



L A Y I N G   H E N S   A N D   B R E E D E R S

Natural solution for oxidative  
and intestinal balance

MADE IN  
FRANCE



# NATURAL SOLUTION FOR OXIDATIVE AND INTESTINAL BALANCE

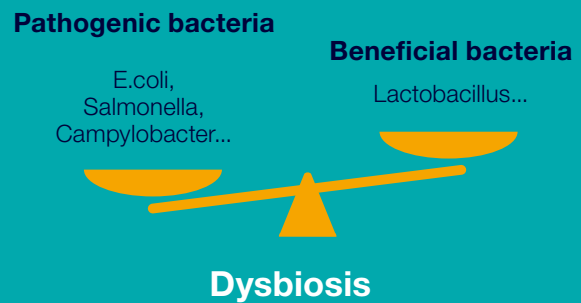
Throughout its production cycle, laying hen is exposed to different sources of physiological, environmental or nutritional stress. To defend itself, laying hens have endogenous or exogenous antioxidants (obtained through feed). Strong correlations have been demonstrated between different metabolic, infectious or inflammatory diseases and an antioxidant deficit. This deficit, called oxidative stress, is associated with an increase in oxidative phenomena (lipid peroxidation, oxidation of proteins...) inducing a weakening of the intestinal mucosa, an alteration of the intestinal microbiota balance and a degradation of eggs quality.

## STRESS FACTORS

- **Breeding conditions:** transport, building, high density, heat stress, dietary change, feed quality...
- **Metabolic and infectious diseases** (virus, salmonella, fatty liver hemorrhagic syndrome)
- **Internal and external parasites** (coccidiosis, red mites, intestinal worms)
- **Mycotoxins**
- **Antibiotic treatments**



### Imbalance of oxidative balance



### Dysbiosis

## NEGATIVE IMPLICATIONS FOR

- **Nutrient absorption**
- **Consistency of droppings (wet dropping)**
- **Digestive efficiency**
- **Egg quality** (shell, vitelline membrane, Haugh unit)
- **Laying rate**
- **Fertility / hatchability**
- **Immunity**

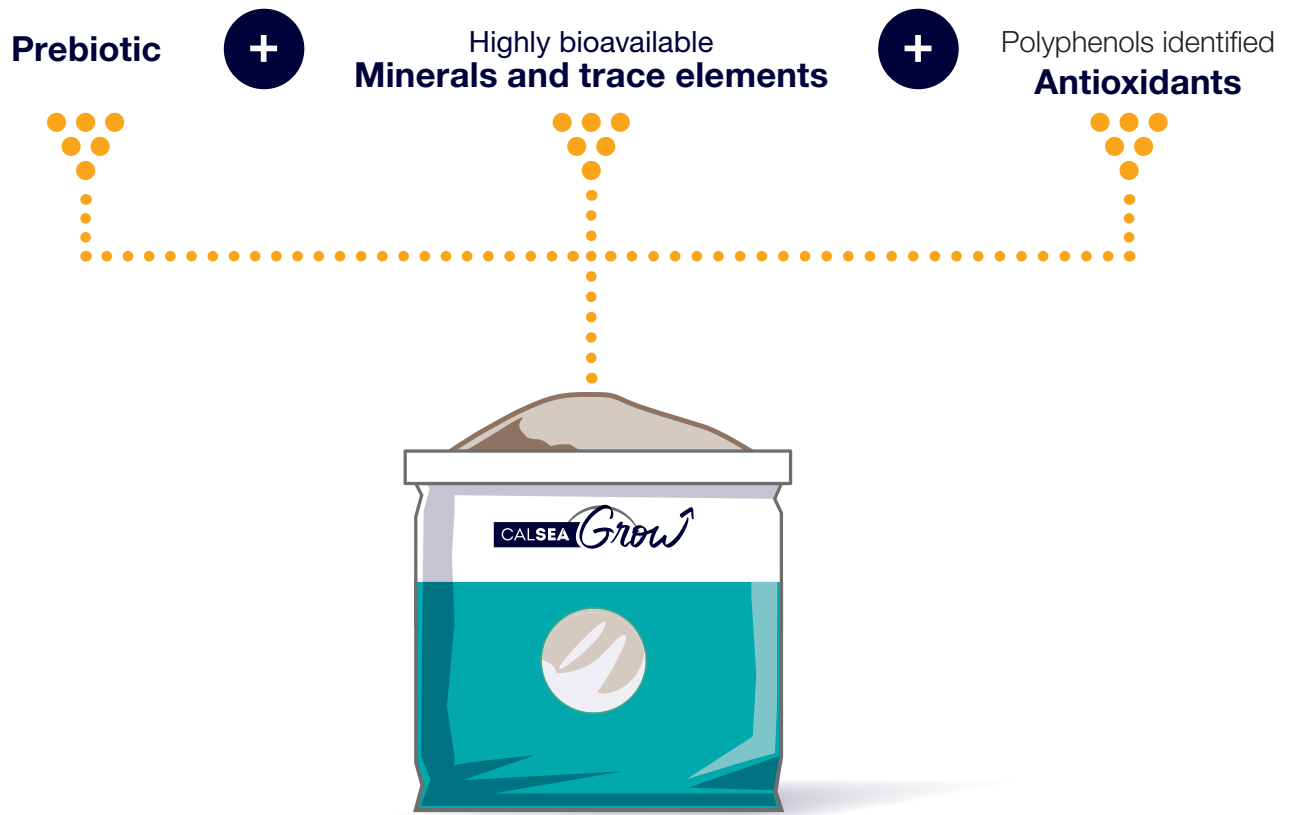
## NATURALLY STIMULATING PERFORMANCE AND IMPROVE THE QUALITY OF EGGS THROUGH THE BENEFITS OF THE LAND AND THE SEA

