Gypsum Fact Sheet

What is Gypsum?

Gypsum residuals (GR) are comprised of waste from mined native gypsum deposits which were originally crushed to produce wallboards “sheetrock”. Like native gypsum, GR improves soil structure and provides calcium and sulfur to the plants. It does not increase soil pH.

Is Gypsum Residual a Good Fit for My Cropping System?

Gypsum is often used for fruit and vegetable production. It supplies calcium and sulfur to the plants. Soils that are good candidates for gypsum are:

- Soils cropped to lowbush blueberries,
- Soils with low calcium levels,
- Soils with low sulfur levels,
- Soils with high magnesium or sodium levels (when calcium is low).

Bedding Benefits- Research has shown that gypsum combined with sawdust or shavings, significantly decreases mastitis bacteria due to its high calcium level.

Gypsum Residuals Benefits

NUTRIENTS

Calcium

- Helps bind organic and inorganic components and so protect soil organic carbon from mineralization, Promotes the flocculation of soil colloids, improves the soil structure and the stability of soil particles.
- Makes plants less susceptible to diseases and pests,
- Is a plant nutrient that strengthens plant cell walls.

Sulfur

- Essential for root growth and seed production; particularly important for vegetables crops such as cabbages.
- Increases plant resistance to biotic and abiotic stresses.
- Improves nitrogen and phosphorus use efficiency.
- Plays an important role in building healthy microbial activity.
- Helps fungi to remove silica and boron from soil particles for crop uptake.

SOIL QUALITY

- Improves soil structure and friability,
- Improves pore space for better air and water movement,
- Reduces soil crusting,
- Reduces erosion through increased flocculation and aggregate stability of soil particles.

Typical application rate is 1 - 3 tonnes per acre. As nutrient, the application rate should be based on soil calcium level and soil cation exchange capacity.

The land application of Gypsum residuals requires a fertilizer label from the Canadian Food Inspection Agency (CFIA) or the approval by the NB Department of Environment and Local Government for agricultural land application.

In addition, the application rate should be calculated based on the originating gypsum facility's laboratory analysis.