

HiPerGreen Newsletter 4

17th April 2019



On April 12th, researchers, students and consortia gathered at the World Horti Centre for an update on the overall status of the HiPerGreen project. This was the 3rd quarter meeting of the 2 year research project. The day consisted of presentations from a variety of the HiPerGreen students, staff and guest speakers. There were a variety of exciting updates from the technological and biological realms of the project, as well as an insightful presentation from Deliflor's Geert Van Geest on Deliflor and their interests in imaging of chrysanthemums.



Technology



Several exciting new pieces of technology have arisen from the HiPerGreen project. The first being a rail-based imaging system capable of traversing the greenhouse using the heating pipes commonly found in Dutch greenhouses. This system is designed for simplicity and ease of use, with the potential to be used as either a research tool or a mass measurement device.

The drone landing dock has also taken great steps forward, with a newly designed landing dock being manufactured as we speak. The students working on this project have successfully reduced the size, weight and energy requirements of original, making the new version much more practical. Finally, HiPerGreen has partnered with drone manufacture Avular, a company working on the world's first 'ultra-wide band' localized indoor drone. We now have our hands on one of the very first models and hope this drone will help accelerate our automation of drone navigation inside the greenhouse. More updates will be coming over the next 6 months drone automation inside greenhouses.

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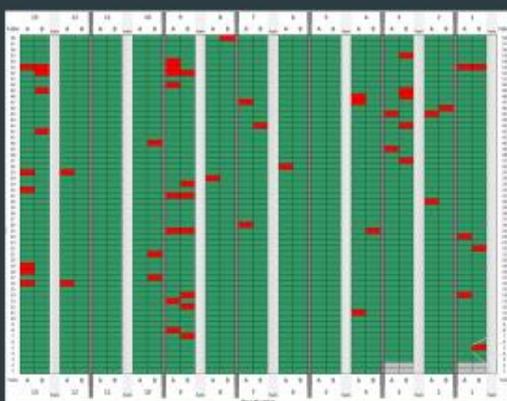
Biology

From a biological standpoint significant progress is also being made. Long-term plant monitoring is now taking place in several orchid greenhouses in south Holland, with a focus on reducing fusarium occurrence in the crop. Students are working in climate chambers to model the symptoms of fusarium infection in orchids. Students are also working at Deliflor using the railsystem to measure uniformity in chrysanthemum test crops.



Finally a relatively new partner of the HiPerGreen project, DB2 Vision, have given us access to their multispectral camera. This specialized camera is helping us explore wavelengths beyond the human eye and assess plant health in new ways. We hope this multispectral imaging will be integrated into mass plant monitoring in the near future.

Data Presentation



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Dissemination

The HiPerGreen symposium on Friday 12th April 2019 marked the 16th knowledge dissemination event!

1. Kivi Engineering Award – Q4 2017
2. Floricode – Q4 2017
3. Plantarium Award – Q1 2018
4. Wellant College Drone Workshop – Q1 2018
5. HiPerGreen 1st quarter symposium at WHC – Q1 2018
6. Greenport West Holland – Q2 2018
7. Rotterdam Innovation Expo – Q3 2018
8. HiPerGreen 2nd quarter symposium at WHC – Q3 2018
9. World Horti Centre – EU Fresh Info Forum – Q4 2018
10. Innovation Lab opening – Q4 2018
11. Jungle talks – Q1 2019
12. Yes!Delft community presentation – Q1 2019
13. Shell & Accenture – Q1 2019
14. InHolland Symposiumn Tuinbow 2030 – Q1 2019
15. Hortiheroes – Q1 2019
16. HiPerGreen 3rd quarter symposium at WHC – Q2 2019

