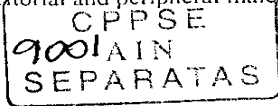


treatment had a differential effect on T levels and parasite load on the basis of male rank: it increased parasite load in sneakers while it did not affect it in territorial and peripheral males.



Factors affecting the first suckling latency in nelore calves

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The absence of or delay in the ingestion of colostrum increases the risk of beef calf death. Cows presenting big udder/teats and poor maternal behaviour, usually delay the colostrum intake, as well as new-born weakness. The objective of this study was to analyse the first suckling latency in Nelore calves (*Bos taurus indicus*) and its underlying factors. Two hundred and two cows and their calves were observed in three beef cattle farms in São Paulo State, Brazil. Data were collected during the day of birth until the first suckling, using direct and continuous focal sampling. The following variables were calculated: latency of the cow's first trial to stand up (LTS); latency to stand up (LS); difference between standing up and suckling (DSS); first suckling latency (FSL); time taking care of the calf (TCC). An analysis of variance was performed and correlation coefficients were calculated, which led to the following conclusions: (1) there were individual differences in LTS and LS; (2) more active calves had low FSL; (3) udder formation and teat size have affected FSL; (4) LTL and LL seemed to be good indicators of calf agility, they could be used to facilitate the diagnosis of problems during post-calving period; (5) experienced cows had higher TCC, they were more able to help their offspring to suckle, decreasing their FSL.

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Social evolution in stingless bees: are the workers or is the queen in control of male production?

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Over the past decade, theoretical advances within a kin-selection framework have highlighted the potential evolutionary conflicts that exist amongst nestmates of social Hymenoptera. One such potential conflict concerns the laying of eggs that develop into male (sexual) offspring. In most eusocial Hymenoptera, such as the stingless bees (*Meliponini*), both queens and workers can lay unfertilised eggs that develop into males, and they may compete to monopolise male production. Kin selection theory predicts that, when a colony is headed by one queen that mated one male, workers should prefer to raise sons and nephews whereas the queen should prefer her sons (brothers of workers) to be raised. We examine this prediction by determining queen mating frequency and the origin of males in two monogynous stingless bees, *Melipona beecheii* and *Scaptotrigona postica*. Genetic analysis of worker broods using highly variable microsatellites was used to demonstrate single mating by queens in the former and variable but low mating frequency of queens in the latter species. Genetic analysis of male brood suggests that the queen is the source of male eggs in