

ABSTRACT

STUDIES ON PRODUCTIVE AND PHYSIOLOGICAL CHARACTERISTICS IN RABBITS UNDER DIFFERENT MANAGERIAL CONDITIONS

The present study was conducted in the Faculty of Agriculture, Zagazig University. The experimental work was carried out in an Industrial Rabbitry, near Zagazig city, Egypt, during the period from November, 2000 till October, 2001.

The present study was aimed to:

1. Evaluation of physiological, productive and reproductive performance in both sexes of different exotic breeds of rabbits to determine the best breed adapted with the Egyptian environmental conditions.
2. Comparison among different managerial treatments to determine the best system can be applied to give the best productive and reproductive performance in Rabbitries.
3. Application of recent techniques in artificial insemination and semen evaluation to obtain the best results.
4. Improvement of productive and reproductive capabilities of heat stressed-low fertile rabbit bucks and does by using some safety treatments.

Results obtained could be summarized as follow:

1. The best productivity and reproductivity were arranged descendingly as obtained from Rex; Flander; Californian and New-Zealand White rabbits, respectively.

2. Using twice coitus with an hour apart and remating the rabbit does at 14 days or more after parturation improved significantly the reproductive capability of these rabbits.
3. Weaning the young rabbits at 35 days or more improved significantly their productive performance.
4. The response of rabbit spermatozoa to hypo-osmotic swelling test (HOS-test) was the best guide on reproductive capability of these animals.
5. Rabbit productivity and reproductively are deleteriously affected by increasing ambient temperature.
6. Injection of heat stressed-low fertile rabbit bucks intramuscularly with $\text{PGF}_{2\alpha}$ and Gn-RH improved significantly their libido and semen quality.
7. Insemination of low fertile rabbit does artificially with semen followed by rabbit gel improved significantly their fertility traits.
8. Injection of heat stressed-low fertile rabbit does intramuscularly with PMSG and separation their kits 72 and 24 hours before artificial insemination, respectively, increased significantly their reproductive efficiency.

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