



Improve Soil Structure

Improve Infiltration

What is SperSal 35?

SperSal 35 is a patented formulation of polymaleic acid that increases the solubility of both natural and applied calcium and magnesium for faster and more thorough incorporation into the soil profile. It helps replace harmful sodium ions in the soil (which can weaken soil particle aggregation and lead to compaction) with beneficial calcium and magnesium which re-aggregate soil particles for increased porosity. This greater porosity allows for greater infiltration and penetration of water for a healthier, more functional soil profile.



The Importance of Soil Structure

Good soil structure is critical to healthy plant growth, and is created when a group of primary soil particles are held together by various soil-stabilizing agents to form larger aggregates. These aggregates define the small and large pore spaces that are essential for good infiltration and drainage, as well as the proper balance of water and air. Splashing rain or irrigation water, traffic, cultivation and sodium can all weaken or destroy soil aggregation. This results in reduced infiltration and aeration, and increased salt accumulation that can

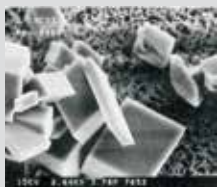
negatively impact plant quality. The key to maintaining good soil structure is to maintain good aggregate stability. SperSal 35 used in a regular program in conjunction with calcium applications will help you improve soil aggregation. Greater soil aggregation will increase pore spaces for enhanced water infiltration and gas exchange. By improving salt and nutrient movement through the soil, you can improve nutrient efficiency and overall plant productivity.

How Does It Work?

Traditionally, a source of calcium is added to the soil surface where it solubilizes slowly. SperSal 35 speeds up the solubilization process and interrupts the crystallization of calcium carbonate, which keeps more calcium in solution. Any calcium carbonate that does

crystallize is amorphous (see below) and is much more readily re-solubilized. By enhancing solubility, more calcium is active in the soil solution to bind small clay particles together and re-aggregate the soil.

Interrupts Crystal Formation



Calcium carbonate typically forms hard, smooth crystals in the soil.



SperSal 35 interrupts the formation of calcium carbonate crystals. Any crystals that do form are amorphous and are more readily re-solubilized.

Improves Soil Structure

Calcium is a basic building block of soil structure. If your soils lack the proper calcium content, or have excess levels of sodium, soil aggregation can weaken. Soil particles become dispersed and soil porosity is reduced (top right).

SperSal 35 increases the solubility of calcium so that it becomes incorporated into the soil more easily, increasing aggregate size and improving overall soil structure (bottom right). This increase in soil porosity leads to improved water infiltration rates for a healthier, more functional soil profile.

