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Dairy

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I understand

Increase in total solids of whole milk and its effects on development of dairy calves

Rafael Alves de Azevedo*¹, Sâmara Raiany de Almeida Rufino¹, Pâmela Michéli Furini¹,
Fernanda Samarini Machado², Mariana Magalhães Campos², Paulo Campos Martins¹, Aloma
Eitere Leão¹, Ângela Maria Quintão Lana¹, Sandra Gesteira Coelho¹; Federal University of Minas
Gerais, Belo Horizonte, Minas Gerais, Brazil¹, EMBRAPA Dairy Cattle, Coronel Pacheco, Minas
Gerais, Brazil²

Objectives were determine the best total solids (TS) concentration in liquid diet consisting of whole milk (WM) and milk replacer (MR) and its effects on preweaning calves feed intake and

performance. Sixty crossbred Holstein-Gyr calves were distributed in four treatments, maintaining the balance for initial body weight and total protein concentration in blood serum and genetic composition. The treatments consisted of WM with the increasing addition of MR (Sprayfo Violet SSP), to adjust the TS to 12.50; 15.00; 17.50 and 20.00%, after the measurement the TS in WM using Brix refractometer (DD-3 MISCO Palm Abbe Digital), which had the degree brix value converted to TS (Moore et al., 2009). TS contents verified in the treatments after the addition of MR were 13.50; 16.10; 18.20 and 20.40%. The calves were fed 6 L/d, divided in two equal meals (8 and 16h) provided in buckets, from 5 to 55 days of age. From 56 to 59 days, the volume was reduced to 3 L/d (8h). At 60 days the animals were weaned. Starter (Soylac Rumen 20% CP) and water were provided *ad libitum* throughout the experiment. Feed intake, feed efficiency, average daily gain (ADG), structural body measures and days of diarrhea were measured. Data were analyzed by ANOVA using the PROC GLM procedure of SAS. Increasing TS resulted in a linear increase in water intake, total DMI, ADG, withers height and hearth girth. Starter intake, days of diarrhea, hip width and feed efficiency did not change as the TS increased up to 20.4%.

KEYWORDS

milk system
milk replacer