

THREE BULLET POINTS FOR SBS(A)

SBS(A) is a custom formulated beneficial bacteria mixture containing several active species designed to enhance pathogen suppression in the root zone. Included in the formulation are bacteria that use chitin as a food source. Several other species of bacteria are included that provide additional disease suppression. SBS(A) is available in a liquid form (1 L bottle) that treats at maximum rate ~ 50 acres. It is also available in convenient tablet form for spot treatment. Each tablet will treat 10,000 sq. ft.

SBS(A) should be applied along with Nutra-TAC that contains chitosan, the soluble form of chitin. Chitin is the material that crustaceans and insect skeletons are constructed. Many soil fungal organisms have chitin in their composition. Chitin and chitosan have been used for years to elicit defense responses from plants. Adding the SBS(A) with the Nutra-TAC will ignite a population increase in beneficial Chitinolytic bacteria to fight disease. In addition to the disease suppression, many insect skeletal components and eggs have chitin as a basic polymer. Bacteria in the soil that consume chitin are stimulated by the soluble fraction of chitin called chitosan in Nutra-TAC. Chitin is a polymer containing nitrogen and sugar (glucose) and serves as an elicitor for microbial activity. It serves as a fuel/food source for specific organisms with enzymatic ability to dissolve the material. These same organisms will attack soil pests and pathogens that contain chitin in their body.

SBS(A) along with the chitosan usage rates can be rate adjusted to treat a specific zone in the soil. As plant roots explore the soil, they carry with them populations of microbes. This concept is very important and leads to the conclusion that prevention of disease and pest issues must be initiated at a very young plant development stage. Application at seeding or during transplanting will provide an early defense posture for the soil beneficial microbial community.

- **Soil Biological Symphony (SBS-A) is a concentrated source of bacteria including Chitinolytic species when used with Nutra-TAC, a defense response is elicited against pests and pathogens. The microbes in SBS-A include many bacteria species including Chitinolytic species, that use Nutra-TAC as a primary food source.**