

# Animal nutrition.

## Why should antioxidants be used?

Some ingredients used in feed preparation, due to their chemical nature, are very susceptible to oxidative degradation.

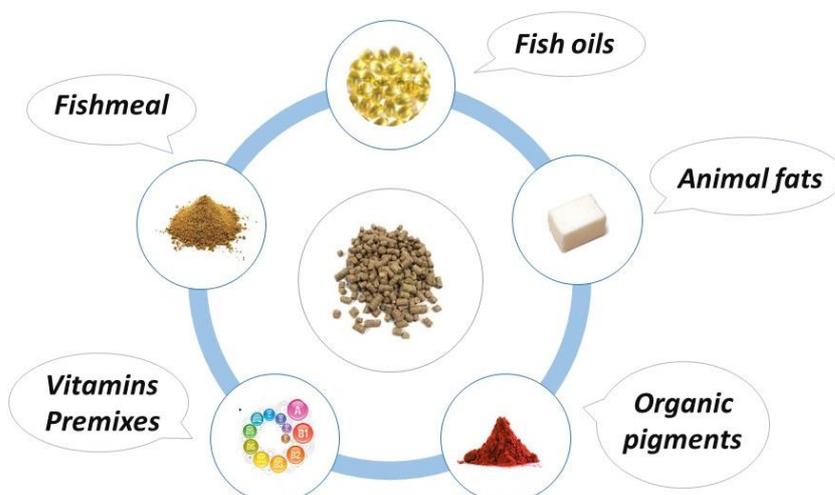
Oxidation of these substances has undesirable consequences on feed quality such as:

- Ingredients **degradation**.
- **Loss of caloric content** in the raw material.
- Presence of **toxic substances**, which affect animal health and welfare.
- **Loss of palatability** and therefore loss of appetite and weight loss of the animal.
- **Lost** in the animal **daily intake** leading lost in animal productivity.
- Significant **business losses**.

For this reason, the protection of feed ingredients with antioxidants is essential to:

- ✓ Ensure the correct nutrition of the animal.
- ✓ Keep in good conditions the ingredients and final feed
- ✓ Prevent colour fading and flavour changes of the ingredients
- ✓ Maintain the nutritional value of the feed.

### Which feed ingredients should be protected and why?



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## **FISHMEAL.**

Fishmeal is a protein-rich extract. Its composition usually includes; proteins (60% - 72%); fats (6-12%); vitamins and minerals.

Fishmeal proteins present in the structure essential amino acids such as methionine, cysteine, lysine, threonine & tryptophan which prevent malnutrition, immunodeficiency, and slow grow factors.

## **FISH OILS.**

Fish oil are lipids obtained from the processing of fishery by-products. (fishmeal and fish silage).

These lipids contain valuable omega-3 fatty acids, especially EPA & DHA fatty acids. EPA contributes to anti-inflammatory processes. DHA plays an important role in the structure of cell membranes.

## **ANIMAL FATS.**

Animal fats are lipids derived from the processing of animal by-products (rendering industry).

These fats are generally solids at room temperature and are mainly composed of triglycerides. Fats are the main source of energy and act as flavour enhancers.

## **VITAMINS PREMIXES.**

From the retinol (A) to biotin (B7), they all need to be protected to be ensure their availability.

Vitamins are essential micronutrients for the proper functioning of metabolism.

## **PIGMENTS.**

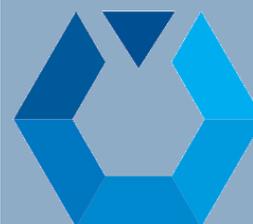
Some examples of carotenoids are lutein (yellow), astaxanthin (red), capsanthin (red), zeaxanthin(orange).

Pigments are organic compounds extracted from natural raw materials and are used to enhance color, but may also be involved in other metabolic processes, such as axanthaxanthin, which is a cellular antioxidant.

For more information on the FEED PRODUCT LINE, please visit our PRODUCTS SECTION.

<https://oxirischemicals.com/feed-and-food/>

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