



AGROMEGA

ENHANCED OMEGA 3
ESSENTIAL FATTY ACID SUPPLEMENT

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Essential Fatty Acid Supplement

In nature the pig would consume an extremely wide variety of different things ranging from seeds and roots to insects and animals. This diet would provide all the nutrients necessary for survival and reproduction enabling the pig to thrive.

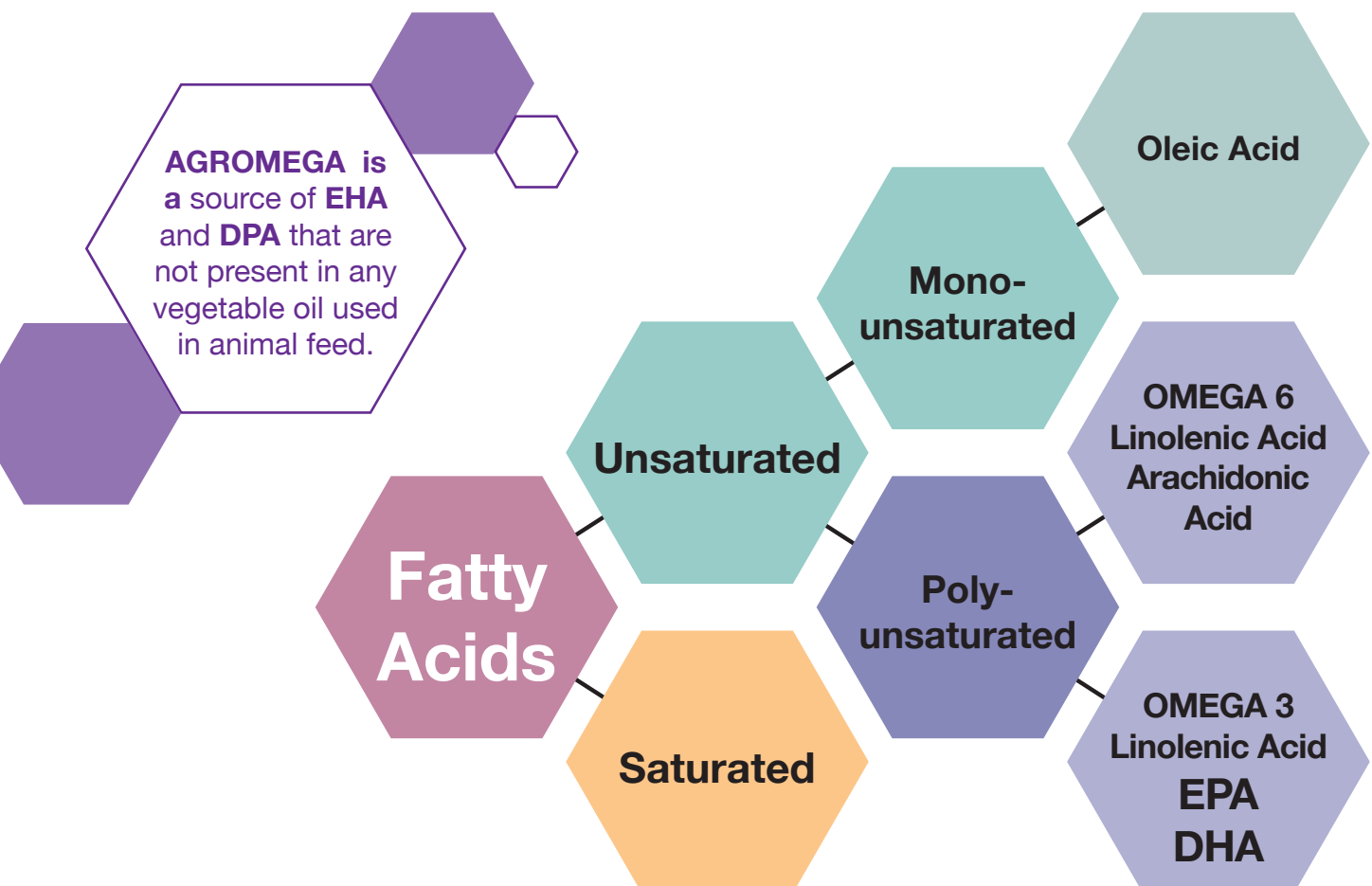
This ideal diet is not reflected in a modern pig production unit where economic and physical factors determine that a very narrow range of ingredients are used in the diet.

The energy level in the feed is another critical factor in feed formulation and this is usually provided by starch from cereals with vegetable oil being added to achieve the necessary energy target. The type of oil used is almost always decided by the price, and very little emphasis is given to the fatty acid profile required to meeting the animal's needs.

