



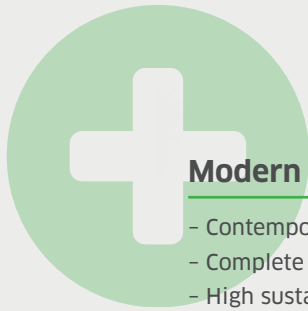
# Bag to the future

**Growbag ADVANCED: Modern, sustainable and high yield**

[www.klasman-deilmann.com](http://www.klasman-deilmann.com)



# The new Growbag ADVANCED



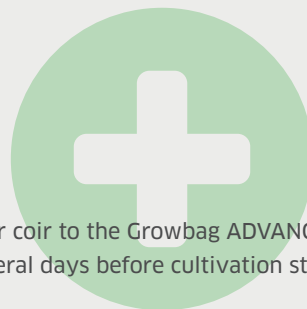
## **Modern and sustainable**

- Contemporary grow bag concept with low coir content
- Complete elimination of rock wool, perlite and peat
- High sustainability due to 100 % renewable raw materials
- Use of a new, purely wood based constituent
- All raw materials of the grow bag filling are fully compostable
- Significantly reduced CO<sub>2</sub> emissions compared to rock wool, perlite and coco



## **Available and efficient**

- Uncomplicated conversion from rock wool, perlite or coir to the Growbag ADVANCED
- No need to pre-swell or rinse the grow bags for several days before cultivation starts, only a one-time moistening is still necessary
- Reliable, year-round availability due to the high proportion of regional raw materials
- Low weight for optimal delivery volume and efficient handling in the nursery
- Water savings possible





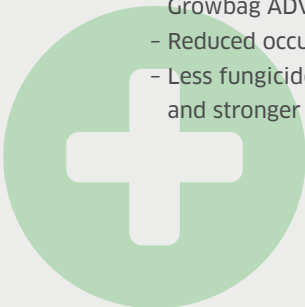
### **Best cultivation properties**

- High air capacity and high pore volume ensure fast and strong rooting right from the start of cultivation
- Optimal drainage and capillarity with excess irrigation
- Very homogeneous moisture in the whole root zone during cultivation
- Excellent rewettability



### **Healthier plants**

- All raw materials with low salt content, therefore no salt stress at start of cultivation
- Reduced cultivation risk due to the low salt content when compared to coir
- Limited pH buffering allows easy and targeted pH control
- In contrast to inert materials such as rock wool and perlite, the raw materials used in the Growbag ADVANCED are microbially active and help to suppress plant pathogens
- Reduced occurrence of 'crazy roots' caused by Agrobacterium rhizogenes
- Less fungicide treatments against root rot since plants develop healthier and stronger overall





# Far more practical than pure theory: Real experience from practice

## Experiences with the Growbag ADVANCED in cucumbers:

- Excellent rooting with continuous formation of white, active roots
- More root mass and significantly stronger, well-branched main roots
- Overall stronger developed plants with faster shoot formation and higher cucumber yield per metre
- Fungicide treatments against root rot was not necessary
- Better and faster drainage
- Compared to coir, more frequent and shorter watering intervals were ideal and a reduction of drip quantities was possible
- No need to pre-swell or rinse the Growbag ADVANCED for several days before cultivation starts

