

Paolo Andreatta



KEY-WORDS:
 HYDROPONICS – CONTROLLED
 ENVIRONMENT AGRICULTURE - BASIL

PROJECT TITLE

Optimization of basil production and development of sensor-based control strategies for an intelligent greenhouse

Steps of the research

- Systematic literature review on the impact of environmental factors in CEA, with special focus of Speaking Plant Approach strategies for improve yields and quality of the crops.
- Development of new sensors for evaluate crops performance in real time.
- Conduct a series of agronomic trials aimed at understanding the response of the crops to varying growth conditions. The developed sensors will be used to get feedback on the response of the crops.

Main Results

Create new sensor based on a gas exchange chamber system, useful for monitoring in real time the grow performance of the plants.

Research Contribution

Maximization of crop net photosynthesis is one of the most important objectives in CEA. However, the extent of the contribution to the crop photosynthesis is not always clear. To reach the appropriate environmental control, measurement of photosynthetic rate is important to monitor the plant physiological status and performance of assimilation. The development of a real time gas chamber system can be a useful tool to understand association between canopy-scale photosynthesis and growth.

Why should you care?

Optimization in CEA, reducing energy inputs and increasing yields, will be the key to producing food in a more sustainable way, offering a valid alternative to the

PROFILE

I am a third-year Executive PhD student with interest in Controlled environment Agriculture. I work as greenhouse Crop Manager at Human's Garden (Adro, Brescia)

AFFILIATION

Department of Sustainable Crop Production (DI.PRO.VE.S.)
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LANGUAGES



Mother language



Level B2

HOW TO REACH ME

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