

How to **boost** your hydroponics

with the **Growcoon**



we make it grow

Purple is the new green: Growcoon for hydroponic cultivation systems

Enhancing cultivation

As the use of hydroponic systems has increased considerably in recent years, growers are looking for additional solutions that will further improve plant cultivation in water.

The Growcoon is now the must-have system for hydroponic cultivation processes. Yielding numerous benefits, it speeds up the cultivation of high quality plants.

Press pot or plug

When working with a hydroponic system, young plants are required that have been raised either in a press pot or in a plug tray. Generally, plugs are strongly favoured, mainly because more growing media are needed for press pots than for plugs which need only be filled loosely.

No limits

The Growcoon combines the stable open net structure of a conventional mesh pot with a loosely filled, non-compacted substrate. This results in a perfect root environment for young plants and leads to faster growth - in some cases shortening growing time by up to three days.

There are no limitations that compromise root growth; no plastics have to be cut off, and the system water has no impairing effects, because the Growcoon does not absorb liquids. The Growcoon, including the plant's root ball, can be disposed of as green waste, or be delivered together with the plant to customers.



Immediate improvements for hydroponics

Better root development

- Fast and unhindered rooting through the open net structure
- The open net structure allows a higher oxygen exchange stimulating a strong root growth

Top plant quality

- Shorter cultivation cycles
- Highly uniform plant growth
- Better establishment of young plants after transferring into the hydroponic system

High flexibility

- Applicable in both Deep Floating System (DFS) and Nutrient Film Technique (NFT)
- Various sizes available to fit in any hydroponic system

High stability

- Perfectly stable plugs under wet growing conditions
- No contamination of the system water by the loosely filled substrate

Impressive efficiency

- Easy handling with automatic dispenser system
- Optimal plug stability for automatic planting and spacing

Approved for organic growing

- Based on biodegradable polymers
- No harmful residues
- No pollution of crops with harmful substances
- Safe for plants, humans and environment
- SKAL listed, complies with the EU regulation for organic cultivation



There is a perfectly fitting Growcoon for each hydroponic system.

To learn more about the Growcoon range for hydroponics please look at www.klasmann-deilmann.com/en/growcoon



Numerous benefits with the Growcoon

Main benefits

- Shorter growing cycles
- Robust plants
- Higher root ball stability
- Lower failure rates - especially with sensitive seedlings

Cultivation

- Compact and solid root ball
- Fast root growth
- Proliferation of hairy roots
- Easy sticking of cuttings due to loosely filled substrate

Logistics

- Compactly stackable
- Large number of Growcoons per box / pallet
- Efficient transport facilitated

Handling

- Fits perfectly into trays due to consistent dimensions
- Easy to remove from the tray
- Easy selection and re-gapping for a quick dispatching process
- No damage of root balls or roots during transplanting

Perfect microclimate

- Designed to fit perfectly into the tray cells
- The conical shape allows an extra oxygen buffer between Growcoon and tray cell
- Open net structure
- Use of loosely filled substrate





Systematic solutions with the Growcoon

What is Growcoon

Growcoon is a biodegradable plug with a stable but flexible open net structure. The Growcoon forms a stable root ball when used in combination with a high-quality seedling substrate.

Effective growing

Growcoon is the optimal system for all types of propagation methods. It proves to be particularly effective in sowing, rooting of cuttings, grafting and growing-on of young plants from tissue culture as well as in vertical farming and hydroponic systems.

Many sizes

The Growcoon is available in many different standard sizes and suitable for all common tray sizes. In addition, there is a special Growcoon range for hydroponics. So the Growcoon can be used in all established propagation systems and with different trays. Moreover, special sizes can be produced on request.

Special substrates for hydroponics

Klasmann-Deilmann has developed a range of growing media especially suitable for the use of Growcoon in hydroponic systems.

Special dispenser

We recommend a dispenser specially designed for the Growcoon. The dispenser is located upstream from the tray-filling machine and places the Growcoons automatically in trays. Alternatively, this can be done manually as well.

