We are fast returning to a raw rock system of fertility. Before 1850 the raw rock fertilizers, gypsum, and marls, were, aside from manures, the most common fertilizers.

- VS Eaton, PhD.

In the 1920’s the farmers of the eastern United States were “returning” to a pulverized raw rock system to help with soil fertility. Today the term is rock dust and it is making a comeback, showing up in the agricultural news as a new, reliable way to promote plant health by remineralizing the soil.

Limestone and Dolomite have historically been used to neutralize acidic soil conditions or to “sweeten the soil”. This naturally occurring rock is pulverized to a fine powder which is now understood as a way to provide Calcium and or Magnesium to the soil and provide much needed nutrients to the plant.

Gypsum (Dihydrite) is another rock, that as a dust naturally provides two essential nutrients; Calcium and Sulfur. The Calcium and Sulfur (as Sulfate), is in a soluble form, which mean particles readily dissolve in soil water so the plant can absorb them. Gypsum dust can be water run or spread on fields. It has been proven effective at leaching salts from the soil by replacing the sodium on clay binding sites with Calcium. This can also improve soil structure by keeping clay particles from sticking together which helps water infiltration and reduces run-off. Getting back to basics is fundamental to success.

Typically the cost of a soil amendment increases as the particle size decreases. Ultimately when purchasing crushed gypsum products, the goal is to have the majority of gypsum be crushed to a small enough particle size that it will react with the soil water within one year of application. Particles that are too large or are composed of insoluble materials will not dissolve in a reasonable time.

Gypsum, Dihydrite, chemically written as CaSO$_4$.2H$_2$O, already having two water molecules, reacts quicker in the soil.

No one wants to see this year’s soil amendment still on the ground in 3 years.

References: www.nrcs.usda.gov

“The Bean Bag” The return of agricultural gypsum, VS Eaton, PhD., University Chicago. 1921 Vol. 3 No. 10