



CE-LINE – REAL-TIME MEASUREMENT OF NUTRIENT CONCENTRATIONS

Problem – Challenge

Traditional greenhouse agriculture faces significant hurdles in maintaining optimal nutrient levels. Conventional methods of monitoring nutrient concentrations in irrigation and drain water are labor-intensive, prone to error, and lack real-time insights. Inaccurate nutrient management can lead to suboptimal plant growth, nutrient wastage, and environmental concerns such as leaching. Growers struggle to balance nutrient inputs effectively, resulting in inconsistent crop yields and resource inefficiency.

Solution

CE-Line, which was developed by CE-Line B.V. in collaboration with the University of Basel (Prof. Peter Hauser) presents a groundbreaking solution to the challenges of nutrient management in greenhouses, leveraging advanced Capillary Electrophoresis technology.

CE-Line utilizes a small capillary with a potential difference to separate nutrients in irrigation and drain water. It measures the concentration of all individual nutrient components fully automated without human interference. The data are shared with the cloud and with climate control systems in the greenhouses, for use of automated irrigation and fertilization.

CE-Line empowers growers to optimize fertilization strategies and achieve optimal plant growth in greenhouse agriculture.

