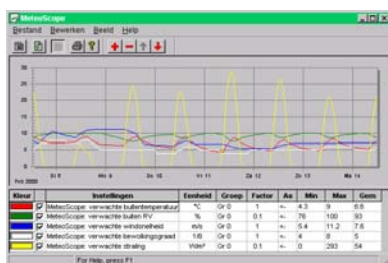


E-NEWS

“Save energy and money with Econaut, and provide for an active plant”

So says Jack Groenewegen, a Dutch tomato grower. An average temperature set point used across several days allows a lower heating setpoint - a principle used by the



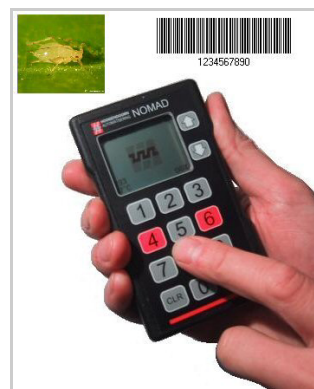
HOOGENDOORN ECONOMIC. “Plants stay completely active, and we achieve about 10% energy savings.”

A medium-sized grower, the Econaut module was installed on their system 3 years ago. Using local weather data from Meteo Consult and plant energy requirement data, their optimum heating line is then calculated.

HOOGENDOORN software advisers have developed a new module including a different ventilation facility. With the vent line moving together with the ECO heating line, vents can now open earlier and while the heating is still on. As a result, plants stay much more active. Overall, the use of Econaut enables Groenewegen to benefit from a special gas supply contract, limiting their consumption. He concludes: “For us, it is always the art of keeping the plant as active as possible, in as efficient a manner as possible. The new ECONAUT version is a great help with this!”

NOMAD, surprisingly versatile

NOMAD, our unique registration system for the wire- and paperless input, processing and presentation of operational data, tracks practically everything occurring in a greenhouse: plant growth, harvest yields, pests and diseases, fertilizer stock, or gas and electricity used.



Each employee is provided with a small handy input unit, the so-called NOMAD key, giving him increased mobility, reducing the occurrence of errors and saving time.

Pests and diseases can be registered quickly and displayed clearly on the central PC site map. This allows quick action and simultaneous pest control registration.

Another key point traceable in NOMAD is employee performance. Input either via their keypad, a barcode scanner or automatic scales and sent directly to the PC, quick insights into employee performance are obtained. Each NOMAD key is individually programmable, including employee question texts and their sequence, adapting the system fully to each site. Data retrieval is possible as tables, graphs or site maps. The Tracking & Tracing facility also links data to a Dynamic Monitoring System (DyMos).

V-DRIVE (variable speed drives) – A revolution in pump control

Thanks to Variable Speed Drives, pump control has become much easier and energy-efficient, resulting in savings into the bargain. While traditionally, both the water circulation and irrigation pump systems could only be run either at full power or switched off completely, the V- Drive gives you the facility to run them at any speed required. No more waste of water resources irrigating plants with excess amounts of water due to pumps running at full speed, when less watering would do just as well, for instance at lower temperatures. ▀



E - NEWS

▶ The V- Drive enables you to pre-set the exact pump speed, supplying plants with just the right amount of water at the time required. The V-Drive can either be controlled via a computer program setting, or using pressure sensors reporting back to the V-Drive system and automating the whole process even further – saving energy, time, water and of course money.

GROWLAB Plantivity A better understanding of your crop

Our new Plantivity is a unique sensor helping growers to better understand their crop - you can see directly how plants react to opening vents or screens, etc.



Employing a lens to which a "representative" plant leaf is fixed and then flashed periodically with a blue light, the Plantivity sensor measures the amount of light the leaf reflects. Data is then sent to the ECONOMIC control system. The sensor works on the principle of a leaf's chlorophyll particles absorbing light, changing it to energy via the photosynthesis process. The light not used is converted to heat and reflected at a different wavelength. This is measured by Plantivity, then calculating how much light is used for photosynthesis, e.g. how strongly the plant is growing. Leaves reflecting most of the light indicate light stress.



A special module converts measured results into information on the amount of light stress. The other GROWLAB plant sensors then establish which growth factor is deficient, and measure plant reaction to changes. Initially, the Plantivity is available for rose and tomato crops, with further crops to follow. ▶

▶ Using a new software module from LetsGrow.com, Plantivity measurements can now also be used for comparing plant data with other sites, or to make them available to plant consultants, via the Internet.

Hoogendoorn supplies automation for the Bergerden project

350 Hectares of ground in the Dutch region of Bergerden are currently being converted into some 40 greenhouse sites. All individual sites in this "Greenhouse Cluster" will then be supplied with centralised water and energy. Hoogendoorn is pleased to announce that we were not only chosen to supply individual systems to each grower, but also the central computer serving the whole region. This central computer is connected to all individual sites, establishing their respective energy needs and distributing water and gas supplies accordingly.



To take full advantage of this centralisation, it was necessary for all sites to decide on one supplier to handle the whole site. Successfully automating several similar clusters, Hoogendoorn are proud to be the clear growers' choice to provide all automation services for Bergerden.

