

Actividad de antioxidantes en toros normando [

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text (article)

Analítica

The aim of the study was to evaluate the activity of the antioxidant enzymes glutathione peroxidase (GPx; EC 1.11.1.9), and superoxide dismutase (SOD; EC 1.15.1.1) in blood, blood plasma and seminal plasma, and to correlate them with seminal characteristics (i.e. volume, individual and total motility, concentration, ratio of live and death cells, and hyposmotic test) in Normande bulls. Semen and blood samples were collected from each bull (n = 20) from farms located in the high Andes mountains in Caldas State (Colombia). Data were analyzed by a linear regression model. The blood activity of GPx was 80 " 48 U/g Hb, 0.09 " 0.1 U/ml, and 0.9 " 0.7 U/ml, in blood, blood plasma and seminal plasma, respectively. There was no relationship to either seminal characteristics or hyposmotic test (p>0.05). The activity of SOD was 940 " 374 U/g Hb, 120 " 73 U/ml, and 5.1 " 2.6 U/ml, in blood, blood plasma, and seminal plasma, respectively. There was a negative trend (p = 0.06) in the relationship of SOD activity in seminal plasma to hyposmotic test; however, there was no association to other seminal characteristics (p>0.05). The blood activity of both enzymes suggested a suboptimal intake of Se, Cu, and Zn, and it was not translated into an adequate antioxidant defense of the seminal plasma. It suggested the activity of undetermined isoenzymes or and independency between blood and testicle compartments

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Baratz Innovación Documental

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- informa@baratz.es