

HydroCal®

Liquid Calcium Carbonate

Liquid lime to adjust pH and deliver calcium nutrition. Micronized calcium carbonate. HydroCal's rapid reactivity corrects acid soils and calcium deficiencies. Can be used in most water run systems.

29% Calcium, 73% Calcium Carbonate, 74% Calcium Carbonate Equivalent

- HydroCal liquid lime is micronized through special wet milling technology
- Ultra fine grade for immediate availability
- Apply through center pivot, solid set or hand line
- Spray apply. Reach your target pH in weeks with reduced application rates and lower input cost
- Safe to handle, non-caustic, will not burn

MICRONA™ - Prilled Lime

Adjust pH and provide calcium nutrition.

Calcium helps release critical nutrients, improves soil structure, and root development. Increases soil microbial activity.

33% Calcium, 82% Calcium Carbonate, 0.6% Magnesium Carbonate, 88% Calcium Carbonate Equivalent

- Flexible application
- Feed stock is high quality, super-fine ground, fast reaction
- Minimum binders – dissolves easily
- Uniform – blends and handles well
- Lower application rates, precision applied
- Safe to handle, non-caustic, will not burn

MICRONA™ Prill - Gypsum

Calcium nutrition without pH adjustment.

Gypsum adds essential calcium and sulfur to soil. Helps leach out harmful salts, improves soil structure.

92% Calcium Sulfate Dihydrate, 21% Calcium, 17% Sulfur

- Flexible application
- Feed stock is high quality, super-fine ground, fast dissolution.
- Minimum binders – dissolves easily
- Uniform – blends and handles well
- Lower application rates, precision applied
- Safe to handle, non-caustic, will not burn

Notes:



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MICRONA™ pH Management and Calcium Nutrition in Your Pulse Crops

Soil pH below 5.5 is a serious concern for pulse crops because soil acidity adversely affects germination, root growth, nodulation, plant vigor, N₂ fixation, limits crop yield and quality.¹ MICRONA™ products not only increase pH in soils, but add plant available calcium for disease resistance, stress tolerance, and supports rhizobium colonization.

Features and Benefits

- Manage pH and calcium in one application.
- Predictable, cost effective calcium nutrition.
- Reduces Al and Mn toxicity.
- Proven soil infiltration to overcome pH stratification; better soil penetration.
- Safe to handle, non-caustic, will not burn.
- Can be applied directly to the seed.
- Measurably improves the economy of growing pulses in crop rotations.



Chickpea Demonstration INW region

Research shows positive crop responses in cool-season grain legumes to liming. Application of MICRONA products in the Inland Northwest region have increased soil pH and calcium availability to the desired levels needed for successful grain legume production.

Results from lime treated and untreated fields in Pullman, Dayton and Davenport, WA were evaluated. Fields were treated prior to seeding.

Trial Results:

- Positive economic impact during first season
- Increase in marketable crop quality
- Earlier maturity, cleaner threshing, improved size and quality

¹ Burns, H., Norton, M. 2017. Topsoil pH stratification impacts on pulse production in SE Australia. GRDC Research Update, At Wagga Wagga NSW

Implementing a liming program before pulse in a pulse/grain rotational cropping system will show the highest benefit for both.

Inland Northwest Chickpea Trial		
	Treated	Untreated
Lime lbs/acre	450 lbs of ultra fine liquid CaCO ₃ (HydroCal®)	Grower standard practice (no lime)
pH at seeding	5.7	4.9
Tissue Al	399 ppm	1,990 ppm
Harvest	2,300 lbs/acre	1,450 lbs/acre
Grade A peas	91%	45%
Yield increase	59%	
Net Return/acre	\$205.00 over untreated (at \$0.35/lb)	

Highlights:

A noticeable increase of nodulation and chickpea root growth in the lime treated fields was observed.

Compared to untreated fields, the treated field matured faster with observed cleaner threshing, higher yields and more “A” grade beans.

Growers with low soil test pH and calcium levels will see significant benefits from the application of MICRONA products, with options to match the fine lime to their application systems and grower practices.

