

# Plant Empowerment Advanced Course

📅 Wednesday March 29 - Thursday March 30

The two-day advanced course is intended for attendees of last year's course and other growers who already have basic knowledge of, or execute, the Plant Empowerment principles. On these two days, a comprehensive program is being offered. Participants can heighten their understanding thanks to various in-depth knowledge sessions about the philosophy and how to apply it in practice.

## Optional topics that are potentially being covered

During the advanced part of the course, participants can follow multiple sessions, depending on their own interests. At registration, participants can select 10 of the topics below on which they prefer to gain more knowledge.

- **Increase the value & performance of your greenhouse via data**  
Generate and collect data is essential for increasing the performance of your facility. Which sensors do I need and how to visualize data in order to create a helicopter view of my greenhouse will be some of the questions answered during this session.
- **Supporting the irrigation strategy with sensors & artificial light**  
Stirring your strategy by numbers is easily said. But what type of sensors are available and what do those figures tell us? And do we need more than only wet sensors in the rootzone? We will also discuss the different types of artificial light and different ideas about irrigating when using artificial light. Which strategy is the right one? What are the attention points?
- **Everything you need to know about water quality**  
Water quality is a primary condition for a good and healthy crop. But what is water quality exactly and how can you steer it? In this session we discuss salts, carbonates, oxygen and other factors that influence water quality.
- **Do's and Don'ts in Absolute Humidity**  
Absolute humidity is still a difficult parameter in greenhouse climate control. During the session we will explain what it tells you and how you can use it.
- **Climate effects when changing HPS to LED**  
When an artificial lighting installation is changed from HPS to LED, a lot changes for the plant. What is exactly changing and what to do to maintain the optimal climate for the plant.
- **Leaf temperature is more important than greenhouse temperature**  
Within Plant Empowerment, we always try to listen to the plant. One of the measurements we have is plant temperature. In this session we discuss the difference between greenhouse and plant temperature and what plant temperature tells us.
- **Substrate properties (big 6) with a focus on oxygen**  
What is all happening in the rootzone? Water-content and EC are often discussed. In this presentation we will discuss the big 6 and dive more in depth to what oxygen is doing for the plant.
- **From fertilizer schedule to healthy plants & the (non)sense of bio-stimulants**  
What are the rules of a fertilizer schedule and how do those rules influence plant health? Do we supply what a plant needs or are we always under or over-supplied? During this session, we will also discuss the main ingredients of bio-stimulants and the optimum timing in order to get a good result
- **Screens, screen gaps, air movement and insulation values**  
Screens have a great impact on the climate in the greenhouse. During the session we will explain how to get the best out of your screen, when to apply screen gaps and how to use air movement to bring extra activity to the crop. And due to increasing energy costs, we see the interest of better isolating screens increasing. But what are the influences on climate and the plant with "closer" screen?
- **Increase plant performance via coatings**  
The current market has multiple coatings available. During this session we discuss different coatings, how they effect the growth of the crop and how you as a grower choose the optimal coating for your situation.
- **How to create a crop, climate & irrigation strategy (high wire crops)**  
The most important process before you start your new crop cycle is to create your goals regarding climate, crop and irrigation. Can I create accurate goals by spending less than 1 hour?
- **How to get the maximum output of your crop (genetics) using data (cucumbers & tomatoes)**  
At BASF they want to get the most out of our genetics. In order to do this they are already applying the principles of Plant Empowerment for a couple of years in lettuce, tomatoes and cucumbers. During the session they will explain what they did and what they achieved the last couple of years.
- **Plant Empowerment in Floriculture**  
Floricultural products always have to be beautiful and of spotless quality, to avoid trial and error mistakes we will share some learned lessons that floriculture growers already experienced while applying the principles of Plant Empowerment. This will save you time and cost in avoiding any possible mistakes.
- **Plant Empowerment in Propagation**  
During the propagation stage plants a plant are really vulnerable to the given growth conditions. Create he best possible head start by joining this session. We wil focus on the both warm or cold propagated plants, grown on floors and/or tables.
- **Strawberries in organic substrates & growing strawberries without mildew**  
Strawberries are often grown in an organic substrate. What is the best mix for a strawberry crop? How to irrigate the crop? And how to supply the right minerals? A lot of interesting questions that are discussed during this session. We will also discuss mildew, since this is an increasing problem in strawberries. Besides the right climatical conditions, a susceptible host is also necessary for successful infestations. Can we influence both processes?