Ovarian, endocrinological and metabolic changes in ewes supplemented with short term-metabolic energy during the estrous cycle

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Abstract:

Follicular turnover and estradiol 17-β (E2) concentration during the estrus cycle in the subtropics was studied in 13 ewes (7 ewes subjected to high energy, HEG and 6 as normal energy group, NEG). After ovulation (day 0), a high-energy diet (10.87MJ ME/kg diet; 130 % of maintenance) was fed to HEG from day 1 to day 4 after ovulation and from day 8 to Day 11 of the cycle (4 days each). The high-energy diet consisted of 850 g concentrate mixture and 150 g alfalfa hay, plus ad libitum access to wheat straw. The NEG was offered as maintenance diet throughout the experiment. Follicular development was ultrasonographically observed every other day while blood samples were collected daily throughout the experiment for the analysis of albumin, globulin, glucose, total cholesterol, urea, triglycerides, total proteins, E2 and progesterone (P4). Mean plasma concentrations of glucose were significantly (P

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