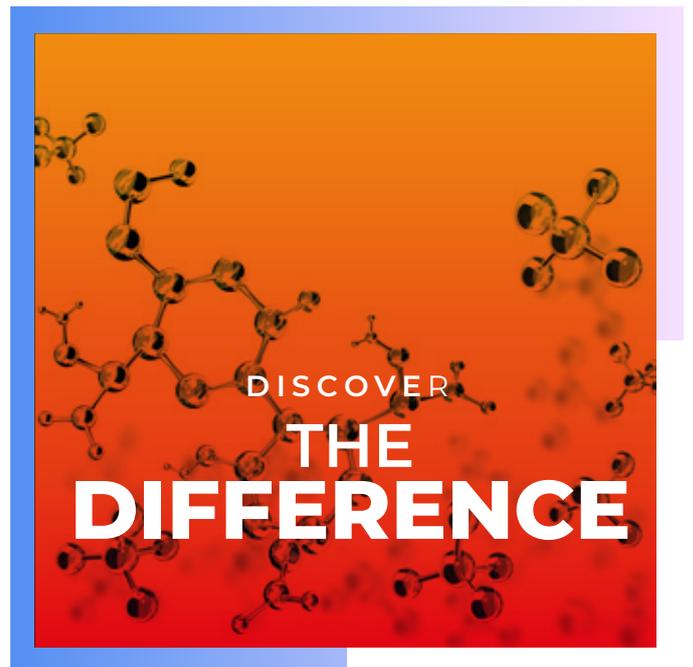


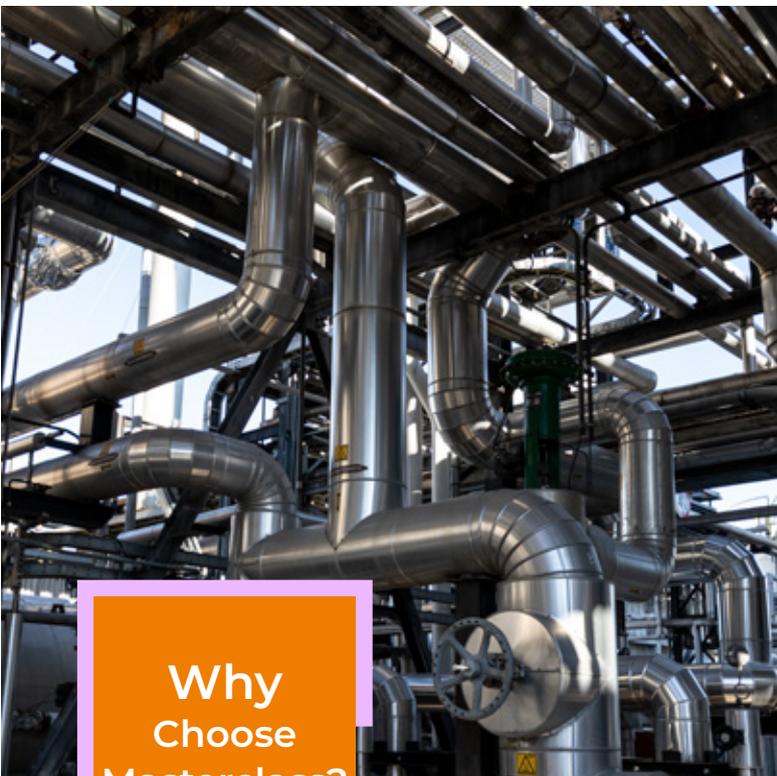


YOUR NATURAL PARTNER



CFS Europe: empowering consulting

Interacting masterclass,
how consultancy can
make difference



Why Choose Masterclass?

Just as in a Masterclass, choosing CFS Europe means you're in **CONSTANT INTERACTION** with seasoned consultants and experts. Our goal is to provide advice and solutions to improve the shelf-life and performance of your products.

In the spirit of a **MASTERCLASS**, CFS Europe is always attentive, striving to understand the unique needs of each company. We build relationships based on constant exchange, with the goal of providing dedicated and customized antioxidants solutions.

