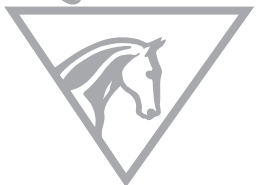


EQUISTRO®



Description: The horse is able to synthesize vitamin A (retinol) from β -carotene and as such strictly speaking has a dietary requirement for the latter only. In the small intestine, β -carotene from the diet is converted to retinol by enzymes. β -carotene is a natural pigment found in plants. Vitamin A is fat soluble, so it is stored in fatty tissues and, above all, in the liver.

Function: *Vision:* A metabolite of vitamin A is a major compound of the retina rod and cone cells, allowing the photoreception of the light by the eye. Its function in night vision is very important. *Reproduction:* Vitamin A functions in cell differentiation and as a result, plays crucial roles in reproduction and development of the foal in utero. *Immunity:* Vitamin A is important for maintaining immune response to infection. *Skin and mucosa:* Preservation of skin epithelial tissues and mucous membranes. *Growth:* Vitamin A is a cofactor stimulating chondrocyte differentiation (cartilage growth).

Sources: β -carotene from plants (pasture>forage>grain) is the primary naturally occurring pro-vitamin A source in feedstuffs used for horses. Lucerne meal, red carrots or grass silage can help to counteract a vitamin A deficiency. Cod-liver oil is also a vitamin A source.

Daily Requirements (NRC, 2007): 30 to 60 IU/kg body weight (9 to 18 μ g/kg body weight).

Deficiency: Anorexia, salivary gland abscesses, higher incidence of respiratory and intestinal disease, low rate of growth, weight loss, dull hair, anaemia, tearing and night blindness, keratinisation of skin and cornea. In reproduction: sub fertility, lower birth weights and contracted tendon in foal following vitamin A depletion of the dam.

Excess: Bone fragility, hyperostosis (excess bone formation), developmental orthopaedic disease in growing horses, exfoliation (flaking) of the epidermis, teratogenesis (strange tissues appearing in other tissues e.g. tooth growing in a testicle) and increased blood clotting time.

When problems may occur?: Clinical signs of deficiency occur under fairly extreme conditions of deprivation. Deficiencies may arise from failure to supplement feed or from the provision of badly stored old feed: *horses stabled for most of their time, consuming little or no fresh herbage *Horses fed with old forage stored for a long time, with no other intake *Breeding mares deprived of pasture during winter. Toxicity is very rare, it only occurs when an owner over-supplements the diet.

VITAMIN A



Vétoquinol
Signe de Passion

