

APPROVAL SHEET

**SOME PHYSIOLOGICAL ASPECTS OF
GROWING FEMALE NEW ZEALAND WHITE
RABBITS**

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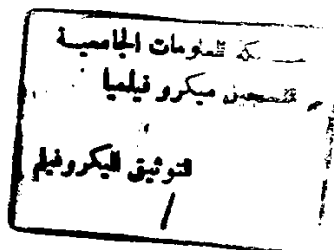
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ABSTRACT

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This study was conducted in animal house and laboratory of the Department of Animal Production, Faculty of Agriculture, Ain Shams University. This trial aimed to study the effect of administration of synthetic gonadotropin - releasing hormone (GnRH, Receptal) and growth promoter (Avotan) alone or together on the reproductive and productive performance of the growing female New Zealand White rabbits.

This trial included 54 growing female New Zealand White rabbits aged 60 days old. Two animals were sacrificed for anatomical and histological studies and the residual animals were randomly divided into four experimental groups; thirteen per each.

The first group was injected with 0.1 ml Receptal / kg body weight, three times weekly for four weeks. The second group was injected with 0.1 ml Receptal / kg body weight, three times weekly for four weeks and Avotan was added to the drinking water 0.06 gm / liter. The third group, Avotan was added to the drinking water 0.06 gm / liter. The fourth group was served as control group.

Daily gain from 60 to 116 days, age at first mating, age at first kindling, doe weight during first and second pregnancy, haemoglobin concentration, thickness of right and left ovaries, diameter of right oviduct, length of vagina, primary follicles and antral follicles percentage were significantly influenced by treatment. While body weight from 123 to 137 days, from 144 to 158 days, gestation length, RBC's, WBC's, lymphocytes (%), monocytes (%), neutrophils (%), eosinophils (%), basophils, oestradiol 17β concentration, progesterone concentration at first and second parities, relative weight, length, width

and thickness of the two ovaries, relative weight, length and diameter of oviducts, relative weight, length and diameter of uterine horns, relative weight, length and diameter of vagina, oögonia (%), primary follicles (%), secondary follicles (%) and number of corpora lutea were not significantly influenced by treatments.

There were significant differences among the four experimental groups in litter size at birth, 1st week, 2nd week, 3rd week and weaning, litter weight at birth, 1st week, 2nd week, 3rd week and weaning, and litter weight from weaning to marketing weight (1.750). However, the differences were not significant in litter mortality rate at birth, 1st week, 2nd week, 3rd week, weaning, from birth to weaning and from weaning to marketing weight (1.750 kg) among the four experimental groups.

Keywords : Rabbit , GnRH , growth promoter , reproductive performance .

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