

Project	
Objective	Research clipping for social-media publication
Target group	Public audience, consumers
Title	Egg Yolk as a Source for Omega-3-Fatty acids

The project PATHWAY-27 is dedicated to the examination of bioactive compounds and their impact on consumers' wellbeing. For the research activities a set of food enriched with bioactives (BEF) has been developed, which is currently used in intervention studies.

The bioactives examined in the course of PATHWAY-27 are beta-glucan (fibre from oats), anthocyanins (water soluble vegetable pigments) and docosahexaenoic acid (DHA, omega-3-fatty acid). The BEF have been formulated with ingredients containing the bioactive compound. In the case of the omega-3-fatty acid, egg yolk enriched with DHA has been added to the food product.

ASL-Lipides, French based business with long-term experience in the enrichment of egg products and the biochemistry of fatty acids is the provider of the eggs used for the production of BEF.

The accumulation of DHA in the egg yolk has been optimised using different feed stocks for the laying hen. Research has also been done into the biochemistry of the fatty acids, which is crucial for the bioavailability and the desired effect on health and wellbeing, which shall be achieved including DHA into the diet.

From a nutritional point of view, egg yolk enriched in DHA is can be considered as the best source for DHA for the following reasons:

1. DHA is mainly found in the form of phospholipids-DHA and this is the most bio-available form of DHA for human body.
2. Phospholipids with their chemical structure act as natural antioxidants.
3. DHA/arachidonic acid (AA) are found in a ratio similar to that found in the human body.
4. egg yolk DHA-phospholipids (GPL-DHA®) has the status of novel-food, novel-ingredient since 2010 from the EC and this status allow the use of this ingredient in the nutritional applications in the EC.

The development of BEF was challenged by the sensory properties of DHA. Due to its fish taste the enrichment is limited to a palatable amount of the unsaturated fatty acid. The pancakes developed are currently successfully used in the Large Intervention Study in the course of the PATHWAY-27 activities.

For more information about the current project visit <http://www.pathway27.eu/>

