

PROLIFE PLANT VITALIZER

SYSTEMIC ACQUIRED RESISTANCE



Systemic Acquired Resistance (SAR) is an unfamiliar topic to many growers, but it is one that is of great value. If you take the time to learn about chitosan, you will be well on your way to having a garden unlike anything you have ever experienced before. The chitosan can create a SAR effect and act as the Natural Plant Defenders within your plants. A SAR is triggered and promoted in plants through a complex series of reactions. This resistance is elicited through the foliar and/or root zone application of chitosan which creates a phantom pathogen invasion - a sort of alarm signal is then sent throughout all of a plant's cells. This alarm heightens the natural defenses; creating defensive enzymes, antibiotics, proteinase inhibitors...in the process it activates oxygen, increases growth hormones, increases nutrient uptake, and in general speeds up a plant's metabolism. This response is because the plant is preparing for an attack. This phantom enemy in actuality does NO harm to the plant, and the plant in turn reaps the benefits of its razor sharp internal systems.

Chitosan is a plant defense booster derived through the breaking down of chitin found in shellfish and mullocks. In general Chitosan can help improve the efficiency of a nutrient or fertilizer. Chitosan will increase the quantity, size and shelf life of a harvest product. Chitosan is also effective at providing insect and disease control. The chitosan molecule triggers a defence response within the plant, leading to the formation of physical and chemical barriers against invading pathogens. Chitosan possesses a high growth stimulating efficacy combined with antifungal and antibacterial activity of systemic character. *Chitosan cause no damage to the plant whatsoever.* Chitosan inhibits the reproduction of pathogens. Once applied either via foliar spray or through watering, it provides plant protection against fungal infection by rapid expression of a number of defense responses, including forming structural barriers at sites of attempted fungal attacks. It also protects against insect attack by activating genes which produce protease inhibitors. Lastly, chitosan stimulates the plants hormones responsible for root formation, stem growth, fruit formation and development. In addition to promoting growth and protecting against attacks, using chitosan in a garden can help to improve the beneficial microbial activity of a growing medium. This increase in microbial activity helps in conversion of nutrients to bio-available form. Chitosan improves the root system, allowing plants to absorb more nutrients from a medium. Along with its plant inducing immune system response, chitosan accelerates plant development. It increases root and shoot biomass, early flowering, early fruit set, early fruit maturation, and increases fruit number.

ProLife Plant Vitalizer is the only 100% water soluble chitosan available and will become one of the top plant health and yield products as awareness of its value grows.



Chitosan PRO™ 