

The objective of this study was to determine the impact of ginger and/or thyme aqueous extracts administration on the growth rate, caecum activity, reproductive performance and semen quality of rabbits. A total of 24 V-line male rabbits at the age of 12 weeks were divided randomly into four equal groups (6/each) until 24 weeks of age. Treatments were as follows: drinking fresh water and served as control (G1); drinking water supplemented with 100 mg/kg b. wt. of ginger aqueous extract (G2); drinking water supplemented with 50 mg/kg b. wt. of thyme aqueous extract (G3); drinking water supplemented with 100 mg/kg b. wt. of ginger aqueous extract plus 50 mg/kg b. wt. of thyme aqueous extract (G4). Administration of aqueous thyme extract with 50 mg/kg b. wt. improved ($p < 0.001$) feed intake and growth performance compared to control. The highest average daily gain ($p < 0.001$) was found for G3 rabbits followed by G4, G2 and G1 respectively. While the most efficient feed conversion ratio was found in G4. Group 3 and group 4 had significant ($p < 0.05$) positive effect on caecum pH, ammonia and TVFAs concentration. Data indicated that treated groups had hastened the age with heavier body weight, larger testicular size and higher testosterone level. Also, most semen characteristics (volume, progressive motility, sperm concentration and normal spermatozoa) were higher in treated groups compared with the control group. Furthermore, gathering of the spermatozoa in the lumen of the seminiferous tubules, expanded epithelial cells stature of the epididymis with stuffed lumens with sperms in treated groups. In conclusion, aqueous extracts of ginger and/or thyme can be used as a growth promoter for improving reproductive performance of V-line male rabbits.

KEY WORDS

ginger, rabbit, reproductive performance, thyme