



**GENERAL HYDROPONICS®**

# FLORAPRO®

**CALCIUM + MICROS • GROW • BLOOM**



## PRODUCT GUIDE

**WATER-SOLUBLE FERTILIZERS FOR COMMERCIAL GROWERS**

# GAME-CHANGING NUTRITIONAL SYSTEM FOR COMMERCIAL GROWS



**For decades, water-soluble fertilizers (WSF) have been the standard for commercial greenhouse production, designed for the nutritional needs of traditional agricultural plants like tomatoes, cucumbers, lettuce, ornamental crops and more.**

These formulas make consistent feeding of large-scale horticultural crops easier, less expensive and more scalable than bulky liquid products.

**But times change.** Indoor production systems are rising in popularity, impacting nutritional needs. Plant types and varieties are evolving. The nutritional systems used to feed them should, too.

**That's why there's FloraPro®.** With the expertise of industry-leader General Hydroponics®, our team of horticultural plant nutrition specialists devised this plant nutrition system, adapted to accommodate both indoor and greenhouse cultural systems. Unlike other formulas, which were designed for the nutritional needs of crops like tomatoes, cucumbers, lettuce or peppers for greenhouse production, FloraPro blends a more preferred ratio of nutrients for high value production crops including hemp, cannabis, and vegetable varieties.

# WHAT IT IS

## THREE BAGS, ONE SYSTEM

Calcium + Micros provides a solid base throughout, Grow gives crops what they crave during the vegetative stage, and Bloom supports specific nutritional needs during flowering. If a plant has only a vegetative stage—easy. Use only Grow.

1

2

3



### CUSTOMIZABLE

With FloraPro®, you can “flex” the amount of each component or the total amount of nutrients supplied to achieve your particular goals.



### STRATEGICALLY SIZED FOR LARGE-SCALE CULTIVATORS

Packaged in convenient 11.3 kg (25 lb) and 2.3 kg (5 lb) bags for commercial stock tanks and injection systems.



### LESS COMPLICATED

Many other programs require four or more products. FloraPro® uses only three.



### NEW, MORE CONCENTRATE FORMULA!

This means you use less fertilizer to achieve your targeted nutrient delivery while keeping the nutrient ratios that make FloraPro® perform.



### SCALABLE AND AFFORDABLE

Our goal is the same as yours: to save you time and money as your operation grows.

# WHY IT'S DIFFERENT

1. **DEVELOPED BY THE BEST.** Through General Hydroponics® we've been making—and perfecting— formulas for more than 40 years.
2. **GEARED TOWARD INDOOR AND GREENHOUSE CROPS.** Unlike other formulas, which were designed for the nutritional needs of crops like tomatoes, cucumbers, lettuce or peppers for greenhouse production, FloraPro blends a more preferred ratio of nutrients for high value production crops including hemp, cannabis, and vegetable varieties.
3. **HIGH-QUALITY INPUTS, EVERY TIME.** No fillers. No contaminants. Just high-quality nutrients made from quality controlled water-soluble ingredients, so you can be confident about what you're pushing through your irrigation system.
4. **WE TELL YOU WHAT YOU GET.** A rate is not good enough. We tell you exactly which nutrients you get when you use our product.

## BENEFITS

### PERFECTLY BALANCED FOR YOUR CROPS

When it comes to nutrients, more is not always better. Plant nutrition is all about balance. Minerals must be properly proportioned for plants to use them effectively. And not all plants require the same proportions.

That's why, unlike other commercial nutrients, the FloraPro® formula blends a more preferred ratio of nutrients for high value production crops including hemp, cannabis, and vegetable varieties. Some brands simply take an existing formula, intended for greenhouse tomatoes, for example, and recommend it for other crops. We don't.

FloraPro® was designed from the ground up, formulated specifically with the amounts of phosphorous, potassium, and other essential nutrients that crops grown in controlled environments, whether in indoor grow rooms or greenhouses require.

### FloraPro® formulation features:

- Balanced nutritional profile
- Tailored to nutritional demands during vegetative or flowering and maturation phases
- Precise set of ratios gleaned from extensive research and development

## THE POTENTIAL PROBLEM AND THE FLORAPRO® SOLUTION

An overabundance of one nutrient leads to difficulty in uptake or utilization of another, resulting in nutritional deficiencies, or “nutrient antagonism.” Balance is critical. FloraPro® is designed to create the right balance of nutrients that promotes uptake and utilization of other nutrients, or “nutrient synergism.”

**TABLE 1.**  
**SELECTION OF COMMON NUTRIENT ANTAGONISMS OFTEN FOUND IN**  
**HORTICULTURAL PRODUCTION**

IF EXCESSIVE IN MEDIA OR TISSUE:	MAY CAUSE A DEFICIENCY OF:
Nitrogen (as ammonium- $\text{NH}_4^+$ )	Potassium, Calcium, Magnesium
Potassium ( $\text{K}^+$ )	Nitrogen ( $\text{NH}_4^+$ ), Calcium, Magnesium
Phosphorous ( $\text{H}_2\text{PO}_4^-$ , $\text{HPO}_4^{2-}$ )	Iron, Zinc, Copper, Calcium
Calcium ( $\text{Ca}^{+2}$ )	Potassium, Phosphorous, Magnesium, Boron
Magnesium ( $\text{Mg}^{+2}$ )	Calcium, Potassium
Iron ( $\text{Fe}^{+2}$ )	Manganese, Zinc, Copper

Adapted from "Water, Media and Nutrition for Greenhouse Crops," Ball Publishing, Batavia, IL, 1996

## COMPATIBLE WITH OTHER NUTRIENTS

While FloraPro® is a complete nutrition program, supplements can be used for additional benefit. FloraPro® was designed to be compatible with existing Hawthorne Gardening company speciality supplements.



# PROFESSIONAL TECHNICAL SERVICES

## PLANT NUTRITION

Our holistic approach to plant nutrition takes into account environmental conditions, growing media, water quality and your cultivation practices to create a nutritional regimen customized for your crop and facility.

We also offer pilot trials so you can see the difference—and feel confident in the results—before making the switch.

### Comprehensive consultations include:

- Starting water quality
- Environmental conditions like lighting, humidity, temperature and CO<sub>2</sub> enrichment
- Physical properties of growing media
- Fertilizers: base programs and additives
- Fertilizer delivery/irrigation systems

## CONTACT

Contact **Hawthorne Professional Technical Services** today and let us design a customized fertility program to help you optimize growth and improve performance.

### Technical Services

[tsupport@hawthornegc.com](mailto:tsupport@hawthornegc.com)

or call: (888) 808-4826

For more information on which nutrient combination is right for your crop, contact:

### Hawthorne Customer Service

**Toll Free:** 888.478.6544

**Local:** 360.883.8846

### Canadian Customer Service

**Toll Free:** 844.200.4769

**Local:** 604.541.0676

### Hawthorne Sales

**CONTACT**

<https://www.hawthornegc.com/page/contact#contact>





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**HAWTHORNE GARDENING<sup>™</sup>**  
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Manufactured for Hawthorne Hydroponics LLC, a subsidiary of  
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