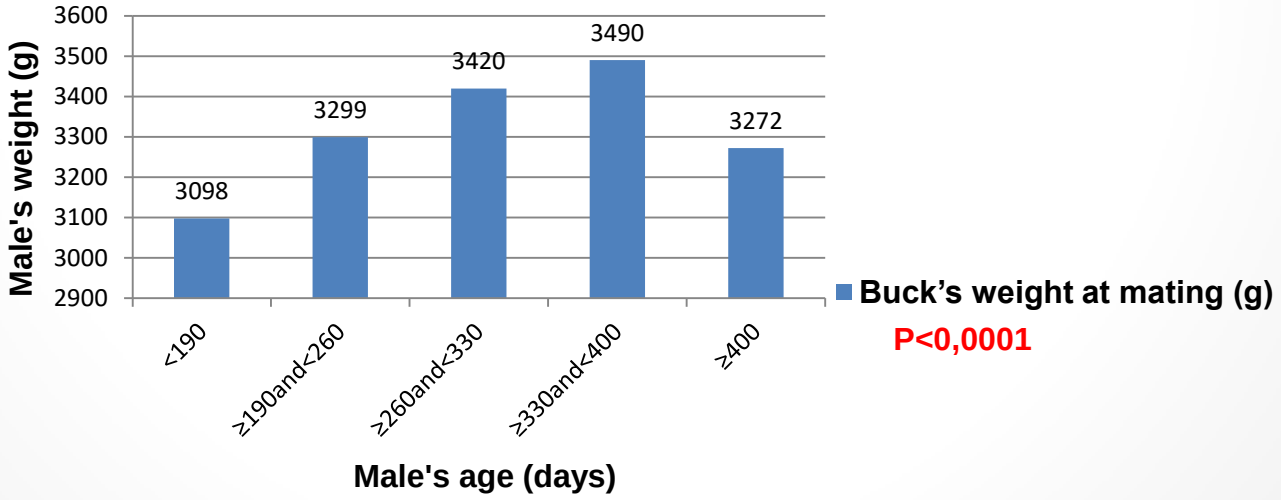
- ✓ **UMMTO**: light <2862 g and heavy> 3192 g
- ✓ **ITMAS:** light <3041 g and heavy> 3389 g
- ✓ **DJEBLA** : light <3522 g and heavy> 3856 g

Results





Reproductive performance according to male's age at mating



Male's weight at mating according to its' age

Table1: Litter weight at birth and at weaning according to male's age at mating

Male's age (days)	<190	≥190and<260	≥260and<330	≥330and<400	≥400	P
Litter weight at birth g)	327±130	341±131	348±123	355±123	327±146	0.58
Mean kits weight at birth (g)	55±18	58±18	58±29	57±13	55±13	0.76
Litter weight at weaning(g)	2426±823	2517±895	2493±850	2482±890	2466±837	0.50
Mean kits weight at weaning (g)	479±121	502±141	507±144	483±124	491±125	0.32

Table2: Reproductive performance according to male's weight at mating

Male's weight	Light	Medium	Heavy	P
Reproductive performance:				
Acceptance rate (%)	83.7±37	77.3±42	75.7±43	0.21
Fertility rate (%)	79.9±40	79.6±40	74.8±43	0.18
Total born	7.09±2.54	7.03±2.51	7.07±2.52	0.97
Born alive	6.24±2.72	6.11±2.72	6.15±2.68	0.96
Weaned	5.26±2.34	5.11±2.21	5.14±2.29	0.84
Litter weight at birth (g)	332±126	352±128	337±132	0.71
Mean kits weight at birth(g)	54±28	60±19	56±13	0.43
Litter weight at weaning(g)	2344±778	2498±904	2659±867	0.12
Mean kits weight at weaning (g)	460±140	503±129	529±132	0.08
Buck's weight at mating (g)	2992 ± 322^{c}	3429 ± 378^{b}	3596 ± 377^{a}	<0.0001

^{a,b,c} Means with different letters are significantly different $P<0.05$

Conclusions

- Impact of male's age ⟹ Reproductive performance **(acceptance rate)**

- Remove of old males (older than one year)

- More knowledge of the optimum conditions for breeding of males to allow quicker elimination of the unproductive ones
- Study of sperm production to eliminate unproductive males