

# soilmate<sup>®</sup> REVIVAL-S



## Wild Harvested Seaweed (WHS) 0.5-3.5 + 1.1 Bacillus Bacteria + Organic Carbon

Soilmate revival contains almost every micro-nutrient in a fully chelated (immediately available) form. The wild harvested seaweed is also loaded with carbohydrates which plants use as a building block. Numerous beneficial micro-organisms also use carbohydrates as a food source (especially the alginates in the seaweed) that act as soil conditioners. Seaweed also contains alginic acid and mannitol, which are carbohydrates with chelating ability. Chelates are large organic molecules which encircle and hold trace elements enabling plants to effectively absorb micro-nutrients that are generally in 'unavailable' forms. The alginates react with metals in the soil and form long, cross-linked polymers, these polymers improve the crumbling in the soil, swell up when they get wet and retain moisture for long periods.

## Important Plant Hormones in Soil Mate Revival

Another vital component of our WHS Liquid Seaweed Fertilisers are hormones. Seaweed contains four primary hormone types: auxins, cytokinins, betaines and gibberelins. These hormones, although only required in very small proportions, are essential to plant health and vitality.

### + Auxins

There are many different auxins, and they all have a specific role. The primary function of auxins is to balance the plants speed of growth. They have both growth-stimulating and growth-delaying functions. They also stimulate root growth and prevent bud forming or bud opening at the wrong times. Seaweed plays an important role in the plant's own auxins production as the hormones form with the help of trace elements from the liquid seaweed fertiliser.

### + Cytokinins

Cytokinins are another group of essential plant hormones. They initiate and activate basic growth processes. Cytokinins available in liquid seaweed stimulates growth with greater vigor because they mobilize nutrients in the leaves. They also provide protection from marginal frost (up to -3 Celsius). Cytokinins also control the senescence, loss of a cell's power of division and growth (aging processes) in the plant.

### + Betaines

Betaines play an essential role in the osmotic processes in plants. They help to increase the water uptake in plants and are extremely helpful in dry conditions. Betaines are also particularly helpful to plants undergoing stress.

## Beneficial Bacteria

Soilmate Revival does exactly what it says, it revives your soil. With the addition of 5 key Bacillus bacteria into a fish based fertiliser containing 5.5% organic carbon, Revival will literally revive

your tired soils from the effects of chemicals, chemical fertilisers, tilling and monocropping. Each bacillus species has been specifically selected to perform a range of functions for the soil and the plant including:

- Improves soil structure
- Increase nutrient uptake
- Build the immune structure within the plant
- Reduce the impacts of salinity
- Increases moisture holding capacity
- Build suppressive soils

By adding the Bacillus bacteria to abalone based fish fertiliser containing organic carbon, NPK and a full complement of trace elements, Soilmate Revival will provide much needed organic nutrition to your plant while delivering the 5 essential Bacillus bacteria to the root zone.

## NEW LOW-ODOUR FORMULA!

Total Major Nutrients:	Unit
Nitrogen (N)	% 1.82
Phosphorus (P)	% 0.521
Potassium (K)	% 0.094
Sulphur (S)	% 0.225
Total Cations:	
Calcium (Ca)	% 0.0697
Magnesium (Mg)	% 0.0534
Sodium (Na)	% 0.319
Total Minerals:	
Copper (Cu)	ppm 6.07
Zinc (Zn)	ppm 21.2
Iron (Fe)	ppm 0.272
Manganese (Mn)	ppm 1.35
Cobalt (Co)	ppm 0.125
Molybdenum (Mo)	ppm 0.305
Boron (B)	ppm 2.08
Carbon Content:	
Organic Matter	% 11.1
Organic Carbon	% 5.55
Carbon/Nitrogen Ratio	C/N 7.37
pH (1:5 Water)	3.50

Our Wild Harvested Seaweed and Abalone Fertilisers are sustainably sourced from Victoria waters. Our Full range of Organic Fertilisers are proudly Australian Made & Owned.

# Active Micro-Organisms & Nutrients in Revival-S

## Including 5 bacteria and nutrients and cellulose

### + Bacillus subtilis

1. Promoting Plant Growth. *Bacillus subtilis* can secrete active substances that can promote plant growth, flowering and fruiting, which helps increase yield and income.

2. Improve Soil Structure. *Bacillus subtilis* in agriculture can significantly increase soil alkaline nitrogen, phosphorus content, available potassium, and total potassium content. It can also improve and regulate nutrients in the plow layer, thereby regulating soil nutrients, changing soil microbial flora structure and decomposition of pesticide residues in soil.

3. Improve Crop Quality. After *Bacillus subtilis* colonizes in the soil, it will produce a large number of plant hormones and organic acids, forming a benign plant-soil-microbial ecosystems, thereby effectively improving crop quality.

### + Brevibacillus laterosporus

Is a pathogen to negative invertebrates, excretes antimicrobial compounds against certain pathogenic bacteria, fungi and pathogenic nematodes species.

### + Nutrients

A range of macro and micronutrients derived from abalone and fish, derived using cold enzyme processes. These nutrients are plant available.

### + Bacillus mucilaginosus

Dissolves P & K, making it more plant available, fixes N, promotes plants growth, improves immune health leading to reduced disease pressure, can flourish in a wide range of pH and can have a high flocculating effect.

### + Bacillus licheniformis

Cycles nutrients in the soil, produces antifungal compounds that can protect the plant from pathogen attack, can withstand high pH and high and low soil temperatures and other environmental stresses.

### + Bacillus megatrium

Produces phosphate and potassium fixing fertilisers, degrades organic P in the soil, reduces pesticide residuals in the soil, outcompetes pathogen activity at the rhizosphere, speeds up growth in new plantings.

### + Cellulose Utilisers

Like *Trichoderma* spp require only minerals and cellulose for growth. These fungi break down plant remains into organic materials that are beneficial to other micro-organisms such as Protozoa.



### Application Rates

Crop Type	Unit	Frequency
Vegetable	2-4L per Ha into 300-300L water	Short crops (less than 10 weeks) - Once per crop rotation within 2 weeks of planting. Long crops (over 10 weeks) - Twice per crop rotation. First app within 2 weeks of planting, second app midway through crop cycle
Pasture	4L per Ha into 200-300L water	Apply in Spring and Autumn.
All other crops	2-4L per Ha into 200-300L water	See Soilmate specialist for application timings.

Remember to shake very well prior to application.

