

# NOVA PEKACID LQ™



**LQ 0-27-9**

Concentrated liquid phosphorus fertilizer  
for calcareous soils and hard water



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# NOVA PEKACID™ LQ 0-27-9

## Concentrated liquid phosphorus fertilizer for calcareous soils and hard water

NOVA PEKACID™ LQ 0-27-9 is a specially tailored P & K fertilizer for fertigation and liquid fertilizer blends under conditions of hard water and/or calcareous soils.

The base material for this liquid fertilizer, NOVA PEKACID™ 0-60-20, is a solid form of phosphoric acid, combining the advantages and efficiency of phosphoric acid with the ease and safety of a solid crystalline fertilizer. NOVA PEKACID™ LQ 0-27-9 is a concentrated (5.11 lbs. of dry NOVA PEKACID™ equivalent per gallon), convenient, ready-to-use solution.

NOVA PEKACID™ LQ 0-27-9 has 100% plant available nutrients, ensuring total availability of applied P and K.

NOVA PEKACID™ LQ 0-27-9 is chloride and sodium free, ideal for the most delicate crops.

NOVA PEKACID™ LQ 0-27-9 is eco-friendly: negligible amounts of heavy metals. No residual contaminants or hazardous residues.

The base material for this liquid fertilizer, NOVA PEKACID™ is a unique patented product, manufactured by ICL's exclusive and proprietary technology.



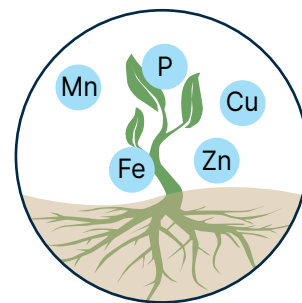
### Low pH

Reduces water pH by being applied directly to hard water.



### Anti clogging action

Provides acidity to neutralize and dissolve bicarbonates, avoiding clogging of pipes and drippers.



### Enhances nutrient uptake

Acidifies the soil environment thus increasing the availability and uptake of phosphorus and micronutrients.

## Agronomic advantages

NOVA PEKACID™ LQ 0-27-9 decreases the pH of applied water as well as soil pH in the zone of application, thus improving nutrient availability and nutrient uptake efficiency, and increasing yields and quality of crops.

NOVA PEKACID™ LQ 0-27-9's acidifying power increases the uptake of many nutrients and helps in releasing fixed micronutrients (Fe, Zn, Mn, Cu) in calcareous/alkaline soils.

NOVA PEKACID™ LQ 0-27-9 supplies the  $\text{H}_2\text{PO}_4^-$  (orthophosphate) ion, which is a readily available form of phosphorus (P). Its acidifying power decreases P fixation, thus improving the uptake of P.

NOVA PEKACID™ LQ 0-27-9 supplies potassium (K) in its valuable chloride-free form like in MKP (monopotassium phosphate) and  $\text{KNO}_3$ .

Integrating NOVA PEKACID™ LQ 0-27-9 in early season applications provides an excellent starter fertilizer, ensuring quick and strong crop development.

Since NOVA PEKACID™ LQ 0-27-9 is a nitrogen-free liquid fertilizer, it allows full and independent control over the N level in the fertigation program, either by choosing the best form of complementary N or by refraining from N application, in accordance with the requirements of the crop.

NOVA PEKACID™ LQ 0-27-9 is compatible with calcium (Ca) and magnesium (Mg) fertilizers. Usually, P fertilizers cannot be mixed with Ca and Mg containing fertilizers and therefore, two fertilizer tanks should be used or P and Ca/Mg should be applied at different times. NOVA PEKACID™ LQ 0-27-9 allows mixing with Ca and Mg fertilizers in a liquid NPK formulation, due to its low pH which avoids the precipitation of insoluble Ca/Mg phosphate compounds.







## Keep the system clean

NOVA PEKACID™ LQ 0-27-9 provides acidity to neutralize and dissolve bicarbonates in irrigation water, thus avoiding the problem of scaling and clogging of pipes and emitters/ nozzles in irrigation systems:

- Longer lifespan of the irrigation system.
- Uniform and efficient distribution of irrigation water and fertilizers.
- Less work needed.
- No additional acid needed.

