

Got Calcium?

There is an old wives' tale that says to "let pumpkin tendrils sip milk from a saucer." Common belief holds this originated with the idea that foliar feeding can be used to combat nutrient deficiencies (including calcium and phosphorus, which are both contained in milk).

But don't raid the refrigerator just yet ... the calcium and phosphorus in milk are bound into molecules too large to penetrate even the most receptive leaf. Still there IS a kernel of truth to this tale.

Studies have shown that 80% of foliarly-applied nutrients successfully reach their mark. This is of great importance when considering that, because of nutrient lockups and leaching, only 10-30% of ground-applied nutrients ever reach the plant.

All living parts of a plant above the ground (including twigs, branches, leaves, buds, fruits, flowers, and stems) can absorb nutrients. Once they are absorbed, there is quite a variation between the mobility of various nutrients. N, P, K, Cu, Mn, and Zn are readily translocated within the plant.

There are other elements – including calcium – that do not move easily within the plant.

For this reason, ground applications of calcium are very ineffective when used to correct calcium deficiencies in your plants.

But calcium is critical for plant development. In fact, by weight and volume, plants need it more than any other element.

On a cellular level, calcium is the chief determinant of cell wall and membrane strength and resistance. For obvious reasons, these are critical for healthy plant growth, as well as an improved ability to resist disease. Studies have shown that cell division is retarded without sufficient levels of calcium.

Will any source of calcium work? Actually, it is imperative that the calcium source used for foliar feeding be chelated. The word "chelate" comes from the Greek word for "claw." Most chelates are organic materials (EDTA is the exception) that can grasp/encapsulate – and then release – certain metal ions (including calcium, magnesium, and iron, among others).

These elements are far more available for plant uptake in this chelated form. The chelation process removes the positive charge for these ions, which allows the now

neutral (or slightly negatively-charged) molecule to slide easily through the pores of the leaf/root.

Growth Products' Calcium Chelate 8% (6-0-0) provides a great alternative to limestone and gypsum. This liquid solution is 100% chelated, so there is never lag time for product breakdown. Calcium Chelate provides dual efficiency, with the nutrients being absorbed via the leaves and roots of the plant. And since plants cannot effectively translocate calcium, foliar feeding with this product provides the entire plant with the calcium it needs.

Cal Mag Max 7-0-3 (with 4% chelated Ca and 2% Mg) is designed specifically to satisfy the special needs of plugs and other plants grown in soilless media. It contains a perfect 2-to-1 ratio of calcium to magnesium. The Ca and Mg in this product are chelated with a special sugar-acid chelate. Cal Mag Max may be used as a supplement or in alternate feeding with a standard fertilizer.

Want to learn more about the Growth Products Line? Call us at (800) 648-7626. You may also visit us on the World Wide Web at www.growthproducts.com. E-mail: questions@growthproducts.com. Faxes may be sent to (914) 428-2780.