



# Blue Mountain Minerals

## Aglime Quarterly **AG FACT**

Calcium can help improve soil structure, in turn increasing water penetration.



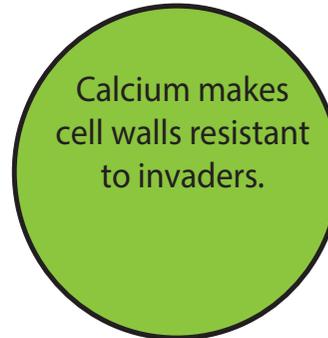
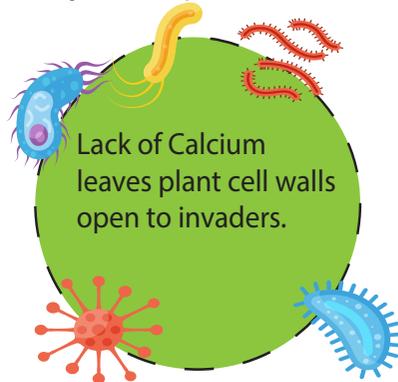
## Calcium in the Plant

If you could climb inside your plant, and take a look at the cell walls, you would see they are made of calcium and a pectin. The pectin acts like a glue forming Calcium Pectate, to help keep the cell walls strong and tight. When calcium is available to the cells the walls become as strong as concrete. When calcium is limited the walls are as weak as paper.

When the cell walls are strong the plant is strong, this includes the roots. Calcium is a major player in the construction of some hormone and enzyme systems that can help protect the plant from insect and disease attack.

A lack of calcium before harvest can cause creasing in fruit, bitter pit, and cracking. Post-harvest shortages can create premature rotting, shorter shelf life and brown spots.

Check with your soil advisor and make sure you have enough calcium in your soil to protect your plant and your crop.



## Calcium in the Soil

Calcium in the soil acts like a bonding agent aiding in the development of aggregation.

Soil particles can be unattached to each other **Dispersed** or clumped together **Flocculated** in aggregates. Aggregates are the arrangement of primary soil particles (sand, silt and clay) around organic matter and through associations with the particles.

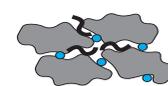
Soil with good structure will hold water and nutrients in large pore spaces between aggregates. In a poorly structured soil with small pores, water tends to remain near the surface creating a ponding effect or moves very slowly into the soil. Similarly compacted soil would have shallow root growth leading to stunted plant growth.

Soil aggregation and structure are the two most important properties of soil that can be maintained or enhanced through healthy soil strategies.

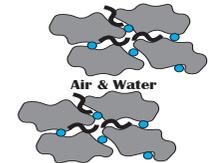
Soil Particle



Soil Aggregate



Soil Structure



Fertilizer ●

Organic Matter ~

References: Soil Health and Land Management Physical Soil Properties Fact Sheet N Dakota State University 0720