

DHA

For better life, health, (re)production

DHA is essential for life, but good sources are rare. After careful investigation BIVIT discovered a product, applicable in the feed industry. This product, DHA-gold is now incorporated in a whole range of products enhancing animal health, production and reproduction.



What is DHA Gold®?

DHA Gold is a dried, whole cell algae product derived from the micro-organism Schizochytrium that contains 18-22% DHA by weight. DHA Gold is a rich source of omega-3 fatty acids with an excellent stability. The algal DHA is naturally protected from oxidation and preserved by the algal cell wall. DHA Gold is produced via closed pure culture fermentation.

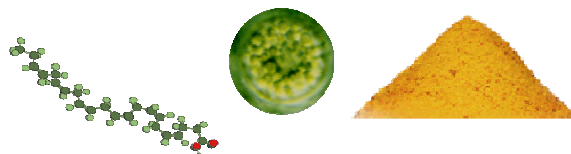


DHA enhancing (re)productive performance

- **Reproductive male animals:** improved sperm production, function and liveability in storage
- **Sows:** improved piglet development, litter size, suckling behaviour, health and growth of the piglets
- **Poultry:** improved development and faster feed intake after hatching
- **Ruminants:** improved suckling latency, time to stand and embryo survival

DHA enriching animal products

- **Adding value** to consumer goods through DHA enrichment of animal products as eggs, meat and dairy products to cater for the health conscious consumer.



DHA (docosahexaenoic acid) is an essential omega-3 fatty acid that provides health benefits for people and animals of all ages. It plays a key role in the early development of children and young animals. DHA is an important building block for, and prevents malfunctions of the central nervous system, the cardiovascular tissue and the eyes. High concentrations of DHA are found in marine sources such as micro-algae and fish. Animals can make DHA out of Alpha-linolenic acid mainly found in green plant leaves and oilseeds like flaxseed. But the conversion process is slow and inefficient. In early life DHA is transferred from mother to child through milk and placental tissues. Because DHA cannot be made from scratch in sufficient quantities external supplementation is recommended. Products supplemented with DHA are commonly used in supplements for pregnant women and baby's. DHA supplementation also has benefits in animal nutrition, such as enhancing reproduction performance and young animal vitality.

EPA (eicosapentaenoic acid) is another important long-chain omega-3 fatty acid. However, unlike DHA, EPA is not stored in significant levels in the body and is not considered as a significant structural part of the body. EPA is found in marine products such as fatty fish.

ALA (alpha-linolenic acid) is a shorter-chain omega-3 fatty acid that serves as an energy source and as a precursor for long-chain fatty acids like EPA and DHA. Green leaves and flaxseeds are rich sources of ALA.

Animal tissues are able to convert ALA into EPA and to very limited extent EPA into DHA. But commonly used feedstuffs as soybean, sunflower, rape, maize, ... have a very unbalanced omega-6 / omega-3 ratio, not promoting the production of DHA in animal tissues.

DHA Gold® versus the alternatives.

Algal DHA:

- High levels of DHA
- Safe, contaminant free
- High stability

Fish oil:

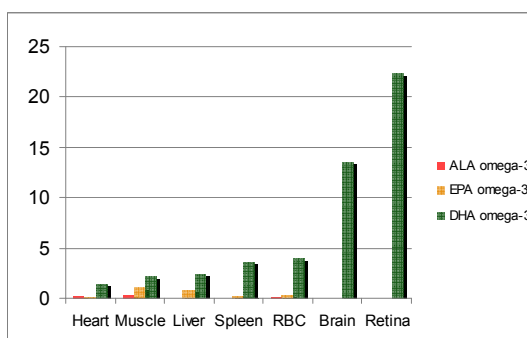
- Less DHA, more EPA
- Limited shelf life
- Not sustainable
- Variable in quality

Flaxseed oil:

- Contains only ALA
- Very limited shelf life

Where does it fit in the BIVIT concept?

Algal DHA is incorporated through the whole BIVIT program. It is found in the standard premixes for gestating and lactating sows, as well as in the premixes for boars and stallions. It is also used in the program for poultry and in special products enhancing the fertility of cows. BIVIT has left behind the philosophy that a certain amount of fish oil or flaxseed is needed in the feed of well performing livestock. Now it is clear that DHA is the key component explaining the assumed efficacy of these products. So why should we add derived products or precursors with low efficacy instead of the natural source of DHA.



For more info:

BIVIT nv
Monnikenwerve 58,
8000 Brugge
Belgium
T +32 (0)50 31 00 86
F +32 (0)50 31 02 61
e-mail: info@bivit.com
www.bivit.com