The unique composition of CALSEAGROW results from the synergy between a **plant extract** and a slowly calcified **alga** combined with the industrial know-how of NUWEN.

CALSEAGROW is the natural source of a multitude of **antioxidants** and a differentiating **prebiotic**, with proven efficacy. It optimizes the zootechnical performance of laying and reproductive hens, reduces the impact of oxidative stress and improves eggs and hatching eggs quality.

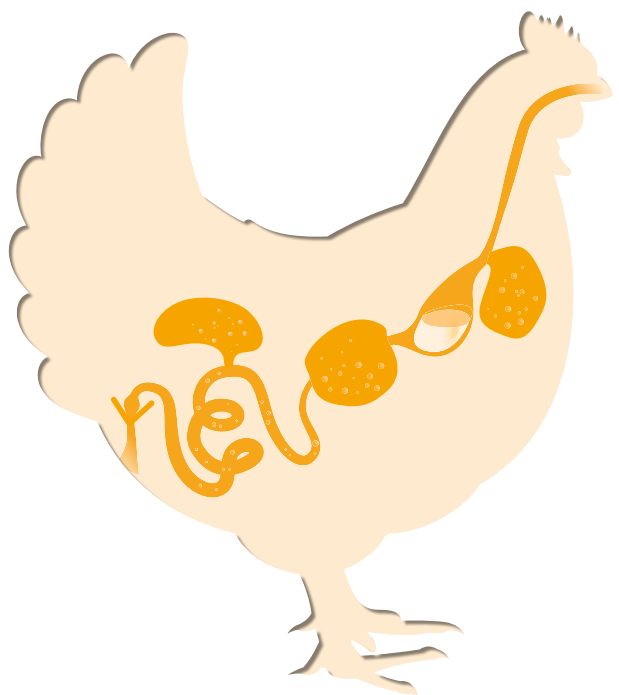
Its micro-granulated innovative form makes it a homogeneous product, easy to incorporate (1 kg per ton) and approved for organic farming.

# SYNERGY FOR A BETTER OXIDATIVE AND MICROBIOTA BALANCE



## CALSEAGROW IS A RICH SOLUTION IN IDENTIFIED ANTIOXIDANTS (POLYPHENOLS) AND DIFFERENTIATING NATURAL PREBIOTICS (POS) FOR:

- **Develop a supply of antioxidants** contributing to maintaining the balance of oxidants and antioxidants
- **Stimulate beneficial bacteria and inhibit the adhesion of pathogenic bacteria.** This participates in rebalancing the intestinal microbiota.
- **Improve the quality of eggs (rigidity of the vitelline membrane, Haugh unit) and the rigidity of tibia**
- **Improve zootechnical performances** (FCR, animal's homogeneity)



# IMPROVING ZOOTECHNICAL PERFORMANCE AND EGG'S QUALITY

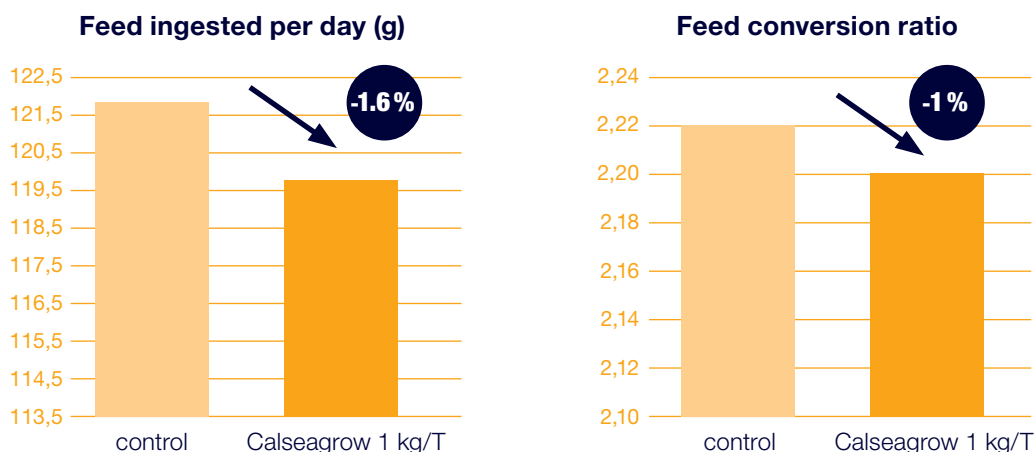
To assess the impact of CALSEAGROW on zootechnical performance and laying hens eggs quality, a test was carried out on 576 hens divided into 2 groups (Control vs Supplemented by 1 kg / T of CALSEAGROW) with 12 repetitions per modality.

