

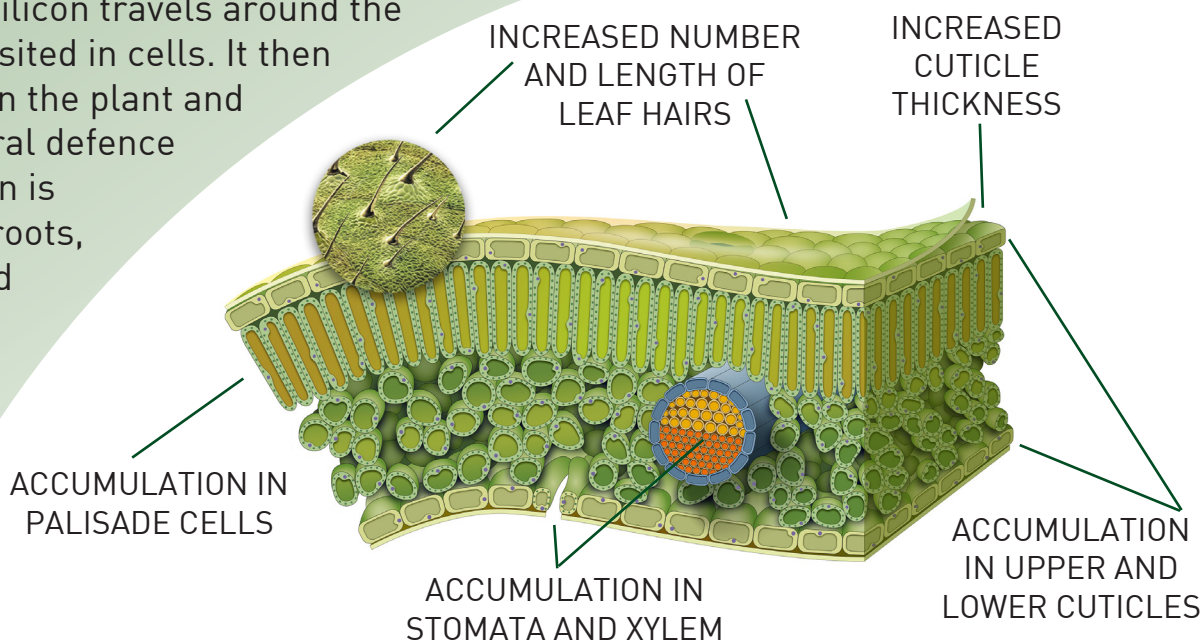
# The Benefits of Silicon to Plants

Silicon is a natural element which makes up almost 90% of the earth's crust and is commonly found as sand (silicate dioxide). Using our iNHIB Technology we make products that provide plants with bioactive silicon in the form of monosilicic acid.



## HOW IT WORKS

Once absorbed, silicon travels around the plant and is deposited in cells. It then acts to strengthen the plant and enhance its natural defence properties. Silicon is deposited in the roots, leaves, stems and even fruit and grain.



## INCREASES DISEASE AND PEST RESISTANCE

Silicon strengthens the cell walls and allows plants to create a tough outer coating with extra leaf hairs. This makes it much harder for feeding pests to penetrate and also restricts the growth of fungal hyphae. Following cell absorption, deposited silicon becomes immobile. However, plants are able to redirect freshly absorbed silicon to areas of stress or attack as part of their natural defence system. Regular applications are therefore important.



## INCREASES RESISTANCE TO ABIOTIC STRESS

With tougher internal structures, plants are more able to tolerate conditions such as extreme heat, cold, drought and strong winds, resulting in reduced levels of wilting and lodging across a wide range of crops.

DROUGHT —  
FROST —  
SALINITY —  
HIGH TEMPERATURE —  
HEAVY METAL TOXICITY —



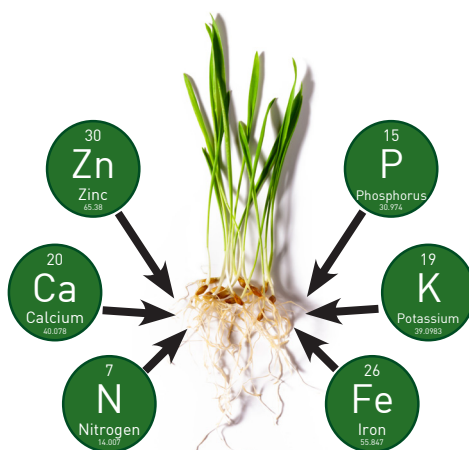
## INCREASES YIELD AND GROWTH RATE

With reduced stress, plants can focus their energy elsewhere. In studies, we observe increased levels of photosynthesis leading to larger fruits/increased grain fill and increased brix in some varieties. We also see the benefit of early varieties cropping even earlier.



## BALANCES UPTAKE OF OTHER ELEMENTS

Silicon encourages the absorption of beneficial elements such as zinc, calcium and nitrogen.



It also acts to regulate levels of phosphorus uptake and prevent toxicity from trace metals in the growing medium.

Silicon can be applied at every crop growth stage and using a variety of application methods, including direct to soil, as a seed treatment, via fertigation and even as a foliar spray.

**Strengthen plants and reduce chemical input with a sustainable, natural plant protection choice.**