





SEACALMIN

Dry granular Irish calcified seaweed DIRECT FROM THE SEA TO THE SOIL The natural way to enrich your soil!

1. PRODUCT DESCRIPTION

Seacalmin seaweed is a completely natural product harvested off the South West coasts of Ireland and Iceland. **Seacalmin** rapidly absorbs minerals and nutrients from seawater, growing into a hard, brittle coral-like structure with a high mineral and trace element content.

Seacalmin offers the potential to cut fertiliser costs and significantly improve plant uptake of nitrogen (N), phosphorus (P) and potassium (K).



2. PRODUCT SPECIFICATION

Application : Mineral source of soil

Physical aspect : Light grey, granular material

Composition : Lithothamnium sp.

Physical state Granules Particle size < 2mm **Bulk density** 1 g/ml Calcium (atomic absorption) min. 28 % Magnesium (atomic absorption) min. 2.5 % Chloride (potentiometric) 2 - 3 %Ash (S.I 200 1984, 550 P°C) 95 % Moisture (S.I 200 1984, oven drying 105° C): < 5 %

Heavy metals : conforms to EC legislation

Note: the values listed above are typical. Seacalmin is a natural product of marine origin and as such, is subject to seasonal variations.

3. HOW DOES SEACALMIN WORK?

Seacalmin is supplied in dry, granular form, but its inherent honeycombed coral-like structure is an ideal habitat for soil bacteria. Following application, bacteria quickly colonise its structure and, once established, start to break down – releasing calcium, magnesium and trace elements.

The increase in bacterial activity contributes to a better soil structure, which in turn helps plants develop a stronger root system. The improved soil structure – allied with a more active root system – enables plants to utilise the minerals already present in the soil and take advantage of the trace elements released from **Seacalmin**.



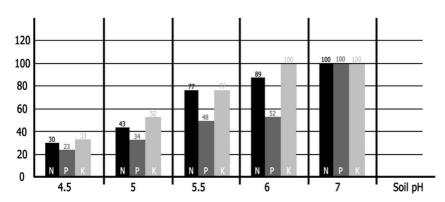
4. CORRECT ACIDIC SOILS

Soils are becoming increasingly acidic due to increased applications of slurry and nitrogenous fertilisers, such as urea, which contribute to the faster removal of calcium from the soil. This can leave pastures 'sour' with livestock reluctant to graze.





SOIL pH AFFECTS THE AVAILABILITY OF FERTILISER NUTRIENTS



At pH 5.5 23% of all applied Nitrogen is unavailable to the crop.

Applying calcified seaweed raises soil pH, with studies showing that increasing the pH of an acid soil (pH 5.5) with **Seacalmin** by 0.5 of a unit improves N, P and K availability by 16%, 8% and 30% respectively. With chemical fertiliser prices continuing to escalate this is a significant benefit.

5. EXCELLENT MINERAL PROFILE

Seacalmin is a rich source of calcium and magnesium, as well as 72 trace minerals. Calcium is important for the build-up and maintenance of plant cell walls, the resistance of tissues and root development. Magnesium activates protein synthesis and facilitates the absorption of phosphorus.

Seacalmin can also help address other soil mineral imbalances and trace element deficiencies. As well as releasing locked-up phosphate and potash in the soil, **Seacalmin** releases macro minerals and a comprehensive range of trace elements to promote a healthy plant.

MINERAL ANALYSIS

Calcium	CaCO3	85%	Manganese	Mn	125 ppm
Magnesium	Mg	2.50% (= 4.145% MgO)	Iron	Fe	2120 ppm
Phosphorus	Р	0.08%	Cobalt	Со	6 ppm
Potassium	K	0.1%	Copper	Cu	12.2 ppm
Sulphur	S	0.45%	Zinc	Zn	37.0 ppm
Boron	В	16.5 ppm	Selenium	Se	1 ppm
Fluorine	F	300 ppm	Molybdenum	Мо	39 ppm
Sodium	Na	3100 ppm	Iodine	I	15 ppm

6. SEACALMIN - YOUR VALUED NATURAL FERTILISER FROM THE SEA

- * Cut fertiliser costs
- * Boost crop yield, quality and palatability to livestock
- * Correct acidic soils
- * Correct soil mineral imbalances
- * Stimulate beneficial soil bacteria
- * Improve root development and soil structure
- * Release 'locked up' phosphate and potash
- * Reduce slug damage
- * Fix atmospheric nitrogen

7. APPLICATION OF SEACALMIN

Thanks to the dry, granular nature of **Seacalmin** it can be applied to land by broadcasting or using a standard fertiliser spreader, which means it's possible to spread it yourself without the need of a specialist contractor.





