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ABSTRACT

NOHA FATHY AHMED SALEH: STUDIES ON LEPTEN HORMONE IN REALATIONSHIPTO RABBIT REPRODUCTION. Unpublished Ph. D. Thesis, Poultry Production Department, Faculty of Agriculture, Ain Shams University, 2017.

A total number of 360 sexual mature low-fertile BB and NZW rabbits were used to study the relationship between Lipten hormone concentration and rabbit reproduction. The experimental work included 4 experiments. 1st experiment measured Leptin hormone concentration in blood, milk and semen of low and normal fertile rabbits. 2nd experiment evaluated effects of *Mesolipo-trene* or Green tea on low-fertile rabbit F. 3rd experiment evaluated Leptin hormone level in blood; milk and semen of low fertile rabbits as affected by *Mesolipo-trene* or Green tea. 4th studied fertility traits of does as affected by *Mesolipo-trene* or Green tea.

Results indicated that, leptin hormone in blood, semen and milk of ordinary fertile rabbits were significantly ($P \leq 0.5$ or 0.1) higher than those recorded in low fertile ones. BB recorded leptin hormone insignificantly higher than those obtained by NZW rabbits. Injecting *Mesolipo-trene* or adding Green tea aqua's extract in drinking water improved significantly ($P \leq 0.5$ or 0.1) fertilizing ability of BB and NZW rabbit bucks. Leptin hormone concentration in blood; semen and milk of low fertile BB and NZW rabbits increased significantly ($P \leq 0.5$ or 0.1) by injecting *Mesolipo-trene* or adding Green tea aqua's extract in drinking water.

Injecting *Mesolipo-trene* or adding aqua's extract of Green tea in drinking water significantly ($P \leq 0.5$ or 0.1) improved fertility traits, milk yield and composition and pre-weaning mortality rates of low fertile BB and NZW rabbit does, inseminated artificially or naturally mated.

All parameters studied in the present work related fertilizing ability of bucks and fertility traits of does of BB rabbits were insignificantly superior to those of NZW rabbits. The improvement obtained in reproductive capabilities of BB and NZW rabbits were

arranged insignificantly in descending order due to *Mesolipo-trene* injection; Green tea aqua's extract in drinking water then control group, respectively.

It could be concluded that, There was strongly correlation between Leptin hormone and rabbit reproductive. BB rabbits were more adapted with Egyptian environmental condition than NZW ones. Injecting *Mesolipo-treneor* adding Green tea aqua's extract in drinking water improved rabbit reproductively.