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monitored daily by transrectal ultrasonography with a real-time linear scanning ultrasound diagnostic system. Ultrasonography was performed once daily from the day that second $PGF_{2\alpha}$ inject until the day of next estrous. The follicular wave during which growth phase the treatment was administered was designated as wave 1. Any follicular wave induced by treatment was designated as wave A. The follicular wave emerging after the induced wave (GnRH treated cows) or the follicular wave emerging after 7–8 days after the emergence of wave 1 (control

W201 Effect of dry period lengths on complete blood count in early lactating Holstein cows. A. Soleimani*[1,2], A. Heravi Moussavi[1], M. Danesh Mesgaran[1], A. Golian[1], and S. Safa[1], [1]*Department of Animal Science, Ferdowsi University of Mashhad, Iran*, [2]*Islamic Azad*

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The study was designed to test the effect of reducing dry period length on complete blood count and differential white blood cell count in early lactating cows. Cows were randomly assigned in 1 of 2 treatments: 1) traditional 60 d dry period (n=14) and 2) a shortened 35 d dry period (n=15). Holstein cows were blocked in pairs based on their previous 305 d milk, parity and expected calving dates. All cows were fed by routine ration of farm (total mixed diet). Using vacutainer tubes, blood samples were collected weekly from -7 to 50 day relative to calving via venipuncture of coccygeal vessels before the morning feeding to monitor complete blood count (CBC). The blood samples were kept in room temperature until analyzing for CBC by a hematology analyzer. The data were analyzed using the Mixed procedure of SAS for a completely randomized design with repeated measures. The white blood cells (P=0.64; 12277 ± 1798 and 13468 ± 1733 /µl, respectively), red blood cells (P=0.58; 5283037 ± 104596 and 5363237 ± 100280 /µl, respectively), platelet (P=0.13; 250271 ± 16913 and 286354 ± 16122 /µl, respectively), hemoglobin (P=0.91; 8.09± 0.15 and 8.11± 0.14 g/dl, respectively), hematocrit (P=0.70; 27.97 ± 0.5 and 28.24 ± 0.5%, respectively), and also number of neutrophils (P=0.52; 3445.3 ± 198 and 3622.6 ± 188, respectively), lymphocytes (P=0.59; 7703.9 ± 1609 and 8920.2 ± 1547, respectively), monocytes (P=0.82; 685.6 ± 100 and 716.5 ± 96.4, respectively) and eosinophils (P=0.52; 173.8 ± 23 and 152.8 ± 22, respectively) were all similar among the groups. Red blood cell, hemoglobin and hematocrit were decreased and platelet were increased over the time (P<0.05). Result of this study showed that the reduced dry period length had no effect on cell blood count and differential white blood cell count.

Key Words: dairy cow, dry period, complete blood count

(65.5) boars. After 10 d of storage, VAP was greater (P < 0.01; SE = 2.5) for sperm from boars fed Sel-Plex (77.2) compared to selenite-fed boars (57.2). Sperm VAP from control boars (65.2) was not different (P > 0.16) from either the Sel-Plex- or the selenite-fed boars. Results indicate that dietary organic selenium supplementation may help ameliorate the negative effects of semen storage on sperm motility.

Key Words: boar, selenium, semen

W203 Effect of melatonin on in vitro manipulated rat oocytes and embryos. S. Nandi*[1,2], V. Girish Kumar[2], and F. C . Gwazdauskas[3], [1]*National Institute of Animal Nutrition and Physiology, Bangalore, India*, [2]*Karnataka Veterinary Animal and Fishery Sciences University, Bangalore, India*, [3]*Department of Dairy Science, Virginia Polytechni Institute and State University, Blacksburg.*

Melatonin, N-acetyl-5 methoxytryptamine, acts as a powerful agent against reactive oxygen species (ROS) and a potent apoptosis blocker. The aim of the present study was to investigate the effect of different concentrations of melatonin on the development of rat oocytes and embryos in vitro. In experiment 1, control (38.5°C) and heat stressed (39°C during maturation) and chemically stimulated (glycolytic stimulator dinitrophenol, DNP:10 µM and glycolytic inhibitor hexametaphosphate, HMP:100 µM) oocytes were matured in vitro in 9 different concentrations (0, 1, 5, 10, 25, 50, 100, 500 and 1,000 µM) of melatonin. The maturation rates were recorded after 24 hrs of culture. The oocytes were fertilized in vitro and the resultant embryos were further cultured for the production of morulae/blastocysts. Supplementation of melatonin at 10 µM concentration in the oocyte culture medium resulted in a significantly higher (P < 0.05) maturation rate (control: 90.3%, heat stressed: 84%,