

No. 0717

Development of Solid Salt Feeding Method for High-Quality Beef Production from the View Point of Mineral Balance

HIROAKI NAKAJIMA & TETSUO KONTA

Yamagata General Agricultural Research Center Department of Livestock Science

Summary

As mineral salary methods for ruminant such as cows, solid salt is generally used. Solid salt is used for breeding hyperactivity and prevention of urolithiasis and the disease prevention that we said mainly. Therefore, by this study, we clarify it about the influence that a difference of a mineral gives to production of beef of a Japanese Black. Furthermore, about solid salt used for prevention of disease, we thought about mineral balance and reviewed use procedure for elaboration of beef of high quality.

A difference was found between farms when we compared it between a mineral included in water, a mineral included in feed, these farms which we measured it, and fattening a Japanese Black. We used a mineral included in water, a mineral included in feed, these measurement results and carcass grading results (BMSNo. so-called "marbling beef", Rib eye area, Rose thickness, Subcutaneous fat) and analyzed it. As a result, the next association was suggested. We resembled it, and Na in water, Zn in feed, these 2 were associated BMSNo. Na in water, Zn in feed, K in feed, Ca in feed, these 4 were associated with a sirloin core area. Na in water, Na in feed, these 2 were associated with a rose thickness. As for the subcutaneous fat, pH in water, K in water, these 2 were associated. Based on these results, we performed carcass grading results and a prediction profile of a mineral. When BMSNo. became 6.60 in feed when we increased Na 9.75 ppm in Zn 0.19 g, water, we predicted it. When a Rib eye area became 52.81 cm² in feed when we increased Na 9.51 ppm in Zn 0.19 g, water, we predicted it.

In this study, it became clear that minerals such as Na contributed to BMSNo. and carcass grading results such as sirloin core areas. By adding a necessary mineral by solid salt, the likelihood that could improve by production of beef was suggested. However, it is necessary to add optimum dose after having grasped a mineral included in water and feed by there being bad influence by excessive addition. It will be necessary to study enough quantity and form to give such as solid salt in future on putting practical use methods to practical use.