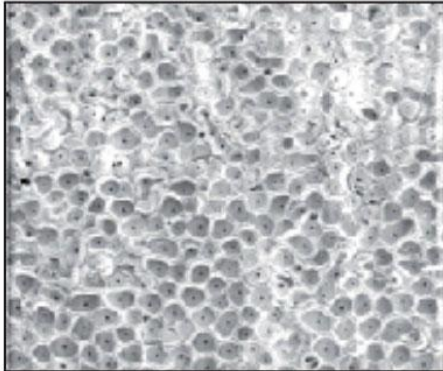


 **CELTIMIN**

*A Super Natural Physique!*



## A Totally Unique Natural Raw Material



CeltiMin is derived from marine algae and is a completely natural product that absorbs minerals and nutrients from seawater, growing into a hard, brittle, coral-like structure with a high mineral and trace element content.

Having grown in the sea, CeltiMin is insoluble in water. However, its honeycomb structure means that it has a large surface area making it soluble – over a period of time – in the digestive tract of poultry so that it acts as a slow-release source of calcium. Offering the potential in poultry diets to build stronger shells and bones.

This is very important for birds in lay as it means they have a constant calcium content circulating in the blood stream while the egg is in the shell gland. As CeltiMin is dissolved in the stomach of the bird, it releases not only calcium, but also magnesium and other trace elements that are helpful for shell formation.



### Why use CeltiMin?

While CeltiMin contains a high proportion of calcium, unlike other calcium sources it also contains many other minerals and trace elements, all of which are important for the health and vitality of the bird. However, it is the form in which these minerals and trace elements are available that makes CeltiMin so special.

Normally these substances are added in an inorganic form: as a result, their bioavailability is much lower compared to the chelated form in which they occur in CeltiMin. Therefore, while the quantities of minerals and trace elements may be small, their effects are large because they are in a form the bird can use directly.

### Typical Composition\*:

CeltiMin is a rich source of calcium and 72 other macro and micro elements:

Moisture	≤	5%	Magnesium	Mg	2.20%
Ash	≥	95.00%	Phosphorus	P	0.03%
Calcium	Ca	32%	Sodium	Na	0.6%

\*Its exact and precise constituents may vary due to it being a naturally occurring product

### Usage and Administration

*Formulation for performance:*

Q Poultry Breeders, Layers, Broilers and other poultry: 5.0kg per metric ton

*Farm top dressing to deal with eggshell quality and under stress situation:*

Q Farm top dressing for poultry breeders and layers: 5.0kg per metric ton

Continuously add and thoroughly mix in a complete ration and/or premix is essential to avoid localized concentrations. CeltiMin is compatible with commonly used ingredients in feed.



# Research

## UK Commercial Trial (2007)

Trial involved 120 Isa-brown and Lohmann laying hens at 50 weeks.

4 different dietary treatments were evaluated:

- Base diet (1% Calcium)
- Base diet +2.5% Limestone
- Base diet + 1.5% Limestone
- Base diet + 1.5% CeltiMin

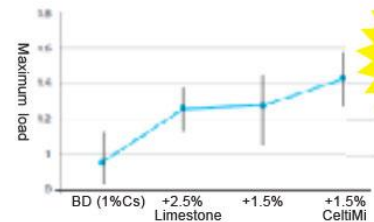
Parameters recorded:

- Egg numbers per pen
- Egg weight and breaking strength



weeks)

Eggshell breaking strength (KgF)



### Conclusions:

CeltiMin inclusion optimised egg production from hens over 50 weeks in lay.

CeltiMin also increased egg shell strength.

## Thailand Trial (2015)

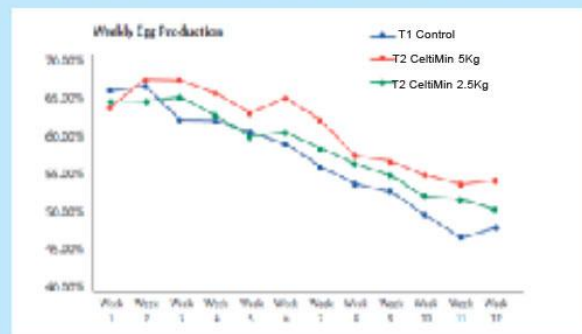
The effects of CeltiMin on performance of layer hens in tropical environments were evaluated in this trial.

576 Lohmann Brown-Classic hens at 63 weeks of age were evaluated for egg productivity and egg quality. 3 treatments were evaluated;

T1 Conventional diet, T2 Diet with 5kg/t of CeltiMin to replace 5kg/t of Limestone, T3 Diet as Control plus 2.5kg/t of CeltiMin as top-dressing/add-on

### Conclusions:

Productivity was maintained at a much higher level when laying hens were fed CeltiMin



## Bio Resources, S. Korea (2005)

### Calcium Balance

	Feed Intake (g/day)	Excreted Ca (g/day)	Ca Retention (%)
CeltiMin	130	0.62	47
Limestone	132	0.71	40

**Conclusion:** Calcium retention increased by 17.5% at similar intake levels in laying hens

### Eggshell Thickness

	Control <sup>1</sup>	0.5% <sup>2</sup> CeltiMin	1% <sup>3</sup> CeltiMin
Before	416.6	398.2	408.4
14 days after	425.3	444.3	451.2
Change	+8.7	+46.1	+42.8

**Conclusion:** Inclusion of 0.5% CeltiMin resulted in a 37% increase in eggshell thickness over control.

### Bone Calcium Content

	Control <sup>1</sup>	0.5% <sup>2</sup> CeltiMin	1% <sup>3</sup> CeltiMin
Calcium	24.41	25.45	27.04
Phosphorus	24.95	25.18	23.67

**Conclusion:** The inclusion of CeltiMin led to a dose related increase in bone calcium



# CELTIMIN

*A Super Natural Physique!*

## ***CeltiMin for Improved Shell Quality and Strength***

- *CeltiMin is a highly bioavailable calcium source for enhanced feed efficiency, bone strength and shell strength for poultry*
- *CeltiMin is ideal for commercial layer operations, as well as layer and broiler breeders*

## ***Features of CeltiMin***

- *Highly bioavailable natural form of 'slow release' calcium for laying hens and other poultry*
- *Particle size of 100% <250 microns can aid with physical retention in digestive track for the consistent supply of calcium for egg shell formation and biological functions*
- *Useful source of over 70 other trace elements in a more biologically available form for poultry*

## ***Benefits of CeltiMin***

- *Improved egg shell quality*
- *Reduced cracks in eggs and more saleable eggs*
- *Improved egg production*
- *Improved feed efficiency for layers and broilers*
- *Improved bone strength*
- *Improved general wellbeing of the flock*
- *Improved body weight gain and carcass quality of broilers*



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