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Performance and incidence of diarrhea in suckling Jersey calves supplemented with mineral-vitamin complex and Virginiamycin --Manuscript Draft--

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Full Title:	Performance and incidence of diarrhea in suckling Jersey calves supplemented with mineral-vitamin complex and Virginiamycin
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Abstract:	The rearing of calves is an essential activity of a dairy system, as it impacts the future production of these animals. This study aims to evaluate the incidence of diarrhea, performance and blood parameters of suckling calves that received mineral-vitamin supplementation in milk plus virginiamycin that was offered in milk (via the abomasum) or by esophageal tube (via the rumen). Twenty-seven calves were used, from the first week to 60 days of age, submitted to the following treatments: CONTROL, without supplementation; MILK, supplementation of 20 g of a mineral-vitamin complex with 100 mg of virginiamycin, diluted in milk; RUMEN, supplementation of 20 g of a mineral-vitamin complex diluted in milk and 100 mg of virginiamycin in gelatin capsules via an esophageal applicator. MILK and RUMEN calves had lower fecal consistency scoring, fewer days with scores 2 and 3 throughout the experimental period, and lower spending on medication compared to the CONTROL animals. Supplemented calves had higher fat and protein intake and reached feed intake of 600 g earlier than CONTROL animals, but did not differ in performance and hematological parameters. Supplementation with virginiamycin and vitamin-mineral complex for suckling calves reduced the incidence and days of diarrhea, reduced medication costs, with no difference in performance, but the supplemented animals had higher initial feed intake and reached 600 g seven days earlier.