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Original Articles

Concentration of Copper, Iron, Zinc, Cadmium, Lead, and Nickel in Bull and Ram Semen and Relation to the Occurrence of Pathological Spermatozoa

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In this st kel in bull and ram as investiga t copper conce rison with bull s with ram semen. gher concentr found in ram sem logical spermat s in ram semen (l, tail torso, and kno ozoa in both species. Correlation analysis in bulls showed high positive relation between iron and

zinc (r = 0.72), nickel and separated tail (r = 0.76), separated tail and tail torso (r = 0.71), tail torso and total number of pathological spermatozoa (r = 0.72), and between tail ball and total number of pathological spermatozoa (r = 0.78). In rams high positive correlation between cadmium and lead (r = 0.98), nickel and separated tail (r = 0.77), separated tail and total number of pathological spermatozoa (r = 0.69), knob twisted tail and retention of cytoplasmic drop (r = 0.78), and between knob twisted tail and other pathological spermatozoa (r = 0.71) was found. High negative correlation in ram semen was observed between copper and nickel (r = 0.71), copper and separated tail (r = 0.70), and between iron and tail torso (r = 0.67). The results suggest that the studied metals have a direct effect on spermatozoa quality.

Keywords:

Trace elements | Semen | Pathological spermatozoa | Bull | Ram

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