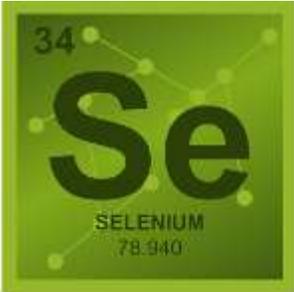


Selenium



Selenium is an essential trace element for ruminants. It is required in cattle for normal growth and fertility and for helping to prevent other health disorders such as mastitis and calf scours. Many

pastures are short in natural selenium levels. Therefore, cattle should be supplemented with selenium. The level of selenium in the pasture is dependent on the level of selenium in the soil. Pastures have the lowest levels of selenium occurring in the spring and summer. Un-supplemented cattle at pasture, such as late lactation or dry cow and cycling heifers are much more likely to show signs of selenium deficiency than housed cattle on a balanced mineral ration.



Signs of selenium deficiency include:

- Lower milk production
- Decrease in fertility in adult cattle
- Retained fetal membranes
- Mastitis
- Stiff-legged gait
- Weakness and unable to walk
- Premature, weak calves, perinatal death and abortion.

For young cattle, selenium deficiency symptoms are poor growth rates, chronic diarrhea, and retention of winter coats. In pigs, selenium deficiency can also cause liver degeneration. White muscle disease in calves is a sure sign of selenium deficiency.

White Muscle Disease

White muscle disease is also known as nutritional abnormality of muscle tissue. It is normally seen in young calves and is associated with deficiencies of selenium or vitamin E, or both. Young, growing animals are rapidly creating muscle mass, so selenium deficiency shows itself most commonly as muscle cell degeneration. There are two forms of white muscle disease. One is a congenital form that affects the cardiac muscle and a delayed form that is associated with either cardiac or skeletal muscle.



Signs of white muscle disease in young animals: may appear stiff, lame or weak; spend most of their time lying down and resting their chin on the ground; and have diarrhea.

Calves affected by congenital form of white muscle disease usually die within 2-3 days of birth due to cardiac muscle degeneration. If the muscles involved with swallowing are affected, food can be inhaled instead of ingested, which causes aspiration pneumonia. Cattle affected by the delayed form of white muscle disease may exhibit signs ranging from general unthrift and stiffness, to walking with an arched back and spending more time recumbent, depending on the levels of selenium in the diet. Adding selenium to feed for breeding animals or their young is a great way to prevent selenium deficiencies. The recommended supplemental level is 0.3 ppm selenium.

Product of the week

"O" Selenium & Vitamin Premix



"O" Selenium & Vitamin Premix is formulated to supplement the nutritional needs of livestock. Contains selenium derived from selenium yeast and provides supplements vitamins, including vitamin A, D3, and B complex. Add "O" Selenium & Vitamin Premix to rations deficient in selenium and other vitamins. "O" Selenium & Vitamin Premix is especially helpful for animals in high-stress conditions or for use on farms with a written veterinary prescription calling for selenium over the FDA legal limit.

Selenium Deficiency Conditions in Animals



- Reduced fertility
- Nutritional muscular dystrophy
- Retained placenta
- Cystic ovarian disease
- Un-thriftiness
- Anemia
- Mastitis
- White muscle disease



- Hepatosis dietica
- Mulberry heart disease
- Nutritional muscular dystrophy
- Edema
- Impaired spermatogenesis



- Nutritional muscular dystrophy
- Un-thriftiness
- Infertility in ewes
- White muscle disease