The experimental phase started week 69 and lasted 10 weeks.

Production data were collected during the entire test period (feed consumption and egg production). The eggs quality parameters were measured in the middle and at the end of the test (egg weight, Haugh units, vitelline membrane resistance, antioxidant potential).

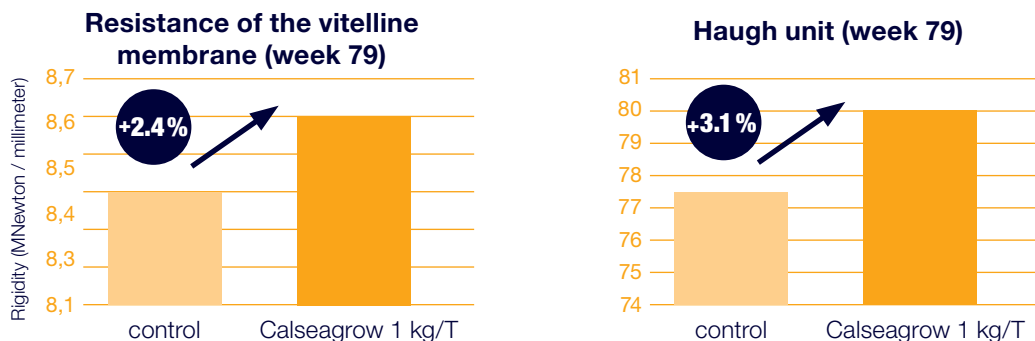
This test was carried out on laying hens (NovoBrown) whose performances are 2% to 3% above the Novogen standard.

## ZOOTECHNICAL PERFORMANCES



These results show a decrease in the amount of feed ingested by -1.6% and an improvement in the FCR (-1%), **while maintaining egg laying rate and egg weight**. Thanks to its richness in prebiotic (pectic oligosaccharides (POS)) and antioxidants, CALSEAGROW acts on the intestinal microbiota thus improving **feed efficiency**.

## QUALITY OF EGGS



According to the scientific literature, antioxidants reduce the oxidation of lipids and proteins. Thanks to its identified antioxidants, CALSEAGROW improves the rigidity of the vitelline membrane by 2.4% and the Haugh units by 3.1%. This allows:

- An extension of layer production cycle (interest for egg producers)
- A better development of the embryo (interest for hatcheries)
- A better separation of egg white and egg yolk (interest for Processed Egg Stations)



## A NATURAL PRODUCT RESPECTFUL OF THE MAN AND THE ANIMAL

USABLE IN  
ORGANIC FARMING

CALSEAGROW is a **natural** solution, **usable in organic farming**, proposed by our experts to boost your results in respect of the human being, the animal and the environment.

## EASY TO INCORPORATE

MICRO-GRANULE

Thanks to NUWEN's industrial know-how, CALSEAGROW was conceived for laying hens producers.



Promotes the  
homogeneity of the  
product and limits the  
clogging and dust risks



Resists to granulation  
processes and to high  
temperatures



Easy to incorporate  
(1 kg/T)

## INNOVATION IS AT THE HEART OF OUR DEVELOPMENT

The NUWEN R&D center is constantly seeking innovation thanks to its solid **human and material resources**. Working with partnerships from several international organizations, the animal nutrition R&D center runs **field trials** to satisfy the requirements of manufacturers and farmers.



**5000 m<sup>2</sup>**  
dedicated to innovation



**120**  
collaborators  
dedicated to innovation



**15**  
nationalities

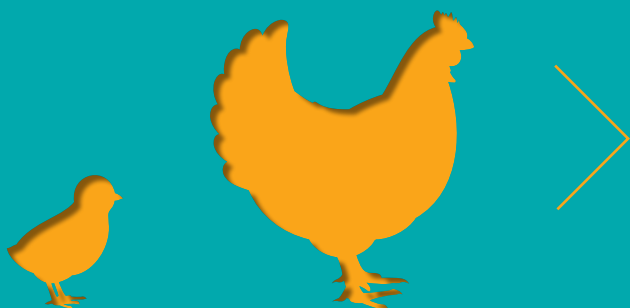




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## When and why use it?

**CALSEAGROW is recommended:**



- **During the second half of the production cycle**
- **At the start of laying and for 5 weeks**  
(if necessary to accompany the start of the flock).



The recommended dose is **1 kg/ton\*** of final product  
\*2 pounds/ton