



Intelligent Energy Handling in Greenhouses

In this project we extend the climate control platform developed in the PREDICT project (p. 16) to combine heat extraction with dynamic climate control. The aim is to develop software which efficiently supports the extraction of heat from hot air in greenhouses during the summer, store it in the ground water, and then reuse it during the winter.

Intelligent Energy Handling in Greenhouses focuses on the energy consumption of one particular greenhouse. Researchers and technology companies demonstrate, that it is possible to cut energy consumption by 60%. This can be done by storing surplus energy from the greenhouse in a subsoil aquifer and by fitting intelligent climate control systems. Plants are often grown in very static climatic conditions, when in reality they can survive and thrive under more fluctuating conditions. Plant physiologists will carry out research involving the two main crops grown by the nursery in question, Saint Paulia and Euphorbia Mili, in order to exploit their climate limits in production. Intelligent Energy Handling is also based on weather forecasts, energy prices, energy consumption models, etc.

Hjortebjerg Greenhouse I/S has build a demonstration facility covering 4,000 m² for on going testing of new technologies.

Project period:

2008-2010

Budget:

DKK 26,507,341

Funding:

The Southern Danish Region
European Regional Development Fund

Project Manager:

R&D Specialist Greenhouse production
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Region Syddanmark

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