grodan -

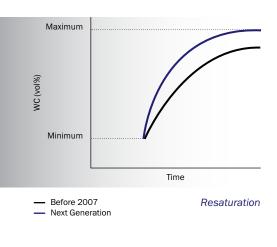


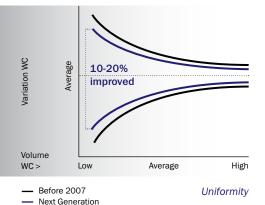
Rapid crop development and continued growing power



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Grodan is introducing a greatly improved version of the popular Grotop Expert slab as one of the company's new generation substrate solutions. The 'Next Generation' slabs are manufactured using new and revolutionary production technology, further reinforcing the advantages of the Grotop Expert for growers.





The Grotop Expert is already well-known for its unique hydrophilic fibres and special open fibrous structure. The new production technology means the slab can be resaturated better and faster than before (see illustration). The distribution of the water content and the EC is also much more even, not only within slabs but also between slabs (see illustration). This gives rise to an increased control range, more roots in the upper layers of the slab, and additional growing power.

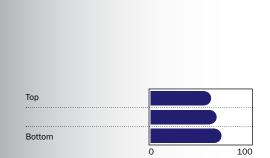
Why choose Grotop Expert?

The new Grotop Expert slab constitutes the solution for growers seeking a substrate with a wide control range, a rapid start to cultivation and maximum growing power throughout the cultivation period.

Maximum quantity and quality

Trials carried out by the PPO (the Research Station for Floriculture and Glasshouse Vegetables in the Netherlands) during the 1990s demonstrate that controlling the water content can increase the yield by 2%.

Field trials prove that the adoption of an optimum water strategy using the new Grotop Expert slab can result in an increase in yield by as much as 2% as compared to the standard Expert slab.



Water distribution

Product specifications Grotop Expert

- Single-season slab
- Special open fibrous structure
- Unique hydrophilic fibre readily absorbs water
- WC control range: 50 to 80% (daytime level)
- Extremely uniform WC and EC distribution throughout the slab
- Good resaturation capacity



The benefits of Grotop Expert

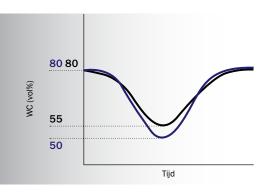
- Rapid rooting and initial crop development
- Increased WC and EC control range
- Increased vegetative growing power



Root development

Rapid rooting and initial crop development

The Grotop Expert's special fibrous structure enables the roots to penetrate the slab quickly and easily, thereby resulting in uniform root development. The substrate contains a visible-increase in the number of roots — and the roots in the middle and lower regions of the slab are also of improved quality. The superior root development results in a stronger, more vigorous plant with increased resistance to disease. The increased firmness of the slab also contributes to an optimum crop result.



Before 2007

Next Generation

Control range

Growing power

Increased WC and EC control range

The Grotop Expert offers you an increased WC and EC control range, as a result of which you can readily vary the water content between 50% and 80% (day level). This increased control range enables you to control the growth of the crop in the required direction during every phase of the cultivation. Moreover the water content can also be adjusted more rapidly. Consequently, in the unlikely event of a larger than recommended decrease in water content, resaturation of the slab to more than 70% is still feasible. This offers you additional assurances, for example in the event of a malfunction of the irrigation system, without detriment to your ability to control the cultivation.



1 Flowering height

- 2 Truss length
- 3 Stem thickness

Increased vegetative growing power

The extremely rapid rooting in Grotop Expert assures you of vegetative growth. As there are more roots in the slab and the roots are distributed more evenly throughout the slab the plants are able to absorb water and nutrients with greater ease. This results in additional growing power from the beginning to the end of the cultivation period. Specific indicators for growing power are stem thickness and flowering height (and in the case of tomatoes, the length of the trusses.

: Proforma, Rotterdam

What else does Grodan offer you?

In addition to the advanced Grotop Expert slab Grodan also offers you:

- Products with KIWA and European Eco-label certification
- Sustainable recycling solutions
- Water-content meters for monitoring and controlling
 WC, EC and temperature
- Gronow: digital advisory program
- Expert and up-to-date growers' advice based on the 6-phase model



All our information and advice is compiled with the greatest possible care and in accordance with the state of the art. However we are unable to assume any liability for the contents – November 2008 $\,$

Grodan B.V.

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Grodan's 6-phase model offers you recommended values – at a glance – for the relevant type of slab and cultivation phase of your crop. You can use these recommended values to make any adjustments to the watering strategy that may be required, thereby further improving your control of the cultivation and assuring you of an optimum crop.