Spread only once every three years!

An application rate of 250kg per acre is recommended every three years. Spreading can be done at any time of year and any livestock can remain in the field during application.

8. PACKING

500 kg big bags, 22 tons per 20ft container min. order = 1×20 ft fcl

9. SEACALMIN AND CLOVER

An increase in clover and its re-establishment are frequently reported benefits of using **SEACALMIN**.

WHY IS CLOVER IMPORTANT?

Research on clover has shown that feeding experiments introducing white clover have increased milk yields by 30% as well as levels of milk fat and milk protein. On average a sward containing good clover balance receiving NO NITROGEN, produces as much dry matter as an all grass sward receiving 120 to 160 units Nitrogen. Clover takes up from the soil a high concentration of trace elements, such as copper, zinc, manganese and cobalt which ensure rapid growth rates, as well as better condition and disease resistance in livestock. A good clover sward contains up to three times the copper content of rye grass and significantly higher levels of other trace elements.

10. OPTIMUM pH WITH SEACALMIN

Optimum pH ensures that you gain the full potential frm costly compound fertilizers. Why waste costly fertilizers on soils with incorrect pH? Ministry of Agriculture Fisheries and Food bulletin number 35 states:-

NITROGEN "Soil acidity affects the supply of available nitrogen from resources in the soil and from added manures and

fertilizers"

PHOSPHATE "Below pH 6.5 as acidity increases, phosphate availability in the soil decreases rapidly.

Sooner or later on acid soils all added phospates are convered to poorly available forms"

POTASH "The supply of exchangeable potassium in the soil is often low on acid soils"

With ever increasing fertilizer costs it is vital to maintain optimum soil pH. Correct soil pH ensures the maximum utilization of added fertilizers and the optimum conditions for bacteria and worms to multiply so they can play their vital part in the breakdown and release of chemical fertilizers and FYM.

Experience shows that an application of 5 cwt per acre of **SEACALMIN** on permanent grassland every three years will hold the pH once the optimum has been obtained.

11. OTHER BENEFITS

FARMERS USING SEACALMIN HAVE REPORTED THE FOLLOWING BENEFITS:

+ GRASSLAND

Better grass yields on poor fields - Clover encouraged and maintained - Closer grazing, more and better bottom - Improved palatability - Quicker breakdown of dung, fym and slurry - Less dung-pat patchy rejection of pasture - Improved fertility (shorter calving index) - Lower intake of free access minerals - General health of stock fimproved - More bloom on stock - Milk quality improved - Saving on artificial fertilizers.

To obtain best results with livestock all grazing areas should be treated

+ MARKET GARDEN

Brassicas Whiter, tighter curds - Improves resistance to club root - Less blown heads and whiptail

- Better proportion of large heads - Vigorous growth

Fruit Bitter pit prevented - Better keeping quality - Less botritis - Improved colour - Improved flavour

+ ROOTS

Good yields - Healthy crops - Higher sugar content - Reduced scab - Better keeping quality – Fertilizer savings- Less heart rot (Boron deficiency)

CEREALS

+ <u>CROP RECOMMENDATIONS</u> GRASSLAND

GIVAGGERIID		CENEALS				
Permanent pasture	5 cwt per acre	BRASSICAS		ROOTS		
Leys	every 3 years	Oil Seed Rape	5 cwt first year	Early and main		
Seeds		Broccoli	plus	Crop Potatoes		
		Cauliflower	2 to 3 cwt second year	Sugar Beet		
ORCHARDS		Cabbage	NONE for	Carrots		
Soft and top fruit 6 to 8	cwt per acre	Kale	next 2 to 3 years	Swedes		
		Sprouts		Turnips		
		Lettuce		Mangolds		