



Why Use Humic products?

SUSTAINABILITY - Pure & Simple!

Growers MUST put Carbon back into their agronomy practices in an efficient and readily available manner, while reducing dependency on synthetic fertilizers and chemicals.

This is the only path to continued agricultural sustainability, otherwise the Carbon (Food for soil organisms) diminishes to zero and renders the addition of man-made synthetic nutrients pointless.

Unfortunately, with the advent of Anhydrous Ammonia fertilizer products after WWII and ever increasing use since then, growers have been "duped" into relying on an unsustainable method of adding energy into the soil food system, without the corresponding Carbon in proper proportion to the energy - i.e. Carbon to Nitrogen ratio. Soil organisms consume 10 times the Carbon for each unit of Nitrogen, so it's definitely not "rocket science" to understand where the lack of Carbon being utilized in post WWII agriculture has led us.

Humic products are extremely effective in combating salinity issues that arise from heavy use of synthetic fertilizers and well water degradation. Feeding soil bacteria massive amounts of Carbon (their primary food source) along with the Energy and Oxygen necessary to respire the food, stimulates massive root growth. Larger root system means more water and nutrients available for sugar production = Increased Yield.

Plant health is based on the ability to produce more carbohydrates than are consumed. The health, quality and yield are increased based on a surplus of carbohydrate.

Unfortunately, the overuse of fertilizers and chemicals made the soils more saline, limiting the plants ability to grow substantial root mass and therefore decreased the plants ability to uptake water and nutrients. Soil amendments such as elemental sulfur, gypsum, and other calcium materials do not help reclaim saline soils, but rather increase total salinity, further compounding the problems.

Modern farming practices, irrigation, drainage, cultivation, harvesting, compaction, heavy use of synthetic fertilizers and chemicals have contributed to the depletion of soil humus and beneficial



bacteria to a level where crop sustainability is severely threatened. Humic substances have historically been re-generated in the soil through such practices as crop rotation, planting legumes, green manure, and applying compost. These practices are time consuming, costly and today's economic pressures prevent growers from sustaining these practices.

Now, a sustainable method of adding significant amounts of clean activated Carbon back into our soils is readily available through Humic products from Humic Growth Solutions.

This is the classic dilemma of modern agricultural practices, maintaining productivity and sustainability. Prior to WWII, growers incorporated cover crops, manure and compost into their agronomy programs, which promoted healthier soils and beneficial biology. Natural balance is critical to sustainability and our ability to continue growing food.

Think about it - what is a seed made of? N, P or K? Definitely NOT! A seed(just like the plant) is 90+ % carbohydrate- C H & O (sugar) yes sugar! Less than 10% of a plant is so called nutrients (aka Salts) - that is fact! (Look at your last tissue sample analysis report)

What has post WWII agricultural practices focused on applying to your fields? N, P & K would be the answer, but that is exactly why you are now reading this.

Humic substances add tremendous amounts of "natural" food for soil organisms in a cost-effective and sustainable manner, which also increases the Cation Exchange Capacity of the soil, another Huge benefit!

Water and Nutrient holding capacity is greatly enhanced with the addition of Humic products. Soil is better "conditioned" with the addition of Carbon through Humic. Modern farm cultural practices like plowing and rototilling have significantly decreased soil Carbon levels through the introduction of atmospheric oxygen which volatilizes off as carbon dioxide. Another Huge reason to incorporate Humic products into your agronomy program.