



both by a variety of trials carried out by experimental stations and from experience gained in practice. Compared, however, to the standard Master, the use of an optimum watering strategy with the Grotop Master enables growers to achieve an additional yield of as much as 2%. This is apparent from a number of trials carried out in the past few years by the PPO in Horst, and from a number of practical trials carried out on the most important vegetable crops. In all these trials Grotop Master was used on at least one irrigation zone whilst being steered on the optimum watering strategy by the use of a WCM-continuous meter and Grodan's Gronow digital advisory programme.

Grotop Master constitutes the ideal nutrient substrate for growers who wish to employ water management to achieve an excellent yield of a high-quality crop.

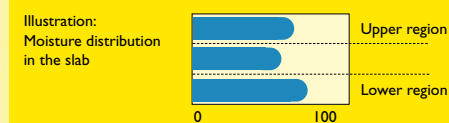
What Grodan can offer you

- A clean and disease-free substrate that neither exudes nutrients or other substances during cultivation, nor locks nutrients in the slab

- Responsible recycling of Grodan slabs and blocks
- Substrate slab with the Dutch Ecolabel Milieukeur*
- Water-content meters – WCM-control (monitoring) and WCM-continuous – for control of moisture content, EC, and slab temperature
- The Gronow digital advisory programme

Product specifications

- Single-season slab
- Available in a variety of dimensions. See www.grodan.com
- Unique twin-layer fibrous structure:
- Denser top layer in comparison with the under layer
- Hydrophilic: Grotop fibres readily attract water
- Thicker fibre
- Moisture-content control range: 50-80% (recommended)
- Excellent distribution of moisture across the depth of the slab



*This is only applicable in The Netherlands and Belgium



Grotop® Master

Maximum controllability for first-rate results

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Grotop Master, Gronow, and WCM-continuous

An inseparable trio for top performance

In combination, Grotop Master, the advanced WCM-continuous measurement system and the Gronow digital advisory programme comprise an extremely successful cultivation system; the trio constitutes your guarantee of first-rate performance.

WCM-continuous: 24-hour-monitoring and control

Grodan's WCM-continuous meter offers 24-hour insight into water content, nutrient concentration and slab temperature.

Gronow: Grodan's advisory programme

Gronow comprises a number of modules, one of which is Gronow Water Management, providing a rapid insight into the plant's root environment.

Maximum controllability for first-rate results

Grodan supplies cultivation solutions that comprise a combination of advice, support and a clean and controllable substrate. This results in the best basis for the cultivation of safe, healthy and high-quality vegetables and plants. The Grotop Master is a new substrate slab for growers who wish to employ professional water management to achieve an optimum, top quality yield.

Grotop is the name of Grodan's new product range – a range that constitutes a revolution in the world of substrates. The unique fibre used by Grodan in this product range exhibits an improved water-absorbent capacity, whilst simultaneously retaining a porous stonewool substrate. The result is a substrate offering improved control of the water content (WC) and the nutrient solution (EC) – together with improved resaturation properties, and the provision of extra vigour to the plants.

The Grotop Master is one of the new slabs in this product range. In comparison with the standard Master, Grotop Master offers improved controllability by virtue of the more homogenous distribution of the WC and the EC. The rapid adaptive capacity of the slab will enable you to achieve the maximum results from your crop. This

Benefits offered to the grower

- Maximum control range
- Control of both vegetative and generative growth
- Strong root development throughout the entire volume of the slab
- Readily resaturated
- Maximum yield and quality



renders Grotop Master the ideal nutrient substrate for growers wishing to employ professional water management to achieve an optimum, top quality yield.

Maximum control range

The newly developed fibre employed in Grotop Master is characterised by its enhanced affinity for water. At the same time, the increased thickness of the fibres ensures that the slab retains a sufficient amount of air. These properties ensure a homogenous distribution of water content (WC) and nutrient solution (EC) in the slab. Grodan's Grotop Master combines this unique fibre with the characteristic twin-layer/structure of the standard Master slab. The Grotop Master offers you a maximum control range of both the

WC and EC. Water contents can readily be varied between 50% and 80%, combined with excellent homogeneity even at lower water contents.

Vegetative and generative control

The control range of the WC and EC provided by the new slab offers growers an opportunity to direct the growth of the crop towards either vegetative or generative growth, as required. The slab enables growers to gradually reduce the WC in the spring and then increase it again during the summer months without problems. Consequently, the rapid adaptive capacity of the Grotop Master will enable you to achieve the maximum result from your crop in every season.

Strong root development

The combination of the slab's denser top layer above the more porous under layer and the new fibre provides for a more homogenous distribution of the WC and EC. This results in the maximum development of roots throughout the slab, the increased root growth being clearly visible. This powerful root development results in extremely strong plants that are more resistant to disease. The perfect development of the roots also imparts the plants with additional vigour – both during the summer, and even in the darker days of the autumn.

Readily resaturated

The powerful root development and the maximum control range are two major

benefits offered by the Grotop Master. The slab, however, also possesses a third special quality: its ready resaturation. Consequently, the risk of the top layer becoming too dry is virtually eliminated. Moreover, the slab offers unprecedented speed and convenience in the restoration of the water content. Trials carried out by the PPO (the Research Station for Floriculture and Glasshouse Vegetables in the Netherlands) in Horst have revealed that even after a rapid fall in water content to below 40%, Grotop Master can readily be restored to in excess of 70%. Although Grodan recommends that growers should never allow WC to fall below 50%, these trials nevertheless demonstrate the excellent resaturation properties of the slab. This offers growers additional reliability during the cultivation of the crop, for example, in the event of a malfunction in the irrigation system – or, in other words, reliability without compromising the controllability of growing.



Maximum yield and quality

Growers following the optimum watering strategy are offered an opportunity to increase their yield. This has been demonstrated over the course of many years,