Effects of Mineral Supplementation on Pre-Weaned Calves

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Calves often go through a great amount of stress during the weaning process which can result in varying endocrine and neuroendocrine levels, and this study aims to determine the optimal level of mineral supplementation that would result in better animal performance and health.

A group of 24 calves were fed supplements three times per week over a 5-month period. The supplements, composed of copper, selenium, and zinc, were mixed with one pound of cattle grain and fed to each calf.

The supplements used in this study were composed of three minerals: selenium, copper, and zinc. After measuring out each mineral, the supplements were mixed with 1 lb. of each calf’s feed. Supplements were made in two categories: NRC and Super. The only difference between the two is the amount; Super supplements are double the size of the NRC’s. The weight of the calf determined which supplement it would receive; larger calves received Super, smaller received NRC.

Zinc: 0.4546g NRC, 0.9092g Super
Copper: 0.2152g NRC, 0.4304g Super
Selenium: 0.0538g NRC, 0.1076g Super

Outcome: This was the 2nd year of the study; it is still ongoing and pending final results and will conclude in December 2021. During my time working on this study, the calves became adjusted to the supplements and became used to eating them. In conclusion, we hope that the supplements will prove to be beneficial to calves going through the weaning process, which will lead to healthier and better-performing herds of cattle.