The essential omega 3 fatty acids have very important functions in the metabolism, such as in the membrane fatty acid structure, modifying the gene expression and hormone secretion and the pattern of prostaglandin secretion.

A deficiency of the essential fatty acids has a **serious effect on fertility and reproduction, piglet viability** and the **immune systems** of boars, sows and piglets. Providing a supplemental source of these essential omega 3 fatty acids in **AGROMEGA** will help to improve fertility, piglet viability and immunity.

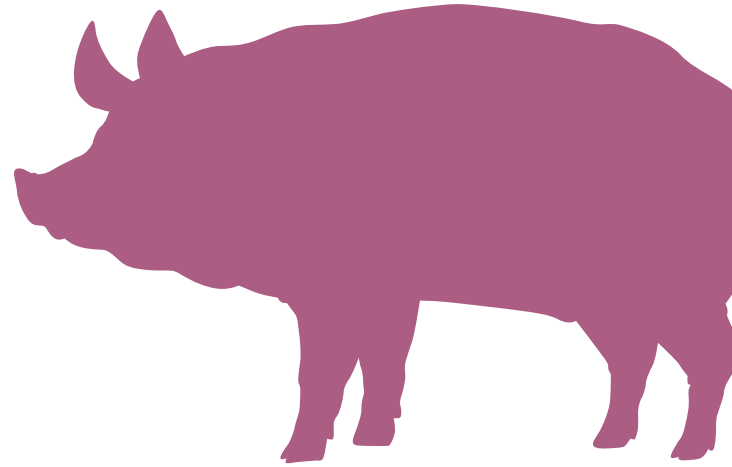
AGROMEGA has been developed to supply supplemental essential fatty acids to pig feeds to **redress the imbalance** between omega 3 and omega 6 fatty acids and to give a supplemental source of the long chain fatty acids **EHA** and **DPA** that are not present in any vegetable oil used in animal feed.



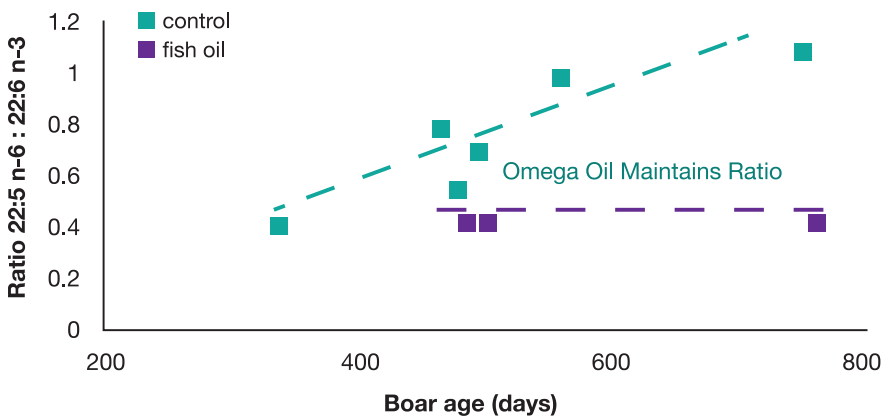
Boar Fertility

Trails have demonstrated that boars given feed supplemented with additional essential omega 3 fatty acids produce semen with significantly higher sperm counts. Those sperm have significantly higher viability and this results in a **significantly higher number of piglets born alive.**

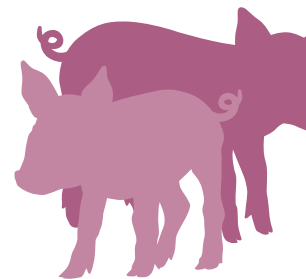
- **Greater amount ejaculate**
- **Higher concentration**
- **Higher amount of doses of semen**



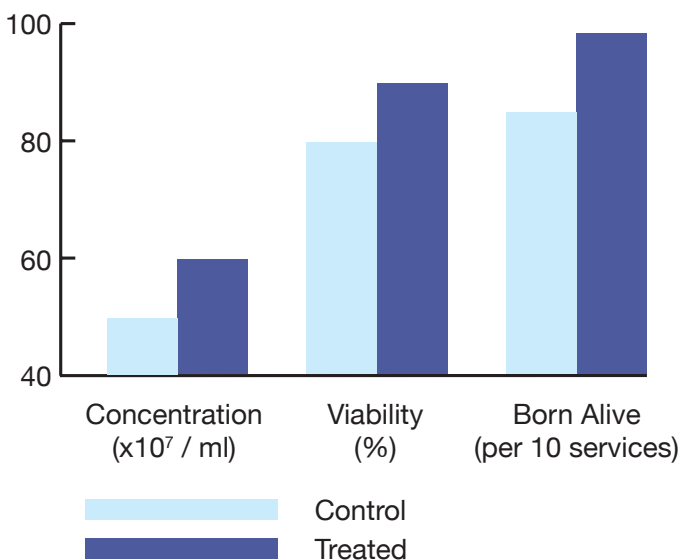
Boar Age Effect on Sperm Omega 6 : 3 Ratio



