The objective of this study was to determine the effect of dietary urea levels on follicular fluid concentration of hormones and metabolites and oocyte quality. A trial was conducted with 9 nonpregnant and nonlactating Saanen goats, which had been distributed in a randomized design and were fed with diets with 0 (AMG), 0.40, 0.57, 0.74, and 1.05 g of cloprostenol (Ciosin® Coopers) 48 h before the removal of the sponge. The sponge was removed immediately before the follicular aspiration. The follicular development was stimulated with 70 mg of NIH-FSH-P1 (Folltropin V®) 48 h before the removal of the sponge. The sponge was removed immediately before the follicular aspiration. The follicular development was stimulated with 70 mg of NIH-FSH-P1 (Folltropin V® Vetpharm) i.m., and 300 IU of eCG i.m., (Novormon® Sintex) given 36 h before the follicular aspiration. Fluid from the 2 largest follicles of each ovary were analyzed to determine the follicular fluid estradiol concentration was lower in goats fed with urea (4.02 ± 0.50, BmG 1.40 ± 0.54; 3.50 ± 0.58; 3.37 ± 0.52 ng mL⁻¹; P < 0.05), progesterone concentration did not differ between treatments (2.48 ± 0.47; 4.97 ± 0.18 ng mL⁻¹; P > 0.05). Testosterone concentration was lower in goats fed with urea (4.02 ± 0.47; 4.97 ± 0.18 ng mL⁻¹; P < 0.05). The glucose (91.44 ± 8.47 ± 5.58 mg dL⁻¹) and urea concentration (23.04 ± 1.25; 18.00 ± 2.35) were greater in the animals treated with 2.4% compared with 0% of urea (P < 0.05), respectively. The number of oocytes in the different categories was not affected by treatment (P > 0.05): AMG 1.20 ± 1.09 v. 0.50 ± 0.57, BmG 4.20 ± 2.16 v. 3.50 ± 3.10, BMG 0.40 ± 0.54 v. 0.25 ± 0.50, BmG 1.40 ± 0.54 v. 1.75 ± 1.25, DO 10.20 ± 3.76 v. 11.50 ± 5.44, in the 0 and 2.4% of urea groups respectively. Only the number of PD (1.60 ± 0.54 v. 3.50 ± 1.91) recovered from animals treated with 2.4% was greater than in controls (P < 0.05). The hormone and metabolites concentration in follicular fluid as well as the oocyte quality was affected by the urea concentration of the diet.

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171 ADMINISTRATION OF GnRH ON DAY 6 ALTERS THE NUMBER OF FOLLICULAR WAVES FROM 2 TO 3 DURING THE ESTROUS CYCLE OF HOLSTEIN COWS

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It is suggested that pregnancy rate is greater in lactating cows inseminated following ovulation of a third-wave follicle compared with a second-wave follicle. The number of follicular waves is not apparent during the estrous cycle. However, GnRH injection on Day 6 is supposed to initiate a new follicular wave earlier; as a result, the number of cows with 3 follicular waves will be increased. This study was done to change the 2-follicular-wave cycles to 3 follicular waves during the estrous cycle. The estrous cycles of 10 cows were synchronized with 2 i.m. injections of prostaglandin F₂α, given 11 days apart. The cows were randomly assigned to 1 of 2 treatments. Cows in the control treatment received no treatment, whereas GnRH6