

GROW SMART  
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GROW GREEN  
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## OUR ROOTS



We at CoirRoots are determined to give our clients the best products possible to maximise their crop yields. We care for our environment and believe our product is one of the most sustainable soil substitutes in the market. We are ISO 9001 and 14001 certified ensuring our clients only get the best organic medium for their growing needs.

Our personnel have over 35 years of experience in the field and are reputed for delivery of sustainable and quality supplies. We pride ourselves in the reliability we provide our customers ensuring their growth cycle goes on smoothly.

## ABOUT US

CoirRoots was born amidst the harsh economic crisis of Sri Lanka that took place in 2019. Realising the need for an export product, a few engineers collaborated to design and execute the production of growbags like no other. Working in the construction industry previously and having worked around continuously optimizing work processes to improve quality and reduce costs, this production seemed like a dream project to work on. Realising the need to have a specialist in the area, the management team then welcomed one of the forefathers of coir products in Sri Lanka with over 35 years' experience in the industry to join the team. In consultation with world best practices a state-of-the-art facility was constructed to deliver the best quality products to our customers.

We have since grown from strength to strength doubling the output capacity in just 4 months to keep up with market demand. Our philosophy of delivering the best quality product within a timely manner at the best price to our customers has been the driving force behind this success.

## WHY IS COIR A GREAT SOIL SUBSTITUTE?



Once expanded at the premises, growbags can hold very high moisture content together with a high air retention capacity. This combination enables the best growth and spreading of plant roots. The substrate of the growbag is ideal to retain fertilizer. This coupled with the high moisture content and naturally occurring nutrients becomes the ideal growth substrate for young plants. The substrate is organic, therefore not treated with chemicals, unlike soil it is also free of any seeds once again optimizing the growth of roots in young plants.

Since substrate is produced in a controlled environment the pH ranges from 5-6.5. Since it's a mechanically controlled process, the perfect growth environment can be created using agricultural technology to improve crop output.

## WHY COIRROOTS?

At CoirRoots we guarantee product quality. Each element that goes into our final product is vigorously tested and produced in a contaminant free environment. Our Quality Team undergoes vigorous training and are provided with quality manuals that are strictly adhered to. The management and staff are qualified engineers focusing on every minute adjustment to be made to ensure optimal end product quality.

Apart from quality we also ensure our workforce have access to equal pay. As a female led organization we ensure that pay is based on skill rather than gender which is not the norm in Sri Lanka. We ensure that our employees have access to financial literacy programs ensuring that their earnings are future proofed.

Furthermore, we take pride in being 100% Sri Lankan sourced and operated. All our raw materials are sourced locally and even the machines used are produced locally ensuring the growth of small local enterprises.

## SUSTAINABILITY



Grow Bags are produced using a waste product of coconut cultivation. Sri Lanka uses a large number of coconuts both for local consumption as well value-added exports. The husk of these coconuts is then processed to form the substrate for new plants to grow. No additives are used during the production of growbags and the disposal of the used bags poses minimal risk to the environment as it remains a 100% organic waste product. 100% bio-degradable bags can be provided on request. As coconuts are cultivated in Sri Lanka for mainly domestic consumption, coconut husk is a readily available product and not the result of overcultivation or exploiting the coconut plant.



## OUR 10-STEP MANUFACTURING PROCESS

### 1. Purchasing of Coconut Husk

Good quality coconut husks are purchased locally and each husk goes through a visual examination as well as random (1 per 1000 husks) chemical testing to ensure the husks are within our expected quality composition.

### 2. Coconut Husk Processing

The Coconut Husk is then milled to extract fibre. Two thirds of the product is material known as Coco Peat and the balance third is fibre. Coco Peat becomes the primary raw material for the soil substitute growth medium. The fibre is discarded to be used for coir fibre ropes, etc. As per clients' orders cocochips will be mechanically cut to the specified size using a cutting machine.

### 3. Washing of Coco Peat

The coco peat also known as pith extracted from step 3 is washed with fresh water to reduce salt content to maximise absorption of water by plant roots.

### 4. Drying

The washed coco pith is sun dried in concrete drying yards to reduce moisture content to the optimal value required to achieve required compaction.

### 5. Sorting

Dried Coir Pith are sorted based on electrical conductivity and moisture level.

### 6. Sifting and Sieving

Sorted Coir Pith is sifted and sieved to remove fine dust particles and extract right sized grains as per growing medium specification.

### 7. Mixing of Coco Peat, Coco Chips & Coco Coir

Sifted coco pith is mixed with coco chips as per substrate specifications, mechanically, to obtain a homogeneous mixture.

### 8. Compaction of Coco Peat

A specific measured quantity of Coco Peat is placed in a mold to press and compact. A hydraulic press is used to achieve the required compaction.

### 9. Quality Testing

Random samples are quality tested at our laboratory to ensure chemical composition is as specified (1 in 20 grow bags).

### 10. Pack and Dispatch

Each bag is individually packed with a batch number and date of manufacture sealed to the bag. The stacked bags are shrink wrapped and packed in cartons ready for shipping.



Extracted Coco Peat

Coco Chips cut according to clients' requirement



Final product before being compressed

Production of the finest raw materials in-house





## GROW BAG TYPES

CoirRoots offers its customers four types of growbags:

1. GB 1 - 100 % Coco Peat
2. GB 2 - 70-80 % Coco Peat and 20-30 % crushed husk\*
3. GB 3 - 60-70 % Coco Peat and 30-40 % crushed husk\*
4. GB 4 - 100 % crushed husk\*

\*Husk chip sizes will vary between 3 - 12mm

We are able to customise and develop Growbags based on customer requirements.

The sizes available for sale are as follows:

Material		Water Holding Capacity (L/Kg)	pH
Coco Peat	Coco Husk		
100%	0%	7.40 (±0.25)	5.5 - 6.5
80%	20%	6.60 (±0.25)	5.5 - 6.5
70%	30%	6.10 (±0.25)	5.5 - 6.5
50%	50%	5.50 (±0.25)	5.5 - 6.5
30%	70%	5.35 (±0.25)	5.5 - 6.5
0%	100%	4.70 (±0.25)	5.5 - 6.5

Material Type	Both washed (Low EC) and unwashed can be used
Size	100x15x10cm   100x20x10cm   120x15x10cm   80x20x10cm   90x15x10cm and we can customise sizes considering the available moulds.
Packing	In plastic bags with pre-made plant holes, and drain hole

