



## PLASMA ACTIVATED WATER: THE NEWEST TOOL FOR GREENHOUSES AND HIGH VALUE CROPS

PAW is the “Swiss Army Knife” of agriculture according to the American Society for Horticultural Sciences (ASHS).

PAW shows usefulness to influence seed germination, stimulating plant growth, increasing tolerance to plant stressors, reducing soil-borne pathogens, boosting natural plant defenses and fertilizer production, according to the ASHS.



## DIGGING INTO THE DATA

### 1.) Improved yield and nutrient uptake

A Springer Nature study found that PAW irrigation significantly improved seedling development in tomato plants, increasing cotyledon area by up to 4-times and seedling biomass by up to 3.6 times compared to the untreated control. During the reproductive phase, PAW treatment doubled the number of flowers and increased chlorophyll content and leaf area. At harvest, PAW irrigation led to a 3x increase in fruit numbers and up to a 3.9x increase in plant biomass. The characteristics of fruits produced by PAW-treated plants were normal.

Resource: <https://link.springer.com/article/10.1186/s12870-025-06701-9>

### 2.) Plant defense and disease suppression

According to the National Library of Medicine, PAW triggers plant defense responses by upregulating genes in major defense pathways, enhancing resistance to pests and diseases

Resource: [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/).

### 3.) PAW enhances tomato growth and plant Defense

A study published by Frontiers found PAW irrigation improved tomato seedling growth, increased antioxidant activity, enhanced photosynthesis and activated natural plant defense genes. PAW-treated plants also showed improved resilience to viral infection and better nutrient distribution, highlighting its potential as a sustainable tool for crop health and stress management.

Resource: <https://www.frontiersin.org/journals/physics/articles/10.3389/fphy.2024.1399910/full>

# THE PLASMA BLUE DIFFERENCE



## EASY TO OPERATE

- PUSH BUTTON OPERATION
- CUSTOM DESIGN FOR YOUR LOCATION
- SCALABLE TO YOUR OPERATION



## NO CHEMICAL RESIDUE

- NO CHEMICALS OR GASSES ADDED TO THE PROCESS
- YOUR PH BALANCED WATER ONLY



## SAFE TO HANDLE

- GENERALLY REGARDED AS SAFE (GRAS) CERTIFIED



## INEXPENSIVE

- TO PURCHASE
- TO OPERATE



*Plasma Blue's L6F unit can produce up to 3 liters/hour*



*Plasma Blue's C300 unit is scalable to your needs if additional output is required*

Call us to schedule an appointment

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