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EVERGREEN OMEGA-3 OIL

BENEFITS FOR BREEDING

INTRACELLULAR NUTRITION

A typical living cell is composed with an enclosing membrane and inside has a nucleus with chromosomes from which messenger RNA bring the orders of function to minute organs within the cells interior (cytoplasm). Intracellular organelles (the mitochondria) build energy molecules from glucose; hormones are synthesized; and enzymes, some of which build specific molecules needed by the body and others dismember foreign or toxic molecules. The cell sits in a watery milieu from which its cell membrane selectively absorbs nutrients or restricts intake of toxins; and excretes waste products of its own metabolism. The cell cytoplasm and its enveloping membrane have entry sites (gate keepers) for messages carried by circulating hormones; and chemical “ pumps” for maintaining the proper balance of minerals and salts for the necessary catalysts and building material. This requires thinking about the metabolic processes as they extend from the intracellular organs to cell function to organ function to physiologic function and eventually to health itself. Each is immensely intricate and is a complex miracle of life. We must think in terms of nutrients needed by the cell for proper cell activity. Without proper balance of nutrients eventually it ends up at a cellular level and the beginning of degenerative disease. Essential Fatty Acids (**Omega-3**) are essential nutrients needed to do the required job of the intricate cell. The horse’s body does not synthesize (**Omega-3**) DHA and EPA, which means it must be continuously ingested. DHA and EPA are part of the membrane of every cell. Today horses are extremely deficient of (**Omega-3**).

Essential Fatty Acids:

Play a multifunctional role in health:

- 1) Key components in the membranes of cells
- 2) Essential for proper cell metabolism
- 3) Precursors in the prostaglandin cycle, which regulates cellular inflammation
- 4) Crucial in the regulation of gene expression

Omega 3 form the membrane of every one of the billions of cells in the body, the only fats that become prostaglandins. EFA’s increase the fluidity of the cellular membrane.

WHY EFA-3?

EFA-3 (**Omega-3**) contains essential fatty acids. These compounds are called essential because the body cannot produce them, therefore supplementation is necessary. Deficiencies of the essential fatty acids cause problems with hair, hooves, joints, reproduction and sperm motility. **Omega-3** fuels the body with an ideal balance of EFA's and other key nutrients, allowing every cell and system in the body to function more effectively. **Without Omega-3 fatty acids even the best genes cannot build healthy cells.** **Evergreen Equine Omega-3** is pure clinical grade fish oil that offers the purest form of DHA/EPA. EFA-3 (**Omega-3**) are the precursors to eicosanoids. Sperm contains high levels of DHA, an **Omega 3** fatty acid and DPA an Omega 6 fatty acid. The **Omega 3** fatty acids are known to decrease inflammation. Studies done in boars and other species have indicated that a high ratio of DHA to DPA resulted in enhanced fertility. The lipid composition of the sperm membrane has a significant effect upon the functional characteristics of the spermatozoa.

WHAT ARE EICOSANOIDS?

Eicosanoids are "super hormones" because they affect the synthesis of virtually every other hormone in the body. They are the check and balance system. Eicosanoids are a group of substances *derived* from fatty acids.

Eicosanoids are controlled by dietary fat and insulin. This balance consists of good fats (**Omega 3**) which are the building blocks of 'good' eicosanoids and Omega 6 (Modified Vegetable Fats) which are the building blocks of 'bad' eicosanoids. Utilizing **Evergreen Equine Omega-3** oil will go directly to helping achieve eicosanoid balance. Infertility and reproduction problems come from various problems but one of those is due to an imbalance of eicosanoids.

WHAT ARE PROSTAGLANDINS?

Prostaglandins are signaling molecules that get their message across through multi step signal transaction pathways. They are susceptible to modulation by chemical, hormonal and dietary factors. Dietary fatty acids significantly effect prostaglandin production and have positive effects on the endocrine system producing the hormones for improved reproduction. Prostaglandins may play a role in ovulation and corpus luteum function in the ovaries and in the contraction of the uterus.

BROODMARE APPLICATIONS

Essential Fatty Acids (**Omega 3**) are very beneficial for the mare, a mare in foal and the foals themselves. Due to enhanced hormonal profiles, mares will cycle sooner, more consistently and will get in foal more easily. All the benefits are passed to a foal in utero because the **Omega 3** fatty acids are passed through the breast milk. Essential fatty acids (**Omega3**) must be fed to your broodmares and stallions on an on going basis as it works on a cumulative process. The longer in the system the better the benefits. **Omega 3** has been demonstrated to increase pregnancy rates and sperm production. It has been proven to increase the immune responsiveness through mares fed EFA's **Omega-3** and passed through their breast milk to their foals.

WHY EVERGREEN EQUINE OMEGA 3?

Evergreen Equine Omega 3 is one of the purest high quality clinical grade fish oils available today. It is extremely palatable with its cherry flavor. Horses love the taste. The horse only needs **one ounce per day for pure cellular support**. There are no side effects and there is nothing harmful for the horse. The benefits are overwhelming.

The oil is manufactured according to pharmaceutical standards that ensure quality control and the product is free from lipid peroxides, heavy metals contaminants and other harmful compounds. It contains optimal amounts of natural vitamin E as a preservative. The bottom line is quality and the oil is like a fine smooth silk in texture.