Nanjing, China

Reduction of chloride levels in irrigated tomato farms

Outside the town of Nanjing, China irrigation water from the Yangzi River was the main source of moisture for the farms with the main crop tomatoes. Elevated chloride levels in the irrigation water over time caused elevated soil chloride levels and severely hindered tomato plant growth.

Basis of Treatment

Byo Soil 200 (SoilSaver AG) is a 100% natural patented, propriety humified soil extract which contains a pharmaceutical-grade humate molecule and nine essential soil microbes and essential enzymes. The product performance is accelerated with Byo-Gon biostimulant. The high cation exchange capacity of the humified soil extract molecules in Byo Soil 200 attaches the salt ions to the carbon chain through a chelation bonding process. The microbes and enzymes ensure the breakdown of the Na-Cl bond and catalyze the permanent, ionic bond to the organic molecule. Microbes and enzymes break portions of the organic chain with resulting ionic bonds becoming encapsulated within the organic structure. Byo-Gon biostimulant speeds up the rate and efficiency of the biological portion of the process. This product does NOT reposition salt, it eliminates it in a much quicker and more cost effective manner than other remediation options.

Treatment

Byo Soil 200 was applied to 4 acres of farmland at a rate of 2 gallons per acre in 50 gallons of water. The soil was sprayed and then saturated with approximately 100 gallons of water/acre. Pre and Post chloride levels were tested and are listed below:

SAMPLE	Chlorides Start	Chlorides Finish
Sample #1	897	34
Sample #2	825	44
Sample #3	877	42
Sample #4	827	35

As you can see from the above data, the chloride levels were reduced significantly after 90 days. Once the data was verified, tomatoes were transplanted into the treated area and after 120 days were thriving.