EFFECT OF GRAZING SYSTEM ON HEMATOLOGICAL PARAMETERS OF SHEEP AND CATTLE

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Considering the adverse effects of infections of gastrointestinal parasites in sheep, including effects on the hematological system and resistance to anthelmintics, there is a need to develop alternatives for their control. The aim of this study was to compare the grazing systems (cattle and sheep in single species pastures, simultaneous and alternate grazing of sheep with cattle) in terms of hematologic variations in the animals. The experiment was conducted in central-west Brazil. Eight hectares of Panicum cv Tanzania was subdivided into paddocks of 0.25 ha, in which four management systems were studied: 1 - Grazing cattle alone; 2 - Grazing sheep alone; 3 - Grazing sheep and cattle in the same pasture simultaneously; and 4 - Alternate grazing sheep and cattle, with sheep grazing after cattle were removed from the pastures. The experimental animals were 12 growing cattle with an average weight of 200 kg and 30 Santa Ines lambs with average weight of 20 kg. The animals received water and mineral salt ad libitum and a daily allowance of 200 and 2245 grams / animal concentrate (sheep and cattle, respectively). The animals were dewormed prior to entering the experimental area. Blood was collected from all animals fortnightly. Blood tests included eosinophil count, hematocrit, total plasma protein - TPP (refractometer), albumin and hemoglobin levels (commercial kits LABTEST®). Statistical analysis was performed using the SAS program. The blood values of all animals were within the physiological values. In sheep, all parameters except eosinophil count were affected by treatment (P< 0.05). The animals on the alternate grazing system had the lowest mean TPP and albumin, whereas the simultaneous grazing had the highest mean hematocrit, hemoglobin and TPP. The highest mean of albumin and the lowest averages of the other variables were observed in sheep grazing alone. In cattle, only the hematocrit showed statistically significant differences, with lowest average for simultaneous grazing. No significant interaction of time was seen with the blood parameters. The mixed treatments had average blood values average. Sheep had better hematocrit values in simultaneous grazing, which may be indicated as the best system for rearing sheep.