## REFERÊNCIA:

PARANHOS da COSTA, M. J. R.; TOLEDO, L. M. de; CROMBERG, V. U.; PIOVEZAN, U.; CYRILLO, J. N. S. G.; RAZOOK, A. G.; RUGGIERI, A. C.; FIGUEIREDO, L. A. Behaviour of the cow and calf at calving and its relationship to the calf's weight or death until weaning. In: 33<sup>rd</sup> INTERNATIONAL CONGRESS OF THE INTERNATIONAL SOCIETY FOR APPLIED ETHOLOGY, 33, 1999, Lillehammer. Anais... Lillehammer. 1999. p.73.

## BEHAVIOUR OF THE COW AND CALF AT CALVING AND ITS RELATIONSHIP TO THE CALF'S WEIGHT OR DEATH UNTIL WEANING

MATEUS J.R. PARANHOS da COSTA,<sup>1,2</sup>, LUCIANDRA M. de TOLEDO,<sup>1,3</sup>, VALTER U. CROMBERG <sup>1</sup>, UBIRATAN PIOVEZAN <sup>1</sup>, JOSLAINE N. dos S. GONCALVES CYRILLO<sup>4</sup>, ALEXANDER G. RAZOOK<sup>4</sup>, ANA CLAUDIA RUGGIERI<sup>4</sup> and LEOPOLDO A. de FIGUEIREDO<sup>4</sup>.

Beef calf death and low weight may result from absence of, delayed or insufficient ingestion of colostrum. New-born weakness, poor maternal behaviour and cows presenting big udder/teats often delay the colostrum intake and, by these should have an effect on calf mortality rate. In order to study the relationships among these characteristics we observed 239 mother-young pairs at calving in four breeds (Nelore=129, Guzera=54, Gyr=27 and Caracu=29. There were observed from birth to first suckling or during 6 hours after birth, at pasture in a research farm. The percentage of time spent by cows licking and sniffing their calves (time taking care); the calves' latencies to stand up (representing calf weakness) and to suckle; cow's size (classified as small. medium and big); and calves' weight at 4 months old and at weaning, andmortality from birth to weaning were recorded 3.7% of Nelore calves, 32.14% Guzera, 18.52% Gyr and 24.13% Caracu failed to suckle naturally, in these cases the first suckling occurred from 18 to 24 hours after birth, after help by herdsmen. The latency to first suckling was positively correlated with the latency to stand up [<sup>r</sup>Nelore=0.61 (P=0.0001). <sup>r</sup>Guzera=0.51 (p=0.0007), <sup>r</sup>Gyr=0.53 (p=0.0078) and <sup>r</sup>Caracu=0.34 (p=0.0929)] and negatively correlated with the time spent by cows taking care [Nelore= -0.44 (P=0.0001). Guzera= -0.46 (p=0.0027), Gyr= -0.40 (p=0.0536) and Caracu= -0.65 (p=0.0005)]. Big teats occurred in all breeds (13.95, 51.55, 31.0 and 53.0% for Nelore, Guzera, Gyr and Caracu. respectively), but its statistical effects on the latency to first suckling occurred only for Guzera (Anova, F =4.197, p<0.05), probably due to differences in the breed's sample size and also because Nelore and Caracu calves were more active in teat seeking. From all the dead calves 0% of Nelore, 50% of Guzera and Gyr, and 100% of Caracu falied to suckle naturally. There were no significant correlation between the calves' weights (at 4 months old and at weaning) and the measured cow-calf behaviour. As expected, the cow-calf's behaviour at calving was related to calf death rate during the research period, but not to calf weight gain.

<sup>&</sup>lt;sup>1</sup>ETCO-Grupo de Estudos e Pesquisas em Etologia e Ecologia Animal. Departamento de Zootecnia. FCAV/UNESP, 14870-000, Jaboticabal-SP, Brasil.

<sup>&</sup>lt;sup>2</sup> Present adress. Animal Welfare and Human-Animal Interactions Group, Department of Clinical Veterinary- Medicine, University of Cambridge, CB3 OHS, Cambrindge, UK (sponsered by Fapesp, grant N<sup>0</sup> 97/4035-9).

<sup>&</sup>lt;sup>3</sup> Programa de Pós- Graduação em Zootecnia, FZEA/USP, Pirassununga- SP, Brasil. 4 Edição Experimental de Zootecnia de Sertãozinho, Instituto de Zootecnia, Sertãozinho- SP, Brasil