Growcoons are delivered compactly stacked in boxes. The dispenser de-stacks the Growcoons automatically and places a full row of Growcoons along the width of the tray.

Advantages of the dispenser:

- Automated de-stacking and placing of Growcoons in the tray
- Designed for different sizes of Growcoons thanks to the interchangeable dispenser unit
- Simple operation
- The dispenser can be included easily in your tray filling line
- High capacity, between 10,000 and 50,000 Growcoons per hour



Combined excellence: Growing Media and Growcoon

Opening up a new era

More and more growers are switching to hydroponics for cultivating various vegetable crops, a trend caused by an increasing demand for safe food and residue-free cultivation. Currently, hydroponic systems are mainly used for growing leafy vegetables and herbs, but applications for other vegetables, for cut flowers and other crops are also being investigated intensively.

Special substrates for hydroponics

Klasmann-Deilmann is the world's leading producer of growing media for commercial horticulture. Based on our experience with all kinds of cultivation systems, our wide substrate range offers tailor-made solutions for the use of Growcoon in hydroponics. All substrates have proven themselves for the cultivation of vegetable young plants, leafy vegetables, herbs and many other crops.





Substrate	Tray Substrate Growcoon	Plug Mix Extra Plus	TS 1 fine 0.7kg 0:17:27	TS 1 fine Organic propagation
Recipe-No.	394	402	380	U48
Composition	<p>Perlite (1 - 7.5 mm)</p> <p>Coir (buffered)</p> <p>White sod peat (1 - 7 mm)</p> <p>White peat (0 - 5 mm)</p>	<p>White sod peat (1 - 7 mm)</p> <p>White peat (0 - 5 mm)</p>	<p>Perlite (1 - 7.5 mm)</p> <p>White peat (0 - 5 mm)</p>	<p>Perlite (1 - 7.5 mm)</p> <p>White peat (0 - 5 mm)</p>
pH-value (H ₂ O)	5.8	6.0	5.7	5.7
Fertilisation (g/l)	0.75	0.7	0.7	none
Extra trace elements	✓	✓	✓	
Wetting agent	Hydro S	Hydro S	Hydro S	
Structure	Fine	Fine	Extra fine	Extra fine
Use for	Vegetable young plants, Ornamental young plants. Ideal for use in combination with the Growcoon system.	Vegetable young plants, Ornamental young plants. Ideal for use in combination with the Growcoon system.	Vegetable young plants, Ornamental young plants. Seedling substrate without nitrogen fertilisation. To be used with nitrogen fertilisers or liquid feeding.	Vegetable young plants, Ornamental young plants. Organic base substrate to be used with organic fertilisers or liquid feeding. Approved by OMRI for organic cultivation.





Disclaimer:

The statements made in this technical information sheet are based on our present knowledge and do not claim to be complete or fully accurate. We reserve the right to make changes. We do not offer any guarantee or accept any liability for individual cases, as all specific circumstances depend on the individual location, storage and growing conditions, which are beyond the reach of our knowledge and influence. The information given must not be considered as a substitute for individual advice. It is neither binding nor does it form part of a contract for the provision of advice or information.

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In addition to Klasmann-Deilmann's International Sales Conditions (for use in US business), please note that you will be charged separately for all duties and taxes at cost.

The Growcoon is a biodegradable product. The Growcoon's natural degradation process begins as soon as it encounters organic substances, that may contain naturally occurring soil fungi and bacteria. The conditions, the Growcoon is exposed to determine the speed and the nature of the degradation process. Various cultivation and process-related factors such as pH, EC, moisture, temperature, and storage can affect the functional shelf life of Growcoon. In order to prevent the natural degradation process from starting during storage, it is absolutely necessary to store the Growcoon in a dry and clean place and protect it from direct sunlight. Temperatures above 40 degrees (104 degrees Fahrenheit) must be avoided. Growcoon is TÜV certified, certificates are available on request.



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