

Global VITAMIN A & E Shortage

By Dr. Jimmy Horner

As some of you may be aware, worldwide supplies of vitamin A and vitamin E have been reduced significantly in recent months resulting in serious shortages and higher feed prices which are expected to continue for the foreseeable future.

Specific factors leading to this industry-wide shortage include curtailed production by the Chinese early last year due to supposed environmental concerns and a fire at a BASF plant in Germany which is a major producer of a compound required to manufacture synthetic vitamin A and E. Nobody really knows when the Chinese will resume normal production of these vitamins and operations at the German facility are not expected to resume until April or May.

Many U.S. feed suppliers have notified their customers of the potential impacts of the vitamin supply crunch. Some manufacturers are also reducing the concentration of the affected vitamins in their feed and mineral products in an attempt to stretch their inventories and minimize cost increases. This is fine as long as the needs of the animals are still being met and nutritional deficiencies are avoided.

Cattle at the greatest risk of vitamin deficiencies are calves and breeding stock, and with the current shortage, producers need to ensure their needs are still being met. Producers might also consult with their nutritionists to adjust diets where they can be adjusted and with their veterinarians to minimize any potential health-related issues.

In my view, certain viable nutritional alternatives do exist to help manage your herd's vitamin nutrition and status if you happen to be impacted

by the current vitamin shortage such as: increased use of feedstuffs naturally higher in vitamin content such as alfalfa hay, high quality pasture, and freshly baled hay; minimizing use of fermented forages which are lower in vitamin content; considering the use of natural vitamin sources and antioxidants; and vitamin injections.

Both vitamin A and E are classified as fat-soluble vitamins and are primarily stored in the liver which means that cattle can rely on liver stores of these vitamins for a temporary period of time if needed (no more than 60-90 days depending on initial liver stores and nutritional requirements).

Both vitamin A and vitamin E are critically important in the nutrition and health of cattle with both being involved in immunity, resilience against pathogens, and reproductive health. In addition to being required for normal growth, vitamin A is also of vital importance for vision, bone growth and embryonic development.

Vitamin E serves as a natural antioxidant protecting the health and integrity of tissue. Vitamin E is also critical in avoiding retained placenta and metritis, and preventing fetal resorption and muscle dystrophy.

The bottom line is producers are now being faced with a temporary yet significant shortage of both vitamin A and E, two essential nutrients in livestock feeds, with this shortage already resulting in higher feed, mineral and supplement prices.

However, I've maintained throughout my career

that the nutritional requirements of cattle have absolutely nothing to do with market conditions. So, even though our industry may be dealing with a global shortage of these specific vitamins, the proper nutrition, health and overall well-being of the cattle under our care cannot be compromised.

Producers and nutritionists may very well be required to get much more resourceful and will certainly need to ensure they're not being wasteful in feeding these vitamins in gross excess, yet our cattle do not need to pay the price of this current situation. Hopefully, this unexpected challenge will vanish before year's end and cattle are still fed properly in the interim even if it means a little more expense and a lot more creativity.

As a complete side note, virtually no vitamins other than a small amount of natural source vitamin E are manufactured in the U.S. any longer due primarily to overly-strict EPA requirements and regulations. This current global shortage should serve as another reminder to us all that relegating the manufacturing of essential feed and food ingredients to other countries such as China might not be the best thing for our long-term future as a country.

Please feel free to contact me at jhorner@protocoltech.net with any questions regarding this article or if you simply wish to discuss this subject further.