Omega Oil Maintains Ratio



Essential Fatty Acids Effect on Boar Fertility

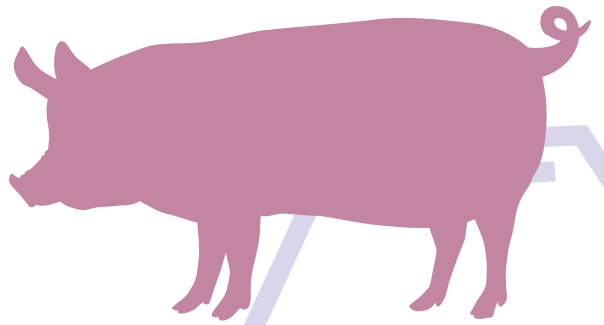


As boars become older they tend to become less fertile. Analysis of the sperm indicate that with aging the ratio of omega 6:omega 3 fatty acids in the sperm increases in favour of the omega 6 fatty acids and coincides with the deterioration of the sperm quality, viability and the reproductive capability of the boars. However **supplementing the feed with long chain omega 3 fatty acids can redress this ratio** and significantly extend the reproductive life of the boar.

Sow Reproduction

Omega 3 fatty acids have the effect of **reducing prostaglandin PGF2a** thus improving maternal recognition of pregnancy. This means a much **higher rate of foetal survival during pregnancy** resulting in **bigger litter size**.

Not only are there more piglets born alive but the viability of the piglets is improved leading to greater number of piglets weaned.



Piglet Development

Omega 3 fatty acids are transferred to the piglet during pregnancy and via the milk. Increases in the supply of these essential fatty acids increases the brain size and activity of the piglets leading to **less losses in the farrowing house caused by crushing by the sow**. The immune systems are enhanced and it has been seen that there is a reduction in growth suppression during a disease challenge.

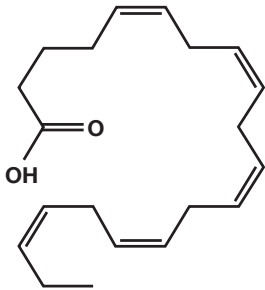
These combined effects on boars, sows and piglets can give 0.5 extra piglet weaned per sow/litter. That has a huge impact on the profitability of a pig breeding operation.



Fatty Acids: Ratio Omega 6 to Omega 3

	LA	AA	LNA*	EPA	DHA	Omega 6 to Omega 3
Corn Oil	60	0.3	1	-	-	60:1
Palm Oil	9.1	-	0.2	-	-	45:1
Soya Oil	54	0.3	7	-	-	8:1
Beef Fat	3	0.2	0.6	-	-	5:1
Linseed Oil	32	-	30	-	-	1:1
Salmon Oil	4	2	2	6	6	3:10

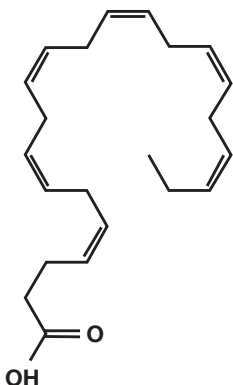
Role and importance of EPA & DHA



EPA is a 20 carbon chain polyunsaturated essential fatty acid that acts as a precursor for series prostaglandin 3. Prostaglandins contain 20 carbon atoms and they have an important role in regulating many functions in the body.

EPA is found in sow's milk and in this way essential fatty acids can be passed to the young piglet to boost the immune system and support its early development.

EPA
Boosts immune system.
Supports early development.



DHA is a 22 carbon chain fatty acid and is a primary structural component of the brain and retina and is the most abundant omega 3 fatty acid in the brain.

DHA is a major fatty acid in sperm meaning that a deficiency of this essential fatty acid in the diet will have a detrimental effect on both sperm quantity and quality. This effect is even more striking in older boars. Supplementing the feed directly with these essential fatty acids will have a beneficial effect on the reproductive performance of sows and boars as well as boosting the immune system and development of baby piglets.

DHA
benefits the reproductive performance of sows & boars



AGROMEGA's combined effects on boars, sows and piglets can give 0.5 extra piglet weaned per sow/litter that has a huge impact on the profitability of a pig breeding operation.

Recommended Inclusion Rates:

As Agromega is on a high absorbent carrier, it comes in an easy to use powder form.

Pregnant sows: 10 kg/t feed

Lactating sows: 6 kg/t feed

Boars: 10 kg/t feed

Packaging:

20kgs



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