AAlphaTek® Producer Q&A

Tim Thompson is a Senior Dairy Specialist for the upper Midwest and has been feeding AAlphaTek®—a supplement that changes rumen fermentation in dairy rations resulting in higher milk fat and energy corrected milk yield, and income over feed cost—since its start in 2005. We asked him to answer his most often asked questions from producers about rumen undegradable protein (RUP) and feeding AAlphaTek.

What is rumen undegradable protein (RUP) and why is it important?

Rumen undegradable protein is also known as "bypass" protein. A cow's rumen will produce the microbial protein necessary to meet the cows needs for amino acids, and the leftover protein bypasses through to the intestine. The higher the production of the cow, the more metabolizable protein (or amino acids) she will need to make her milk and components. This is where we supplement the cows with more sources of protein that bypass the rumen or avoid degradation to meet these additional requirements.

How can I feed more RUP?

We can do this in a number of ways.

1. The most popular is feeding protein sources that do not degrade in the rumen and other protected sources of amino acids. This has been proven over the years as a beneficial and profitable solution for meeting the protein and amino acid needs of high producing cows. The downfall is that bypass proteins and amino acids tend to be more expensive than the typical soybean meal or other forage proteins.

2. The other way is to use a rumen modifier that slows down the effects of the rumen microflora and increases the bypass or rumen undegraded protein from all the feeds we are feeding. This is less expensive and can supplement a cow's protein needs.

When does feeding a supplement that modifies RUP, like AAlphaTek, make sense?

A good indicator is your MUN (or Milk Urea Nitrogen) levels. For example, if you are running greater than 11 MUNs, or your milk component levels are lower than desired. AAlphaTek makes sense as it will not increase your cost over any other basic protein source you are feeding. Depending on your ration it may or may not meet the additional amino acid needs of the animal. but it can be a start. As a reference, AAlphaTek can supply the equivalent amount of bypass protein found in roughly 0.40 pounds of blood meal.

What results have you seen on farms feeding AAlphaTek?

Typically, a producer can see anywhere from 0.05$ - 0.30$ /head/day of savings in feed costs (depending on their ration and commodity prices)[1]. All this comes with no change to milk production while also lowering MUN levels, showing less nitrogen loss in the rumen. Again, depending on a farm's ration, higher

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milk production and milk protein production may be seen as the herd's production level stable. A slight increase in butterfat production may also happen and can be independent of whether milk or protein respond or stays stable. When modeled correctly, at the very least you will see a cost savings.

What if I am not feeding bypass protein sources, are there still benefits from AAlphaTek?
Yes, if group(s) of cows are producing MUNs levels higher than 11 there is a good chance that adding AAlphaTek to those rations could result in a higher energy corrected milk (ECM) response. In recent trials, that response has been in the four-to-six-pound range of ECM, resulting in at least a 7:1 return on your investment.

Are there long-term benefits to feeding AAlphaTek?
Cost savings is the main benefit, but in rations that might be running higher than normal MUN levels and struggle to bring them down, this could be the help you are looking for. We know lowering MUNs is beneficial to cow health and reproduction as well as the environment.

Where and how many herds are you feeding AAlphaTek?
All over the United States. We have herds in the West, Midwest, and East who feed AAlphaTek. For me personally, AAlphaTek is included in 100% of the herds that I formulate diets for. I also consult with approximately 40 or so consultants that feed some 400,000 cows over 1000 farms.

[1] Proprietary data from internal trials as well as two field demonstrations.

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