

NUTRITIONALLY

BETTER NEWS

Breaking Down the Benefits of Omega-3s

Omega-3's are a hot topic the past several years and are commonly referenced in health discussions. But what are they and why should we include them in our diets? Let's break it down for you.

Omega-3s are fatty acids from a specific group of polyunsaturated fatty acids also called PUFAs. There are a wide range of fatty acids, however the main Omega-3 fatty acids that are of particular interest are:

- α -linolenic acid (ALA) which are short chain fatty acids
- eicosapentaenoic acid (EPA) long chain fatty acids
- docosahexaenoic acid (DHA) long chain fatty acids

Of these Omega-3 fatty acids, only ALA is classified as an essential fatty acid as our human body cannot produce this form of fatty acid from existing precursors so it must come directly from our diet. The premise is not to debate the value of any of the three Omega-3 fatty acids noted but to emphasize the importance to the human body as well as for livestock.

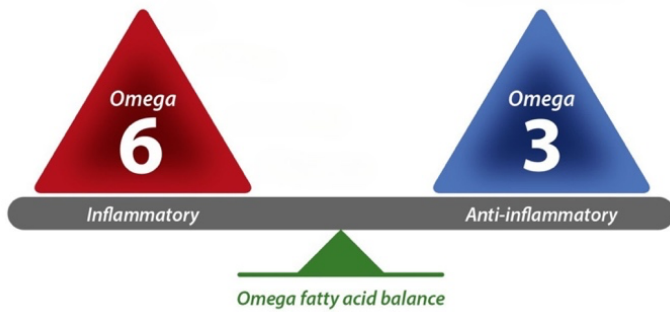


There are four (4) main traits to ALA Omega-3 fatty acids.

1. It is converted to longer-chained Omega-3s like EPA and DHA within the body at different rates, depending on physiological needs.
2. It represents a key source of healthy dietary energy
3. It can be stored in tissues and mobilized for energy or for EPA and DHA production as needed.
4. ALA and Omega-3 are anti-inflammatory PUFA and present numerous health related opportunities.

Why are Omega-3s important?

Typical diets consist of high amounts of Omega-6s which are another polyunsaturated fatty acid which are inflammatory. The issue that arises in typical diets is an imbalance between the two, with Omega-6s far outweighing the Omega-3s. In fact, the Omega-6 to Omega-3 balance from studies show the average North American is consuming a diet that is around to 20:1. That balance should be closer to 4:1 and hence the anti-inflammatory nature of our diets and the negative inflammatory health effects and the opportunity to improve.



We can thank the food processor revolution of the 1960-1970's for this misdirection as North America moved into agriculture industrialization, prioritizing centralized, high yield systems and packaged long shelf-life processed foods.

Omega-3s compete with Omega-6 fats for the same enzymes in the body, as well as positions in cell membranes so too much dietary Omega-6 can interfere with Omega-3 metabolism. This Omega-6

imbalance leads to obesity, cardiovascular disease, Alzheimer, non-alcoholic fatty liver disease and inflammation to name a few.

Omega-3s do the opposite.

The benefits of Omega-3s to humans

Omega-3's benefits are numerous and consist of such things as helping to reduce inflammation, support cardiovascular health, improve cognitive function, and strengthen the immune system.



Support Heart Health



Boost Brain Function and Mental Clarity



Reduce Inflammation



Improve Eye and Vision Health



Enhance Immune System Function



Support Joint and Bone Health



Alleviate Symptoms of IBS and Crohn's Disease



Promote Healthy Skin and Hair



Reduce the Risk of Chronic Diseases Such as Heart Disease and Arthritis

So how do we incorporate a more balanced Omega-3 diet into our food?

An opportunity to improve this imbalance can start with what we feed our livestock. Livestock [cows (beef and dairy), chicken, egg-layers] can achieve an Omega-3 boost in their bodies meat/milk or eggs by increasing the percentage or amount of specific feed ingredients. One such Omega-3-rich feed ingredient source is called linPRO. linPRO's formulation includes one of the world's oldest and healthiest ingredients

- linseed/flaxseed. And because of this inclusion of flaxseed into lin**PRO**, it is an excellent source of ALA Omega-3 fatty acid.



lin**PRO** is made through an advanced patented technology by O&T Farms and was purposely developed for their own egg laying operation which they had since 1967. While flaxseed brings a high volume of Omega-3 anti-inflammatory benefits, its usefulness in its raw (whole seed) format is limited. The hard outer shell of the flaxseed serves a purpose, to protect the unstable (highly oxidative) PUFA Omega-3 fat/oil. That hard outer shell does a great job of protecting the PUFA Omega-3 fat but makes the whole seed difficult to consume and digest. In fact, in its raw format the flaxseed has numerous anti-nutritional effects and can also be associated with HCN (Hydrocyanic Acid), which occurs when the seed becomes wet, which is lethal.

Through O&T Farms patented process, these anti-nutritional effects are removed and the lin**PRO** becomes safe, stable and is highly digestible and a palatable. Incorporating flaxseed into livestock diets via lin**PRO**, we can boost the Omega-3 levels naturally in

eggs, milk or meat while also improve the livestock's health and performance. This widens the options for processors and retailers to provide Omega-3 eggs, Omega-3 enriched chicken, turkey, beef, pork and dairy products.

The benefits of Omega-3's to livestock

Benefits to livestock above the enrichment to food include such things as:

- Optimized immunity
- Maximized reproduction
- Reduced inflammatory conditions
- Improved resiliency to heat stress
- Increased productivity
- Mortality reductions

Specifically, studies done at the Guelph University incorporating lin**PRO** have shown the [benefits to broiler breeder hens](#) improving the health and resilience of their progeny with increased body weight (BW) and reduced feed consumption (FCR) for the progeny. While similar studies on dairy cows done at Penn State and UC Davis CA, using lin**PRO-R** have shown reduced somatic cell counts (SCC) reduced mastitis incidents and improved conception. Health and reproduction performance benefits continue to be discussed, researched and seen throughout the dairy industry.

Feeding livestock this high Omega-3 source from lin**PRO** also achieves healthy benefits that trickle down the food chain. So, humans can have the ability to access nutritionally better and naturally enriched

Omega-3 foods we already consume every day. This is bringing the Omega-6:Omega-3 balance back to our plates, all while still enjoying every day functional foods, we're familiar with and enjoy already.

This is the halo of goodness!



Healthy Feed – Healthy Animal – Health Food

YOUR OMEGA-3 INGREDIENT

Contact us today!