

## Chitosan Oligosaccharide in modern crop systems

The most abundant biomasses in the natural world are Chitin and Chitosan, polysaccharides, derived from shrimp and crab shells, insect shells and fungal cell walls.

Chitin is not easily soluble in water or conventional organic solvents. When deacetylated at high temperatures, it results in Chitosan which is also *not easily* soluble in water.

However, **Chitosan** processed by a biological enzyme method, and converted into Chitosan Oligosaccharide *is readily soluble in water*. Chitosan Soluble Oligosaccharide Powder is not a plant nutrient, but it can indirectly increase a plant's absorption of nutrients by improving its roots, and nutrient up-take. This contributes to improved plant growth, chlorophyll content, and plant productivity.

In pest management, Chitosan Oligosaccharide is not a conventional pesticide, but it activates the SAR immunity in plants, improves plant responses to biological and abiotic conditions such as low temperature, drought, saline-alkali conditions when present.

Products originating from nature that offer non-toxic crop and soil advantages, as well as biocompatibility, and biodegradability are the crop science to improve quality and efficiency.