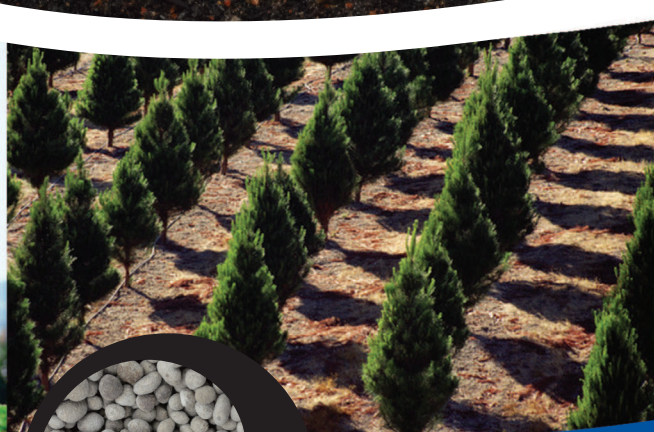




PRO-PELL-IT!

Propel Your Soil



PRO-PELL-IT!

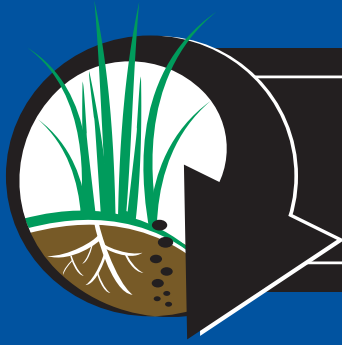
Propel Your Soil

PELLETIZED GYPSUM

Excellent source of calcium and sulfur.



Agriculture • Gardening • Lawns • Golf Courses • Landscapes • Ornamentals



PRO-PELL-IT!

Propel Your Soil

Pro-Pell-It!® products use only the finest ground Lime, Dolomite and Gypsum for fast and efficient soil penetration. Pro-Pell-It! is an excellent choice for agriculture, gardening, home lawns, golf courses, landscapes, and ornamentals. These top quality, fine mesh products are bound together with a durable binder that eliminates dust and makes your applications easy.

An excellent choice where large equipment and dust are prohibited:

- New seedings or sod
- Established turf
- Gardens
- Trees
- Shrubs
- Potted plants
- Vineyards
- Orchards

Gypsum

Gypsum is a common mineral obtained from surface and underground deposits. It can be a valuable source of both calcium (Ca) and sulfur (S) for plants and may provide benefits for soil properties in specific conditions.

AGRICULTURAL USE

Gypsum (sometimes called landplaster) is generally added to soils either as a source of nutrients or to modify and improve soil properties. Gypsum is somewhat soluble in water, but more than 100 times more soluble than limestone in neutral pH soils. When applied to soil, its solubility depends on several factors, including particle size, soil moisture, and soil properties. Gypsum dissolves in water to release Ca^{2+} and SO_4^{2-} , with no significant direct impact on soil pH. In contrast, limestone will neutralize acidity in low pH soils. In regions with acid subsoils, gypsum is sometimes used as a relatively soluble source of Ca for alleviation of aluminum toxicity.

GYPSUM HAS MANY BENEFITS FOR YOUR SOIL AND CROP

Gypsum provides plant nutrients calcium and sulfur.

Provides calcium to the soil cation exchange profile.

Reduces exchangeable sodium.

Improve water infiltration and reduce soil crusting.

Improve fruit quality and prevent disease through consistent availability of calcium.

CALCIUM SULFATE DERIVATION IS KEY TO PRODUCT PERFORMANCE:

- Calcium sulfate can take two forms used in soil applications: Dihydrate and Anhydrite.
- Di-Hydrate $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ (23% Ca, 18% S, 21% Water) contains two water molecules.
- Anhydrite CaSO_4 (29% Ca, 23% S) contains no water molecules due to geological conditions of high temperate and pressure.
- Di-Hydrate derived products have a higher dissolution rate. Dissolution measures the rate at which a solute becomes solubilized in solution (calcium in this instance). The higher the dissolution the greater potential for reaction of the calcium mineral. Solubility is a measure of long term potential.

IPNI. "Nutrition Source Specifics."

GYPSUM INCREASE IN WATER

	EC ds/m in 5 min.	EC ds/m in 10 min.	EC ds/m in 15 min.
Marion Ag	1.372	1.473	1.531
Columbia River Carbonates	1.21	1.371	1.438
Art Wilson	0.384	0.415	0.437

Prilled Gypsum Dissolution
Mukang Labs, Inc. 4/20/2017

