

PRESS INFORMATION from *The Dairy Group*

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40% Mineral price rise and what to do.

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A major fire at the BASF, Citral plant in Germany has severely reduced world stocks of Vitamins A and E. Citral is a major pre-cursor of these vitamins and as the German plant supplies close to 40% of global supply, it will have a major impact. The plant is not expected to be running much before March 2018. In addition some of the Chinese plants are working less than 5 days a week to comply with stricter air pollution requirements.

The price of Vitamin A has already increased by 600% and the price for both Vitamins may increase by as much as 1000%, greatly increasing the cost of mineral products. Some UK companies are planning to substantially reduce levels of the vitamins to avoid running out.

Role of vitamins.

Vitamin A is a fat-soluble vitamin which is essential for growth, bone growth, vision, reproduction and in the formation of epithelial tissues which can impair their ability to fight off infections. Vitamin A is prone to degrade in sunlight and high temperatures, in feeds stored for long periods and when mixed with minerals.

Vitamin E is also fat-soluble and is critical for reproduction, muscular, circulatory, nervous and immune functions. As with Vitamin A it is readily broken down in fermented feeds and by-products stored for a long time. High levels of Iron will rapidly destroy Vitamin E.

Vitamin content of feeds.

Fresh herbage is very high in carotene compounds and ruminants can produce Vitamin A from these, in particular beta carotene. Vitamin A will break down when ensiled and most grains and by-products are also very low. Hay is an excellent source of carotene and so the animal can convert a lot of this into Vitamin A. Vitamin E levels are excellent in cereals and legumes, but typically low in Soya.

Requirements

High yielding cows and youngstock are most prone to deficiency symptoms. Calves are born with virtually no reserves and colostrum is a major first supply.

NRC, (National Research Council), targets are well accepted for ruminants.

	Milking cows	Dry cows	Bulling heifers
Vit A (IU per head)	75,000	82,610	36,000
Vit E (IU per head)	545	1200	360

Any cow receiving more than 8kg of a typical dairy compound will be able to meet these requirements, provided they are not reduced by the compounder. Background levels in forages will boost Vitamin levels particularly in grass silage. Cows on a TMR system will need at least 150g per cow, but this will depend on the ratio of grass silage to maize silage. Dry cows, because of their low intake levels, will require up to 150g per cow to meet their needs.

To fully look after fertility and the immune system, don't be tempted to reduce Vitamin levels below the recommended levels. If you are concerned about meeting vitamin dietary needs then speak to your nutritionist or contact David Donaldson on 07471 890888.

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