



Optimize manure efficiency, soil structure, and nutrient availability with Bio-Cal.

Bio-Cal's highly soluble formula enhances crop performance and optimizes manure efficiency in the first year. Acting as a catalyst in soil fertility programs, Bio-Cal, helps to mobilize nutrients, unlock soil potential, and promote healthier, stronger plants all season long.

Improve your plant available nutrients

Macronutrients, including nitrogen (N), phosphorus (P) and potassium (K), are needed in large quantities for plants to complete their vegetative and reproductive life cycles. Utilizing Bio-Cal as a key soil solution has shown over a 20% increase in plant available NPK.



Bio-Cal® is the go-to product for growers looking to increase their nutrient availability, offering unique sources of calcium that improves plant availability and uptake, reduces compaction, and boosts crop profitability.

As the first specialized calcium fertilizer in its category, Bio-Cal® balances soil pH, improves soil structure, and enhances root development. Especially effective in soils with low calcium levels or high potassium or magnesium levels, Bio-Cal® maximizes farm productivity and supports long-term soil health.



Midwestern BioAg™

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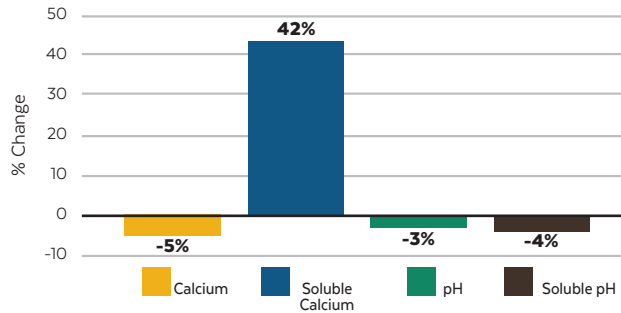
**Unlock Your Soil Potential
All Season Long with
Bio-Cal®**

Bio-Cal®

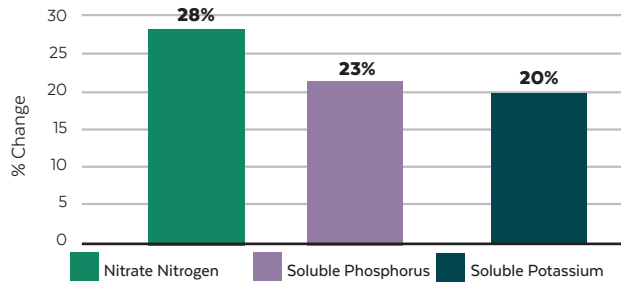


Bio-Cal reported improved NPK Availability, Calcium Solubility and Performance than Cal-Sul

Reported Changes in Calcium and pH When Treated With Bio-Cal vs. Cal-Sul



Reported Changes in Macro Nutrient Availability When Treated With Bio-Cal Versus Cal-Sul

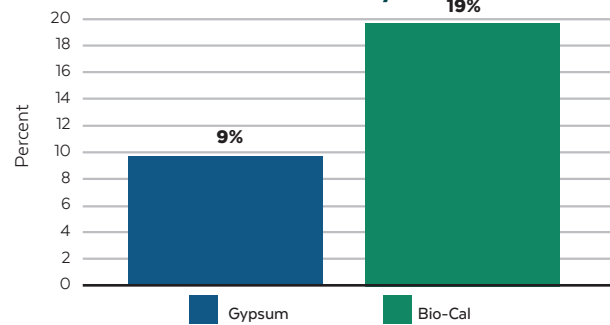


2024 Research Findings

In 2024 we selected 34 Bio-Cal experimental sites, which included 54 soil types among forages and row crops. These sites included manure and dry fertilizer nutrient management systems. With a mean application rate of 500 pounds per acre Bio-Cal.

Historical data on Bio-Cal and Gypsum reported similar improvements in Nitrogen Use Efficiency

Effect of Calcium Soil Amendments on Improved Nitrogen Use Efficiency

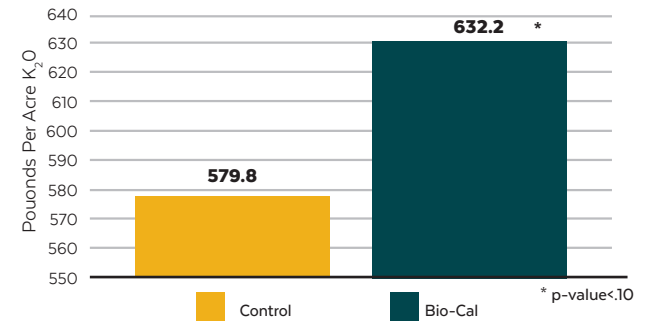


Improved Potassium Efficiency

90% of the Bio-Cal Trials reported improved potassium use efficiency

- 9% increase in soil potassium (lbs/ac).
- 10% increase in base saturation K%.
- 52 pounds per acre K₂O uplift.

Impact of Bio-Cal on Soil Potassium Availability 2023-2024



Bio-Cal improved Manure Use Efficiency and Fertilizer Use Efficiency in Mult-Year SE Minnesota Trial

- Bio-Cal applied two consecutive years.
 - o 500 Lb/A.
- Corn/Soy Rotation.
- Multiple nutrient management strategies.
 - o 15,000 gallons per acre Liquid Dairy Manure (110 Lb/A).
 - o 5 ton per acre dry bed pack and potash.
 - o 148 pounds per acre potash.
- o LIF starter and control.

Comparative Impact of Bio-Cal on Soil Macronutrient Availability for a South Eastern Minnesota Dairy Farm (2024)