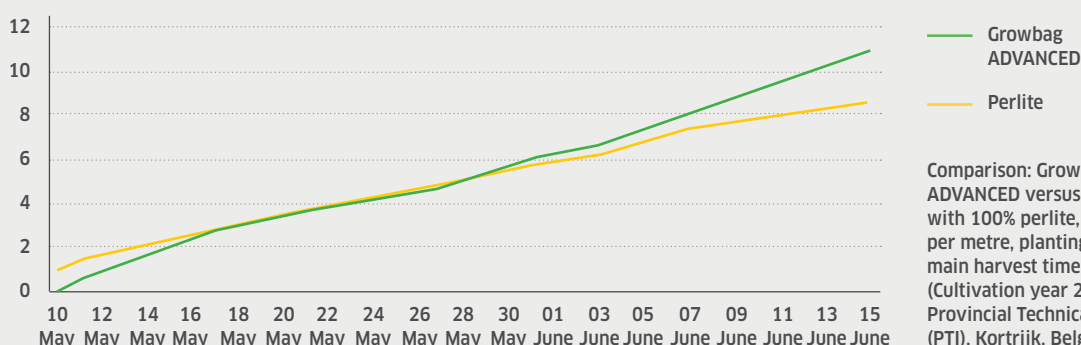


Comparison: Growbag ADVANCED versus grow bags with 100% coir, 2 plants per metre, ungrafted young plants, planting in August (Cultivation year 2021, Vrij Land- en Tuinbouwinstituut VLTi, Torhout, Belgium)

## Experiences with the Growbag ADVANCED in tomatoes:

- Plants in the Growbag ADVANCED developed more vigorously and rooting was considerably stronger
- Faster initial development of tomato plants
- Plants in Growbag ADVANCED showed more stress resistance in drought stress tests
- Better flowering and higher fruit yields than in standard grow bags with perlite

Tomato, cumulative yield of fruits (kg/m)



Comparison: Growbag ADVANCED versus grow bags with 100% perlite, 2 plants per metre, planting in March, main harvest time May - June (Cultivation year 2021, Provincial Technical Institute (PTI), Kortrijk, Belgium)

# Technical Data

## Raw materials

80 % GreenFibre® mix, 20% coir

## Physical properties

(acc. EN 13041, pF 1.0, -10 cm)

### Water capacity:

29 - 34 %-vol.

### Air capacity:

59 - 64 %-vol.

### Total pore volume:

93 %-vol.

### Bulk density (dry):

100 - 115 g/l

### UV stability:

Plastic film 1 year UV resistant



## Dimensions and quantities

### Length, width, height:

1 m, appr. 20 cm, appr. 8 cm

### Filling volume:

20 l (EN 12580)

### Planting holes per metre:

0 - 10, according to customer requirements, pre-perforated, round and square holes possible

### Drainage slots:

Bags available with and without drainage slots

### Quantity per pallet:

196 grow bags

### Pallet size and weight:

120 x 100 cm,  
approx. 850 kg / pallet

## 83% less CO<sub>2</sub>

compared to perlite  
[93.37 kg CO<sub>2</sub>e/m<sup>3</sup>]  
and rock wool  
[93.01 kg CO<sub>2</sub>e/m<sup>3</sup>]

## Product Carbon Footprint

(acc. ISO 14064-1, calculation  
without growbag film),  
Growbag ADVANCED: 16.01 kg CO<sub>2</sub>e/m<sup>3</sup>

## 52% less CO<sub>2</sub>

compared to  
coir [33.29 kg CO<sub>2</sub>e/m<sup>3</sup>]



Learn more  
about Log & Solve

## The ideal combination: Growbag ADVANCED and Log & Solve

Parallel to the Growbag ADVANCED, Log & Solve can be used when converting from grow bags with coir, perlite or rock wool.

Log & Solve is our innovative digital platform that centrally records all relevant crop data. Modern sensors continuously measure substrate moisture and nutrients directly in the grow bag and create automated status reports. Data on humidity, temperature and light already collected in the greenhouse can also be included. Commercial growers can improve the efficiency of their crops with Log & Solve.





# Growbag ADVANCED

**Best yields and perfect sustainability now  
also for strawberries**

- Suitable for everbearers, June bearers and day-neutral varieties
- Excellent results in yield and growth rate compared to cultivation in coir or perlite bags
- Perfect drainage for healthy roots
- Strongly based on local, renewable wood raw materials, therefore less dependent on shortages in coir availability
- Compared to conventional coir bags, no need to pre-swell or rinse the Growbag ADVANCED for several days before cultivation
- Fertigation should be adjusted in the first weeks to allow less but more frequent watering. This keeps the Growbag ADVANCED well saturated and permits perfect plant development for optimal yields









#### 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.



*we make it grow*

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