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

INFOGROW 2.0™

AN ONLINE TACTICAL TOOL FOR THE GREENHOUSE MANAGER

DANISH
TECHNOLOGICAL
INSTITUTE

InfoGrow 2.0™

Use data to bring you valuable insight into your production.

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 growth on a daily basis.

InfoGrow 2.0™ has log-system that can be customized to your needs. You can register and report all data you need, e.g. application of biological or chemical pest control, product quality or development or production parameters as transfer to another department. When data are logged in InfoGrow 2.0™ you can use them to document and optimize your production.

InfoGrow 2.0™ use data already collected by 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 display data from all your climate zones and use colors to indicates where you have to focus.

InfoGrow 2.0™ Summary view

- 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/m² leaf)	Heating (Wh/m² per day)	Growlight (Wh/m² per day)	Avg. Humidity (%)	Avg. Temp. (°C)	Avg. CO2 (ppm)
Hus 1 A/B - Afd			169/168	178/32	669/640	13.5	3.5	2462	1289	67	21.1	743
Hus 2 - Afd			168/168	245/32	882/640	103.5	4.6	724	2661	74	21	714
Hus 3 - Afd			165/168	232/32	788/32	0	4.1	Last day value: 4364			20.6	530
Hus 4 øst/vest - Afd			166/168	233/32	649/32	0	3.4	6910	2468	71	20.7	337
Hus 5 - Afd			162/168	252/32	800/32	0	4.1	0	2864	73	20.3	518
Hus 6 - Afd			157/168	252/32	883/32	0	4.6	2313	2884	73	19.7	638
Hus 7 - Afd			161/168	241/32	903/32	76.5	4.7	1322	2587	73	20.1	758
Hus 8 - Afd			163/168	248/32	865/32	31.5	4.5	754	2733	74	20.4	649
Hus 9 - Afd			163/168	250/32	854/32	0	4.4	3388	2779	75	20.3	540
Hus 10 - Afd			163/168	249/32	815/32	9	4.2	963	2753	85	20.3	536
Hus 11 - Afd			162/168	249/32	878/32	0	4.6	0	2757	77	20.3	681

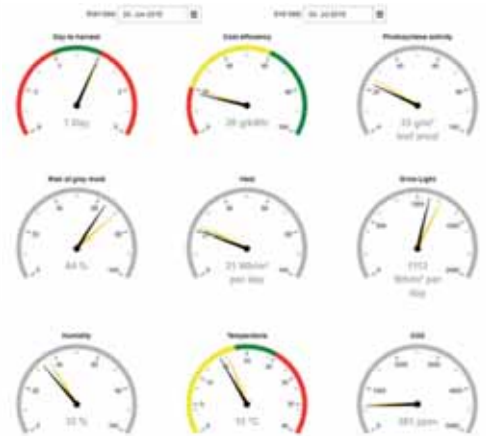**Select information about your production you want to see:**
- Days to harvest
- Cost efficiency
- Energy for heating
- Energy for artificial lighting
- Photosynthesis

InfoGrow 2.0™ Department view

The department view display information's about the relevant growing parameters in an easy, detailed view.

Details for one of your selected parameters for one department!

Details for one department!

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

Advantages using InfoGrow 2.0™

With InfoGrow 2.0™ you gain insights which will make you see new perspectives of your plant production:
- Keep an eye on the photosynthesis and optimize the climate to optimize your production.
- Know your use of energy for all departments and in small time steps without buying expensive sensors.
- Check the production when you see deviations from the norm. This could be open vents or screens in odd situations.
- log-system that can be customized to your needs, e.g. reporting and documentation for application of biological or chemical pest control
- Compare production time with the climate and time your valuable production even better than today.
- You can even export data from InfoGrow 2.0™ and use them in 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.
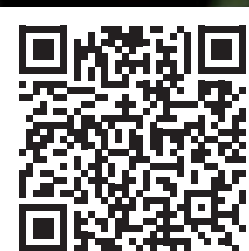
Danish Technological Institute

Danish Technological Institute is a leading research and technology company. We have 110 years of history, more than 10.000 clients and export to more than 65 countries.

We help our customers convert the newest knowledge and technology into value. We are experts in production, materials, life science, business, energy technology, meat research and more.

Center for Plant Technology

The Center for Plant Technology keep the plant in focus. Our expertise concerns optimizing growth, production and utilization of plants and plant-based bio-resources. We work with optimized plant production, plant breeding and biotechnology, high value bio compounds, plant health and diseases as well as cultivation technology for plants and algae. We offer everything from development of novel plants in our biotechnological service laboratory to field trials, where we test new varieties.

Contact:
Jesper Mazanti Aaslyng
Scientific Manager, Plant Technology
+45 72 20 34 44
jeaa@dti.dk

**DANISH
TECHNOLOGICAL
INSTITUTE**