Cell Power® SLYCE 8%
Technical - Benefits

SOLUBILITY is the one thing that is vital when adding calcium to your soil. In other words, if the plant can't drink it into its roots, it will never get into the plant. Calcium will always amend the soil first then become available to the plant as a nutrient.

WATER PENETRATION PROBLEMS can be caused by several things:

- **High sodium this is caused by commercial fertilizers with high sodium content, soil that is sealed off with either a plow pan or hard pan layer and can't leach past this, so it stacks up in the soil. The sodium causes the soil to become pastier and to seal the soil and that the water can't penetrate.**
- **Bi-Carbonates in the soil from water that is high in bi-carbonate, it has much the same effect as sodium, however this is more sinister, that as it is taken into the plant it stops nutrients and water from going in and out of the plant, but this is something that happens over a long period of time. This can cause pre-mature tree decline in permanent plantings, resulting in yield loss and crop quality dropping off this also applies to row crops. The plant has to work much harder to take water into the plant.**
- **Low Calcium in the soil, in our western soils this is something that is very unusual, but it does occur. One way that this does occur is that the calcium is insoluble, the soil may have enough calcium in it, but it is unavailable to either amend the soil or to be used as a nutrient by the plant.**
- **High magnesium in the soil. If the base saturation of the soil has high magnesium calcium in the soil will usually be low. Magnesium is what cause the soil to stick together in heavy soils. This is usually what causes you to get taller when you walk across a field after a rain and the soil sticks to your boots.**

Talk to Omex

SOLUTION: The application of soluble calcium to the soil using OMEX® Cell Power® SLYCE 8% HA to the soil. Application rates can be determined by a soil analysis. Rates of 1 qt. to 5 gallons per acre are usually enough to solve most water penetration problems. The Ca++ is a double positive charge and when applied to the soil the calcium will push Na+ with a single positive charge off the clay particle and allow for it to be leached out of the soil profile.

Cell Power SLYCE 8% Technical

Humic Acid

Benefits

1. Food source for bacteria in the soil. They help break down tied up nutrition in the soil and create space in the soil for air and water to penetrate.
2. Holds 26 times more moisture than clay particles
3. 26 times more cation exchange sites than clay.
4. Once in the plant it helps transport nutrients and water in the plant, helps with disease control.
5. Seed Germination.

Benefits of Calcium

1. Reverses the damages from sodium and bi-carbonates in the soil by creating larger blocks of soil, this creates space between the soil for water and air to penetrate.
2. Flocculates the soil and makes it more friable. In other words, it makes the soil less sticky.
3. Increases water penetration.
4. Makes nitrogen uptake more efficient.
5. Feeds biology of the soil.
6. Helps control soil borne diseases.

Winter Rain Option

Before a winter rain storm comes into the area have the grower fill his soil profile with water, at the end of the irrigation apply 1-5 gallons of SLYCE 8%. Or, as grower fills soil profile for winter add SLYCE 8% at a rate of 1-2 qts to each watering to increase water penetration and holding capacity. As/when the rain event delivers its moisture to the saturated soil the calcium will exchange with the sodium which will remove substantial amounts of sodium from the profile and let mother nature do her thing, naturally!

For more information please contact OMEX Agrifluids at 559-661-6138 or write OMEXUSA@OMEX.com.