Moreover, as in a Masterclass, CFS Europe doesn't merely see client challenges as a supplier would do. Instead, we approach them as a consultant and dependable partner, dedicated to addressing shared objectives.

THE **SCIENTIFIC APPROACH** is fundamental, but it is the strong human connection that sets us apart. We work alongside our clients, with the goal of being a valuable resource for every company.



R&D & LAB Excellence in innovation and application

Shelf-life solutions customized just for you

For more than 25 years, Camlin Fine Sciences has been providing shelf life solutions to the food, petfood, animal feed and rendering industries.

Our Customer Application Laboratory is here to help. CFS has the most combined antioxidant experience in the industry and can create the tailor-made solution you want with the high-quality support you need.

LAB TESTING CAPABILITIES

OXIDATIVE BY-PRODUCTS TESTING:

Various methods are employed to quantify primary and secondary oxidation by-products including peroxides, aldehydes, alkenals, TBA's, and free components acids.

QUANTIFICATION OF ACTIVES:

HPLC (High Performance Liquid Chromatography) and GC (Gas Chromatography) are utilized to quantify active compounds in antioxidants such as TBHQ, BHA, BHT, Propyl Gallate, Ascorbyl Palmitate, Citric Acid, Total Phenolic Diterpenes, Ascorbic Acid, Catechins, and Mixed Tocopherols.

ACCELERATED OR REAL TIME SHELF-LIFE EVALUATIONS:

Storage chambers allow for the acceleration of food product oxidation, facilitating the evaluation of oxidative by-products over time (e.g., 12 weeks). Refrigerators and freezers are also used for ongoing shelf life assessments.

RELATIVE SHELF LIFE DETERMINATION:

Instruments like the Rancimat and Oxitest are employed to compare the performance of different antioxidants or treatment levels in a dose-response scenario. These instruments provide data to determine the relative shelf-life of food products.



WHAT'S INSIDE MAKE THE DIFFERENCE



Shelf-life Solutions

Antioxidants
and Natural Extracts

SHELF-LIFE SOLUTIONS More solutions, better values.

Oxidation is a primary concern to food, pet food, aquafeed, premix and animal feed manufacturers.

Rancidity, off-flavors, discoloration, palatability loss, and destruction of essential fatty acids and nutrients are some of the consequences of lipid oxidation.

KEEP YOUR PRODUCTS FRESH, NUTRITIOUS, AND TASTY FOR LONGER

Many factors affect the shelf-life stability of rendered pet food ingredients, including heat, oxygen, pH, moisture, presence of metal ions and unsaturated fats, oxidizing and reducing agents, process conditions and storage time, among others.

Acting using antioxidant ingredients in petfood formulations means ensuring better product stability and palatability.

ACT EARLY!

There are numerous benefits to quick response with antioxidant protection; animal nutrition protection has to begin much before it reaches the manufacturing plant.

Manufacturers of livestock feed and pet food rely on rendered products: one of the biggest challenges with rendered products are maintaining its consistency and quality.

Animal co-products such as poultry meal, fish meal or meat and bone meal have a major impact on the stability and freshness of petfood ingredients are of utmost importance to the rendering industry and the petfood producers.

The delay in the onset of oxidation is achieved through good management practices, quick product turnover and the judicious application of antioxidants early in the rendering process. Camlin Fine Sciences (CFS) provides you with an entire range of shelf life solutions to choose from. And with new challenges each day, we could support you with practical customized solutions.

At CFS, we have two lines of antioxidants for the rendering industry, traditional (Xtendra®) and natural (NaSure™) to protect the oxidative stability of your rendered pet food ingredients.

NaSure™

natural protection & safety solutions

NaSure™ Antioxidants

- Mixed tocopherols
- Rosemary extract
- Other natural plant-based extracts & natural blends

With trends in pet food closely aligned to those in human food, natural shelf-life solutions are preferred by certain manufacturers other than traditional antioxidants. Natural antioxidants like rosemary or mixed tocopherols are natural sources used to preserve foods.

