



**PRODUCT INFO  
& DATASHEET**

## **SICOMARE 'SOILBUILDER'** *Superior to any other seaweedmeal*

### **FOOD FROM THE SEA**

Much of the surface of the world is covered by sea and the vegetation growing on its shallow margins is greater in bulk than the rest of the world's vegetation added together. From earliest times the usefulness of *seaweed as a natural aid to increase the fertility of soil for cultivation* has been recognised.

To use seaweed in its natural state proved laborious - being 90% water it is both bulky and heavy. In order to tap the plants' nutrients and substances it is best to break down the seaweed before use. The SICOMARE 'SOILBUILDER' process begins with the harvesting of a *specially chosen seaweed*:  
- *Ascophyllum nodosum*.

This seaweed is used because of its extremely high content of alginates and other gums. It flourishes in its native habitat along some of the most beautiful stretches of Ireland's western coastline. There it is carefully nurtured and, as importantly, carefully cropped. It is able to regenerate itself in as little as three to four years, making it a most valuable renewable resource.

Once collected, the fresh seaweed is taken immediately to a drying plant where it is washed in fresh water to remove surface salts, then dried and ground to exacting standards into a clean, constant meal.

However, even this high quality seaweed meal would take a considerable time to have any beneficial effect when applied to soil, particularly in poor soils where the microbial activity is often low or even non-existent. During this time lag, not only can there be a failure to build up the quality of the soil, but there can also be a temporary nitrogen deficiency.

SICOMARE 'SOILBUILDER', on the other hand, ensures through its *unique composting treatment of the raw seaweed meal* that all the important life encouraging ingredients are retained and that they are *immediately available from the moment it is applied* to a moist soil. It contains a high level of bacterial activity even before it is used. Moreover its format is such that a high proportion of essential gums have been unlocked. These provide the basis not only for the creation and sustenance of a balanced ecosystem of beneficial bacteria and fungi but also improved soil aggregation, clay flocculation and moisture retention.

SICOMARE 'SOILBUILDER', when it comes into contact with moisture in the soil, *unlocks up to 40 times the quantity of alginate by comparison with unprocessed seaweed meal* and it is the release of this alginate gel that is the highly effective organic mechanism achieved by all the products in the SICOMARE range.

### **ALGINATE GEL**

As well as providing the basis for the creation and sustenance of a balanced ecosystem of beneficial bacteria and fungi, the Alginate Gel produced by SICOMARE also improves soil aggregation, clay flocculation and moisture retention. Seaweed contains all the known essential trace elements.

It is vital that these should be in a form acceptable to a plant. SICOMARE ensures through its unique composting treatment of the raw seaweed meal that all the important life-encouraging ingredients are retained and that they are available as soon as it is applied to a moist soil.

When SICOMARE is applied to soil the alginate is in the form of potassium alginate, which is water soluble.

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This will be washed into the soil and, within the soil, will be precipitated as a gel. The alginate, a high molecular weight polyuronide, will take different forms depending on the pH of the soil. In acid soils the alginate will be present as alginic acid, in chalky soils it will be present as calcium alginate, and in salt rich soils, at least partly, as sodium alginate. It is this gel that is responsible for the effects of the product on soil structure, that gives protection to root hairs, and that reduces water loss.

#### Demonstrating SICOMARE SOILBUILDER

A simple experiment demonstrates the effectiveness of the SICOMARE process for unlocking the Alginate Gel. Two samples are prepared, one of unprocessed seaweed meal and the other of an equal volume of SICOMARE SOIL-BUILDER. To each is added an equal amount of water and the samples are then left for a short time to soak.

Equal quantities of the resulting solutions are then added simultaneously to test tubes containing 20% calcium chloride solution. The difference is immediately evident.

The unprocessed seaweed meal remains as a suspension. By comparison, SICOMARE SOILBUILDER converts straight away into a gel of calcium alginate just as it does when introduced into moist soil.

### **SICOMARE SOILBUILDER VERSUS SEAWEED MEAL FOR SOIL IMPROVEMENT**

No contest! Judge for yourself!

When unprocessed ordinary seaweed meal is applied to soil it takes a considerable time for it to take effect - especially in poor soils where the microbial activity is low or even non-existent.

The meal must be broken down by soil bacteria before it releases any beneficial qualities.

Not only can this time lag cause a temporary nitrogen deficiency but it does nothing initially to help build up the quality of the soil.

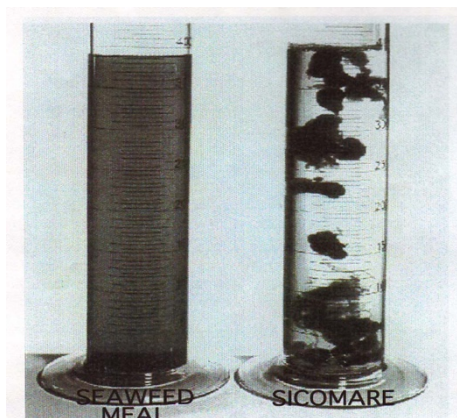
SICOMARE, on the other hand, ensures *through its unique accelerated composting process* not only that all important life-encouraging ingredients are retained but also that they are immediately available the moment it is applied to a moist soil. It contains a high level of bacterial activity even before it is used.

Moreover, its format is such that a high proportion of essential gums have been released.

These provide the basis not only for the creation and sustenance of a balanced ecosystem of beneficial bacteria and fungi but also improve soil aggregation and moisture retention.

The result? There is 40 times the amount of available alginates in SICOMARE than in unprocessed seaweed meal.

***THAT'S WHY SICOMARE CAN CLAIM TO BE MANY TIMES MORE EFFECTIVE THAN SEAWEED MEAL!***



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