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Ionophores Do Not Appear to Work in Molasses Supplements

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Ionophores are compounds fed to cattle that influence microorganism populations in the rumen such that feeds consumed are digested and utilized more efficiently. Ionophores are used extensively in the feedlot industry because they significantly improve feed efficiency. Feedlot cattle fed diets containing ionophores gain at the same rate as cattle fed diets without ionophores, but cattle fed ionophores consume 10 to 15 percent less feed to make the same gain.

Growing cattle fed forage-based diets gain faster when fed dry supplements containing ionophores. There is also a tendency that these cattle gain faster while consuming less forage, thus an improved feed efficiency.

The Range Cattle Research and Education Center has conducted a number of trials on the use of ionophores in molasses-based supplements fed to cattle grazing improved pasture. The ionophores tested included both monensin (Rumensin) and lasalocid (Bovatec). These trials were conducted with heifers, steers, and mature cows. It was anticipated that the ionophores would improve either rate of gain, body condition, and/or reproductive performance.

In short, these studies did not show a positive response to ionophores added to molasses-based supplements. There has not been a response in either rate of gain, body condition, or reproductive performance. It is not fully known why ionophores do not work when added to molasses-based supplements when they work quite well when fed in dry supplements. Ionophores alter the populations of certain microorganisms in the rumen by changing the transport of potassium and sodium across cellular membranes. It is suspected that the relative high level of potassium in molasses (around 3 percent) may

inhibit the mode of action of ionophores when fed in combination with molasses based supplements.