

## **Chitin: A Natural Biostimulant** and Pest Suppressant

Squid Juice is rich in chitin, a natural bio-stimulant and pest suppressant.

## What is Chitin?

Chitin naturally occurs in insect and crustacean shells as well as fungal cell walls. Numerous scientific studies have shown that chitin promotes plant growth and defense. In addition to promoting vegetative growth, chitin is known to have antifungal properties and to deter insects.

Almost all chitin, in nature, has a specific crystal form, known as an α-structure. This structure is heavily mineralized and very insoluble, making it hard to apply and utilize for agricultural processes. Furthermore, the chemical functional groups that cause a lot of chitin's valuable effects, are buried inside the α-chitin structure. We have a much better solution: β-chitin. β-chitin is extraordinarily rare in nature, only occurring in squid and a few other marine animals.

Compared to  $\alpha$ -chitin, the nanofibers of  $\beta$ -chitin are more water soluble and much more bioactive; the functional groups are exposed, resulting in molecules that are hundreds, if not thousands, of times more bioactive. We have developed a natural fermentation process to harness the power of β-chitin, in a unique formulation of micro and macro nutrients, specifically designed to increase plant growth, yield, and vigor.