



Impact of vitamin E and selenium supplementation on oxidative stress indices during transitional period of buffalo cows.

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Abstract:

Optimal transition buffalo health is the key to success in the subsequent lactation. Increasing attention has been focused on management and nutritional practices that support it. The present research, therefore, aimed to investigate the oxidative stress indices in blood during periparturient period and the effects of vitamin E and Se supplementation on them. Oxidative stress was evaluated by measuring steady concentration of free radicals in blood, rate of lipid peroxidation and activity of antioxidant enzymes in erythrocytes, oxidants antioxidant status was evaluated in 22 buffalo cows. Weekly vitamin E and selenium supplemented buffaloes (n = 15) was started 8 weeks before calving; the control buffaloes (n = 7) were not supplemented. Blood was sampled 4 times with 2 weeks interval for 8 weeks before calving, on calving day, and weekly done 4 times after calving. Blood samples were analyzed for nitric oxide (NO), Malondialdehyde (MDA), Superoxide dismutase (SOD), Catalase, Glutathione peroxidase (GSH-px) and vitamin E. Results showed that concentrations of NO, MDA decreased (p

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