Depart-ment	Photosynthesis g CO2 m^{-2}	Energy heating Wh m^{-2}	Energy lighting Wh m^{-2}	Light use efficiency G kWh^{-1}
A	1289	2400	1289	75.6
B	250	2000	2004	18.0
C	730	1800	2500	62.5
D	700	1500	1800	71.4

Info Grow 2.0™

An online tactical tool for the greenhouse manager

InfoGrow 2.0™

Visualization of data brings valuable insight about your production.

IG

With InfoGrow 2.0™ you gain real-time performance indicators for plant photosynthesis and plant growth. With this information, you can adjust set-points for climate parameters to optimize plant production growth on a daily basis.

InfoGrow 2.0™ has a log system that can be customized to your needs.

You can register and report for example application of biological or chemical pest control, product quality or development, or production parameters before transferring plants to another department.

Data logged in InfoGrow 2.0™ can be used to document and optimize your production.

InfoGrow 2.0™ uses data directly from the climate computer to model plant photosynthesis, climate, and energy. This makes InfoGrow 2.0™ unique as there is no need for costly installation of new sensors or fancy equipment.

The summary view displays data from all your climate zones and uses colors to indicate where you have to focus.

InfoGrow 2.0™

All departments in one screen

Colors indicates what needs your attention

Greenhouse Compartments			Degree Sum (°C)	Indoors light sum (mole/m² leaf)	Photosynthesis sum (g CO2/m²)	Ligth use efficiency (g/kWh)	Avg. Pn Activity (g/h/m² leaf)	Heating (Wh/m² per day)	Growth light (Wh/m² per day)	Avg. Humidity (%)	Avg. Temp. (°C)	Avg. CO2 (ppm)
Hus 1 A/B - Afd	🏛	◷	177/192	401/200	18/24	11	0.1	3456	201	70	22.1	626
Hus 2 - Afd	🏛	◷	157/192	391.7/320	25/24			729	0	60	19.7	2033
Hus 3 - Afd	🏛	◷	156/192	391.7/320	16/24			4368	0	66	19.5	551
Hus 4 øst/vest - Afd	🏛	◷	168/192	395.2/320	14/24	22.3	0.1	9009	77	60	21	312
Hus 5 - Afd	🏛	◷	151/192	391.7/320	8/24	0	0	0	0	72	18.8	272
Hus 6 - Afd	🏛	◷	178/192	392.1/320	18/24	160.6	0.1	2594	9	44	22.2	784
Hus 7 - Afd	🏛	◷	163/192	392/320	16/24	260	0.1	577	8	56	20.4	646
Hus 8 - Afd	🏛	◷	171/192	392.2/320	13/24	164.9	0.1	652	10	62	21.4	498
Hus 9 - Afd	🏛	◷	168/192	392.6/320	15/24	98.2	0.1	4846	19	70	21	435
Hus 10 - Afd	🏛	◷	162/192	392.1/320	11/24	156.1	0.1	775	10	69	20.2	413
Hus 11 - Afd	🏛	◷	164/192	392.1/320	12/24	192.8	0.1	0	8	61	20.5	487
Hus 12 - Afd	🏛	◷	163/192	392.2/320	9/24	115.4	0	589	11	66	20.4	357
Hus 12A - Afd	🏛	◷	171/192	391.7/320	18/24	0	0.1	0	0	56	21.4	0
Hus 14 - Afd	🏛	◷	163/192	392.3/320	28/24	350.9	0.2	10756	13	59	20.4	0

Tooltip (over Hus 2 row): Days: 8 / Value is high / Last day value: 20.1 / Optimal value between: 7 and 12

Select the information parameters you need:
- Days to harvest
- Cost efficiency
- Energy for heating
- Energy for artificial lighting
- Photosynthesis
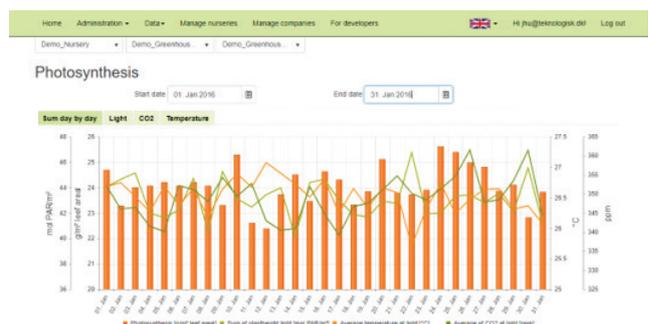
IG

