



Residual Lime Products Fact Sheet

What are Residual Lime Products?

Residual lime products are the by-products of an industrial process that used lime in the production of an end-product (i.e. paper). The lime has generally undergone a change that makes it more reactive than traditional AgLime, resulting in a faster effect on the neutralization of soil acidity. Residual lime products have both calcium carbonate (CaCO_3 - Aglime) and calcium oxide (CaO). Calcium oxide is highly reactive in the soil and is the reason residual lime products are more reactive in the soil.

Residual lime products require a Canadian Food Inspection Agency (CFIA) fertilizer label or a NB Environment and Local Government Approval for agricultural land application because they may contain heavy metals or pathogens.

The value of residual lime depends on the original lime, industrial process and residual lime storage conditions. Residual lime products are not only soil amendment, but they also contain crop nutrients. The application rate should be calculated using the originating facilities residual lime laboratory analysis.

Are Residual Lime Products a Good Fit for My Cropping System?



Soil acidity is a major issue for NB agricultural production with almost 80% of NB soils below optimum pH levels. Low soil pH can lead to lower nutrients use efficiency by the intended crop, whether nutrients come from the soil or through applied nutrient sources (manure, amendments, fertilizers) because they are locked in the soil.

The optimum soil pH varies depending on the crop. For example, many forages and vegetable crops do better with a pH over 6, while wild blueberries and cranberries require a pH below 5.

Most NB soils require calcitic lime. Almost 100% are calcium-deficient while only 20% are magnesium-deficient. This makes residual lime products a potential good fit for most cropping systems.

Examples of residual lime products are:

- **Lime Grits** (or also called lime mud)
 - Some sources may contain phosphorus (depends on the industrial process)
- **Grits and Dregs**
 - Some sources also contain sulfur and potassium.
- **Alkaline-Stabilized Biosolids**
 - They have been stabilized by adding alkaline materials to raise their pH.
 - They contain nitrogen, phosphorus, potassium, and sulfur.
 - They also supply organic matter to the soil.

The typical application rate is:

The typical application rate is 1-4 tonnes /acre. Residual lime should not be spread with a lime spreader as it can be “sticky” and bridge inside the spreader’s hopper. A vertical beater manure spreader may be the best option.