

Salt may save the earth

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A research project by the Animal Nutrition department of Wageningen University suggests that increased dietary salt intake could decrease milk urea level in dairy cows. Based on the correlation between milk urea and urinal urea, it is expected that the urinal urea will also reduce. Nevertheless, this assumption still needs to be proved in the further study.

Urea excretion in dairy farming, as one of the major sources of ammonia emission, is a crucial international environmental problem aroused by agriculture. Urinal urea plays the most important role. With the development of dairy sector in Europe, the surrounding climate and ecosystem is under a great risk. Atmospheric ammonia can lead to cloud and acid rain, and when ammonia deposit back to ground or water it increases the amount of available nitrogen. Although nitrogen is important for all life forms, excessive nitrogen would lead to imbalanced ecosystem. In order to protect our living environment and ecosystem, the Netherlands and other 22 European countries have come to an agreement in Gothenburg Protocol to restrict national ammonia emission. Practical solutions for dairy farming are required to help the Dutch government to meet the goal of emission control.

The researchers suggest that adjusting dietary salt, as a cheap and easily manageable measure, could have a promising practical impact. A clear reduction of milk urea level was observed when the cows were fed with more salt. Because of the high correlation between milk urea and urinal urea, it was expected that urinal urea would also reduce with higher salt intake. To confirm this, the researchers will keep on their study. If the result is positive, salt could be widely used in dairy farming to reduce ammonia emission, and our world wide environment could be saved. However, it seemed that milk production also reduced with higher salt intake. This may become a bottleneck of salt since production is still one of the most important things in dairy farming. It will be under discussion if dairy farmers should sacrifice production to prevent more ammonia emission.