Legend: Sum of plantheight light [mol PAR/m²] | Total light from lamps [mol PAR/m²] | Nursery heat energy [MWh] | Nursery light energy [MWh] | Natural [mol PAR/m²] | Sum of outside light [mol PAR/m²] | Avg last 5 days [mol PAR/m²]
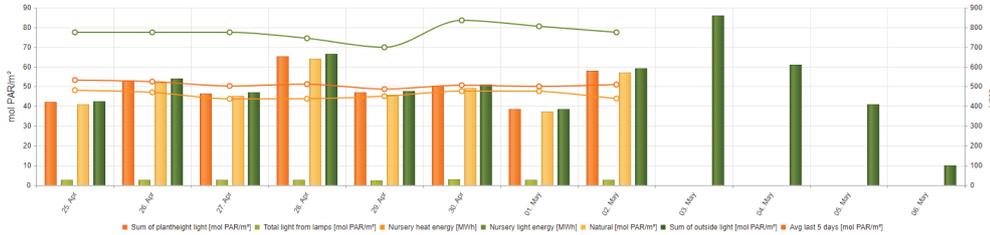
Optimize the light strategy based on daily light integral plant level and local weather forecasts.

Photosynthesis

Start date: 01. Feb 2017   End date: 08. Feb 2017

Current Conditions			Conditions for selected period		
Photosynthesis		%	Average photosynthesis		%
Photosynthesis		g/h/m²	Total photosynthesis		g/m²
Outside light		µmol PAR/(m²s)	Sum of outside light		mol PAR/m²
Plantheight light		µmol PAR/(m²s)	Sum of plantheight light		mol PAR/m²
Measured CO2		ppm	Total light from lamps		mol PAR/m²
Temperature		°C	Average temperature		°C
RH		%			

In the detailed view you can follow a parameter in a selected time frame

Sum day by day | Light | CO2 | Temperature

Legend: Photosynthesis [g/m² leef areal] | Sum of plantheight light [mol PAR/m²] | Average temperature at light [°C] | Average of CO2 at light [ppm]
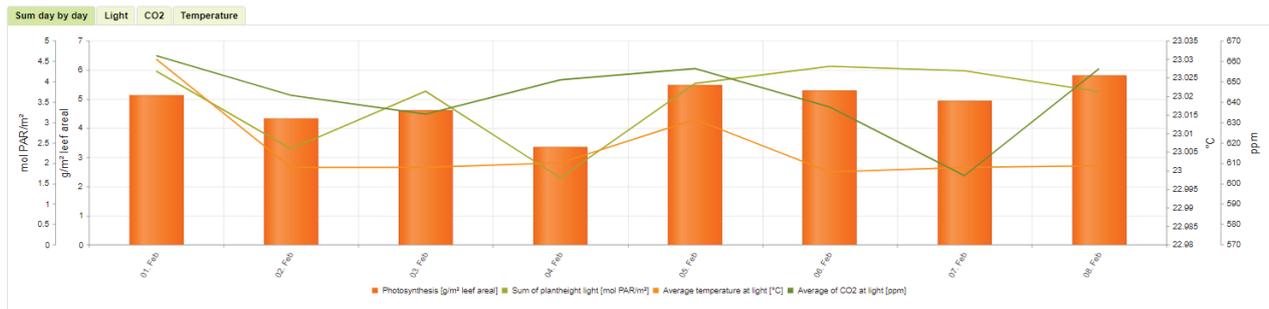
Advantages using InfoGrow 2.0™

With InfoGrow 2.0™ you can:

- See new perspectives of your plant production.

- Keep an eye on the photosynthesis and optimize the climate to optimize your production.

- Follow the use of energy for all departments and in high resolution without the need to install sensors.

- Quickly detect deviations from the norm.
  This could be open vents or screens in odd situations.

- Log, report, and document application of biological or chemical pest control

- Compare production time with the climate and time your valuable production even better than today.

- Export data to the Virtual Greenhouse to improve your production even more.

Via a central server and special security routines, InfoGrow 2.0™ logs real-time climate data from the nursery's climate computers and transfers this to a database. InfoGrow 2.0™ then subjects the data to calculations in advanced photosynthesis and climate models, before displaying the results.

InfoGrow 2.0™ is safe to use and has specific user and password protected access.

The main objective of **HortiAdvice** is to provide consultancy, research, and development as well as other activities related to the horticultural industry.

Our activities are performed in all the aspects of the crop production, as well as in finance, management, technology, and subsidy schemes, in order for the producers to get the best possible basis for decisions regarding the production and development of their company. The advice is offered both as individual advice as well as collective.

The Company itself or in collaboration with other organizations participate in research and development projects within the horticultural industry. These projects will comply with generally recognized international standards for good research practice.

CONTACT:

Jesper Mazanti Aaslyng
+45 24 75 40 37
jeaa@HortiAdvice.dk

Katrine Heinsvig Kjær
+45 3029 6592
kkja@HortiAdvice.dk