The increased longevity of drip irrigation systems is an additional, special benefit when applying NOVA PEKACID™ LQ 0-27-9 with SDI (subsurface drip irrigation).

When used at a higher rate, NOVA PEKACID™ LQ 0-27-9 can also dissolve/disintegrate existing carbonate deposits from calcium carbonates or calcium and iron phosphates.

NOVA PEKACID™ LQ 0-27-9 can replace alternative concentrated P fertilizers such as phosphoric acid, MAP, MKP and urea phosphate, and become the only P source for fertigation.



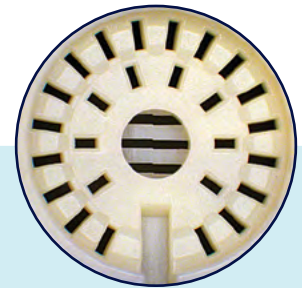
### Blocked

Blocked dripper due to precipitates formed while using hard irrigation water.



### Cleaning

Dripper being cleaned while using NOVA PEKACID™ LQ (precipitates are dissolved).



### Unblocked

Cleaned, unblocked dripper after using NOVA PEKACID™ LQ.

## NOVA PEKACID™ LQ 0-27-9 as a nutrition source in fertigation

Add NOVA PEKACID™ LQ 0-27-9 at a rate of 0.15-0.65 gallons per 1000 gallons, based on crop-specific needs and environmental conditions. Avoid mixing NOVA PEKACID™ LQ 0-27-9 with thiosulfate-based products. Fertigation with NOVA PEKACID™ LQ 0-27-9 increases the availability of other nutrients including micronutrients due to its acidifying properties.

## NOVA PEKACID™ LQ 0-27-9 as an acidifier for irrigation system cleaning

Apply 6-8 gallons of NOVA PEKACID™ LQ 0-27-9 per 1000 gallons of water within 15 minutes of irrigation. Continue to irrigate for at least 15 more minutes with clean water. For example, at an irrigation rate of 10,000 gallons per hour, 2500 gallons are passing through the system within 15 minutes. Inject 15-20 gallons of NOVA PEKACID™ LQ 0-27-9 into the irrigation water within the first 15 minutes of the irrigation cycle.

## NOVA PEKACID™ LQ 0-27-9 as a pH buffer of the fertigation solution

It is recommended to keep 30-50 ppm bicarbonate in the irrigation water, for buffering the water to approximately pH 6.0. Under these conditions - NOVA PEKACID™ LQ 0-27-9 at a rate of 0.15 gallons/1000 gallons of water will neutralize 61 ppm of bicarbonate. NOVA PEKACID™ LQ 0-27-9 should be applied based on the bicarbonate level of the specific water. The table below indicates the amount of NOVA PEKACID™ LQ to be added with different water quality analyses, and the P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O nutrition contribution for each level. It is based on a target of approximately pH 6.0. The density of PeKacid™ LQ 0-27-9 is approximately 11.2 pounds per gallon, containing approximately 3.02 pounds P<sub>2</sub>O<sub>5</sub> and 1.01 pounds K<sub>2</sub>O per gallon.

meq. bicarbonate in source water	ppm bicarbonate in source water	meq. bicarbonate to be neutralized	Gallons NOVA PEKACID™ LQ /1000 gallons	P <sub>2</sub> O <sub>5</sub> (lbs) from NOVA PEKACID™ LQ	K <sub>2</sub> O (lbs) from NOVA PEKACID™ LQ
0.5	31	0.0	0.00	0.00	0.00
1	61	0.5	0.07	0.22	0.07
1.5	92	1.0	0.15	0.46	0.15
2	122	1.5	0.23	0.68	0.23
2.5	153	2.0	0.30	0.91	0.30
3	183	2.5	0.38	1.14	0.38
3.5	214	3.0	0.45	1.36	0.45
4	244	3.5	0.53	1.59	0.53
4.5	275	4.0	0.60	1.82	0.61
5	305	4.5	0.68	2.04	0.68



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