Depending on the characteristics of the final product there are different formulas and concentrations that are ideal for a wide range of preparations, from standard to super premium. Ask our expert for the CFS solution that is right for your pet food.

ANTIOXIDANT APPLICATIONS



FRESH MEAT, PROCESSED MEAT, POULTRY



PROCESSED FOOD, SNACKS, NUTS, CEREALS



FATS, OILS



SPICES



PETFOOD, PETFOOD INGREDIENTS



DRESSING, BRINES, MARINADES

BENEFITS

- Natural
- Extending product shelf-life
- Securing quality and prevention of rancidity
- Effectively protecting palatability, essential fatty acids, colour pigments and vitamins
- Purified extracts highly suitable for animal nutrition applications
- Optimized for specific systems
- Enhanced antioxidants distribution using liquid or dry delivery systems

CFS ANTIOXIDANTS for animal nutrition products in Europe

PRODUCT	FORM (OS: oil soluble Dry: powder)	COOKER RENDERING	OILS & FATS	MEAL	FISH MEAL	PET FOOD	PREMIX	AQUAFEED	BHA	BHT	PROPYL GALLATE	CITRIC ACID	ASCORBYL PALMITATE	MIXED TOCOPHEROLS	ROSEMARY EXTRACT	VEGETABLE OIL	SILICA / DRY CARRIER	PE GLYCOL	EMULSIFIER
		APPLICATION							COMPOSITION										
Nasure 551	OS Liquid	✓	✓	✓	✓	✓		✓						✓	✓	✓			✓
Nasure 552	OS Liquid	✓	✓	✓	✓	✓		✓						✓	✓	✓			✓
Nasure 563	OS Liquid		✓	✓	✓	✓		✓						✓	✓	✓			✓
Nasure 564	OS Liquid		✓	✓	✓	✓		✓						✓	✓	✓			✓
Nasure 572	Dry (fine)					✓	✓	✓				✓		✓	✓	✓		✓	✓
Nasure 580	Dry (fine)					✓	✓	✓				✓		✓	✓	✓	✓		✓

Xtendra®

protection & safety solutions

Traditional Antioxidants Solutions

From straights to blends, CFS gives the formulator the ability to use customized solutions to achieve even the most difficult shelf-life requirement. Look to CFS for TBHQ, BHT, Propyl Gallate and Ascorbyl Palmitate based solutions.

Our range of traditional Xtendra® antioxidant solutions are highly effective in providing the necessary stability. They are approved and safe to protect the nutritional value of food and feed products.

ANTIOXIDANT APPLICATIONS



PROCESSED MEAT



SNACKS, NUTS



FATS, OILS



BAKERY MIXES



SPICE BLENDS

BENEFITS

- Extending product shelf-life
- Securing quality and prevention of rancidity
- Effectively protecting palatability, essential fatty acids, colour pigments and vitamins
- Cost-effective solutions
- Optimised for specific systems
- Enhanced antioxidant distribution using liquid or dry delivery systems
- Synergistic antioxidant activity
- Replacing ethoxyquin

CFS ANTIOXIDANTS for animal nutrition products in Europe

PRODUCT	FORM (OS: oil soluble Dry: powder)	COOKER RENDERING	OILS & FATS	MEAL	FISH MEAL	PET FOOD	PREMIX	AQUAFEED	BHA	BHT	PROPYL GALLATE	CITRIC ACID	ASCORBYL PALMITATE	MIXED TOCOPHEROLS	ROSEMARY EXTRACT	VEGETABLE OIL	SILICA / DRY CARRIER	PE GLYCOL	EMULSIFIER
		APPLICATION								COMPOSITION									
Xtendra 510	OS Liquid	✓	✓	✓	✓	✓		✓	✓	✓						✓			✓
Xtendra 516	OS Liquid		✓					✓	✓		✓	✓						✓	
Xtendra 518	OS Liquid	✓	✓	✓	✓	✓		✓	✓							✓			
Xtendra 525	OS Liquid	✓	✓	✓	✓	✓		✓	✓							✓			
Xtendra 527	Dry (fine)			✓	✓	✓	✓	✓	✓	✓		✓				✓	✓		
Xtendra 528	OS Liquid	✓	✓	✓	✓	✓		✓	✓							✓			
Xtendra 532	Dry (fine)					✓	✓	✓	✓							✓	✓		
Xtendra 589	OS Liquid		✓	✓		✓		✓					✓	✓		✓			✓

