

Precise Control Over Hydroponic Plant Growth



PERCIVAL



Hydroponic Plant Growth Plus Environmental Control

Now, you can harness the power of hydroponic plant growth and precise control of light, humidity, temperature and CO₂ in one Percival Scientific chamber.

We've developed the first hydroponic nutrient film technique (NFT) system that integrates seamlessly with controlled environment plant growth chambers.

Designed for leafy greens, berries, tomatoes, herbs and other fruits and vegetables, our stainless-steel NFT system is a built-in option for two of our most popular models: the LED-41L2 (SciBrite®) and E-41L2 (SciWhite®).

How Our Hydroponic NFT System Works

Our hydroponic NFT system features two shelves of water channels, each accommodating 16 plants for a total of 32. Nutrient-rich water circulates continuously through the channels from a reservoir at the bottom of the chamber, submerging the root systems. Convenient ports allow for hassle-free monitoring of water quality. And the durable stainless-steel components easily disassemble, making our system simple to clean and maintain.

Our NFT system offers several advantages for plant growth:

- Targeted nutrient delivery with better absorption than soil
- Increased oxygen intake for higher yields
- Easy root monitoring for plant health
- Water conservation
- Space efficiency



Advanced Nutrient Delivery Studies

Our LED plant growth chambers with the hydroponic NFT system provide the most controlled environment for nutrient delivery studies, including focuses on:

- **Nutrient formulas** – researching combinations of nutrient compounds for their impact on absorption and performance
- **Nutrient timing** – determining how often and when to apply nutrient compounds during the crop lifecycle to optimize yields and crop quality
- **Nutrient ratios** – balancing ratios of nutrient compounds for the best results in certain crop varieties
- **Nutrient deficiencies** – tracking the visible effects of nutrient deficiencies, including root analysis, to better identify and prevent nutritional issues

Our NFT system also supports:

- Trialing new crop varieties
- Root system studies
- Plant stress response research
- Growth material comparisons
- Water conservation studies



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Small-Scale Crop Trialing With Adjustable Variables

Previously, hydroponic crop trials lacked strict control of the surrounding environment. Percival's NFT system, combined with the capabilities of our LED plant growth chambers, lets you fine-tune trials by adjusting variables such as light intensity, light spectrums, light duration, temperature, humidity and CO₂ levels. Think of these chambers as micro greenhouses that help you select the most optimal crop varieties and then scale up the ideal conditions for them to thrive.

With the wide range of controlled variables, researchers can enhance the qualities of hydroponic crops, including:

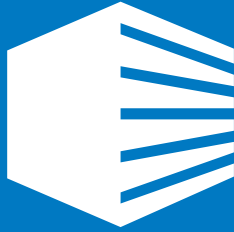
- Coloration
- Taste profile
- Visual appearance
- Nutritive value



SciWhite
by Percival Scientific



E-41L2 Hydroponic



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We're Here to Help You Get Started

We're committed to helping growers achieve their goals.
Share your desired results, and we'll provide
tailored support, including recommended nutrient
and pH levels for your crop varieties.

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