

PRO pH ADJUSTERS

Professional-grade pH Adjusters

Use Pro pH UP or Pro pH DOWN to effectively adjust the pH of nutrient solutions or irrigation water. General Hydroponics Pro pH adjusters are highly concentrated and available in commercial sizes.



HOW PRO pH ADJUSTERS HELP



CHALLENGE:

Did you know that traditional mineral acids/bases add nutrients to your nutrient solutions? When it comes to hydroponics nutrients, proper nutrient balance is key. Excess nutrients (or unbalanced nutrient ratios) can often do more harm than good by reacting with other nutrients or limiting nutrient uptake due to nutrient antagonisms. It's important to find pH adjusters that will not interfere with nutrient balances.

SOLUTION:

General Hydroponics Pro pH UP and pH DOWN will not add extra nutrients, ensuring carefully constructed nutrient recipes are maintained at all stages of growth. This is because of our unique formulations, which do not use mineral acids and bases.

CHALLENGE:

Professional-strength pH adjusters are a must for professional growers, but can be difficult to find in commercial sizes.

SOLUTION:

General Hydroponics Pro pH UP and pH DOWN are nearly 3x as concentrated as our hobby/retail versions, and available in convenient sizes for growers of all sizes!

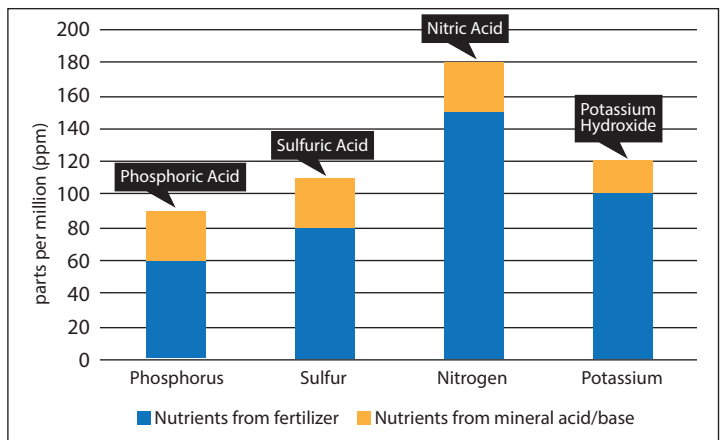


Fig. 1 The potential effect of adding various mineral acids/bases to a typical nutrient solution. Individual results will vary based on water quality and desired pH. Results above based on moderately hard water and moderate fertilizer charge. Results based on UNH coop extension Alkalinity Calculator: gardeningohio.net/alkcalc.htm

CHALLENGE:

Harsh acids and bases can be a safety and regulatory concern.

SOLUTION:

General Hydroponics Pro pH UP and pH DOWN are non-corrosive (UP is also non-caustic) and carry a zero rating for all HMIS categories, making them much safer to use than traditional mineral acids and bases. They are not HAZMAT listed like many competitive products, making them safer to use.

HMIS®	
Hydrogenated Water	
HEALTH	/ 0
FLAMMABILITY	0
PHYSICAL HAZARD	0

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HOW TO USE

TIPS AND TRICKS:

- 1 We recommend thoroughly mixing your nutrient solutions, allowing for solutions to stabilize in pH. Make a note of which direction you need to adjust solution pH—up or down.
- 2 General Hydroponics Pro pH UP and DOWN can be used directly from the container, undiluted.
- 3 Slowly add Pro pH UP or pH DOWN to the solution until the desired pH is achieved.
- 4 Record the total volume of acid/base needed for your records.
- 5 The recorded volume can now be used to accurately adjust the pH of the nutrient solution or source water moving forward.

TABLE 1: GENERAL pH RANGES FOR HYDROPONIC AND FIELD SOIL SYSTEMS

Growing Media/Solution	pH Range
Liquid Culture Hydroponics	5.5-6.0
Stone or Mineral Wool	5.5-6.0
Coco Coir	5.7-6.3
Peat Professional Mixes	5.8-6.5
Potting Soil	6.0-6.5
Field Soil	6.0-6.8

NOTE: Because conditions and requirements vary between environments, use rate recommendations also vary. Therefore, the amount of Pro pH UP or pH DOWN required to adjust the final solution pH to within an acceptable pH range will also vary.

AVAILABLE SIZES:



At General Hydroponics, we've been making—and perfecting—hydroponic cultivation formulas for more than 40 years.

For more information, or to download feedcharts, visit:
generallyhydroponics.com



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