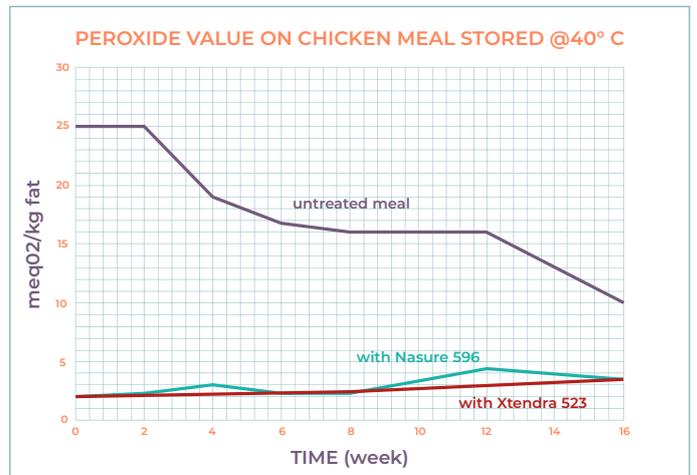
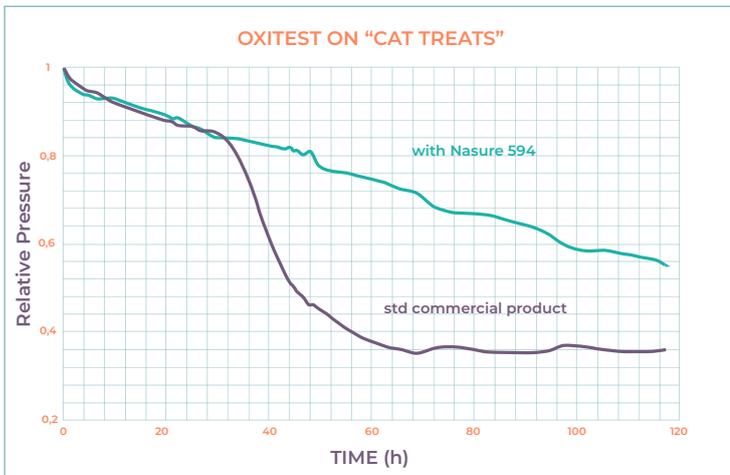
NaSure™ RE

From NATURE'S surest

Rosemary's Antioxidant Solutions

Rosemary, a fragrant herb rich in iron, calcium, and vitamin B-6, offers antioxidant benefits. In addition to its antioxidant property, the extracts from rosemary is known for potential health benefits.

NaSure™ RE, with high carnosic acid content, provides strong antioxidant properties without odor or color. The raw materials are analyzed for selected breed identity, active components, contaminants and safety. And ensure a global product excellence, with thorough analysis for safety.



TRUST THE PROCESS

Oxidation of livestock feed:
antioxidants are the NATURAL answer.

NaSure™ Xtendra™
protection & safety solutions

Food oxidation level
WITHOUT ANTIOXIDANTS

Food maintenance level
with NASURE and XTENDRA





Sustainability

GOOD CHEMISTRY

As “good chemistry” ambassadors, we prioritize eco-friendly innovation and value people and resources in our daily commitment.

ENERGY

Our dedication to sustainable energy solutions promotes the transition to clean and renewable sources.

RESEARCH

Our commitment to sustainable research fosters eco-friendly practices and innovative, customized solutions for a greener future.

NATURE

As environmental custodians, we’re dedicated to preserving and restoring ecosystems while minimizing our impact through respectful initiatives.



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