

# Coco Peat versus Peat-Moss

CHARACTERISTICS	COCP PEAT	PEAT MOSS
pH	5.5 – 6.5 The perfect pH for plants (so nolime to increase pH prior to use)	Normally 3.9 – 4.3 (addition of lime is compulsory)
Water HoldingCapacity	9 to 10 times its own volume, but it will not become water-logged and as excess water drains away	3-6 times its own volume depending upon country of origin and quality of product, with a tendency to waterlog
Time to 'TakeUp Water'	Very rapid because Coco Peat (micro sponges) sponge-like structure which have the ability to absorb large quantities of water very quickly	Considerably slower than Coco Peat because peat moss does not have a sponge-like structure but relies on its 'boat shaped' structure of the leaves of the sphagnum moss to hold water but modern harvesting techniques damage this structure
Soil longevity before grower must replace or add product due to degradation and/or shrinkage	Approx. 5 years with the reason being that Coco Peat has a naturally high lignin content (approx 45%) which inhibits bacterial and fungal breakdown and thus allows the Coco Peat to biodegrade much most slowly than traditional peat moss	6 months to 1 year depending upon the country of origin & quality of product

<p><b>Ability to retain Air (oxygen) (AFP)</b></p>	<p>Coco Peat has the ability to retain high AFP, at the same time being able to hold large quantities of water without becoming water-logged</p>	<p>When water is added to peat-moss it tends to reduce the AFP, thereby preventing vital oxygen getting to the roots</p>
--	--	--

<p><b>Shrinkage</b></p>	<p>Due to its high lignin and cellulose structure, it does not shrink and outlives the lifespan of peat</p>	<p>Peat moss shrinks away from the sides of the pot/container and, when water is added, it simply drains down the sides. Also, where plants have to be kept for a long period of time, containers filled with peat moss have to be regularly "topped up" using more material and more labour therefore more cost</p>
-------------------------	---	--

<p><b>Water retention ability</b></p>	<p>Very long, since Coco Peat is composed of cells that both look and act like sponges &amp; will hold 78% with excess water simply draining away. Also, the top 1 cm of the substrate produced with Coco Peat dries quickly and this helps stop moisture evaporation</p>	<p>Peat-Moss has very little ability to retain water and therefore peat moss must be irrigated much more frequently</p>
---------------------------------------	---	---

<p><b>Degree of porosity</b></p>	<p>Excellent—without the addition of any other costly material. Coco Peat normally has 96% pore space and this allows water to drain easily through Coco Peat thus preventing water logging but, at the same time, holding maximum amounts of water</p>	<p>Normally you must add costly coarse material like bark or perlite etc. to achieve a more acceptable porosity</p>
----------------------------------	---	---

	(78%) in the micro sponges, which remains available – at low tensions – to the plants when/as required Also, Coco Peat has no “dry spots”	
--	---	--

<b>If allowed to dry out, will it cap?</b>	Due to Coco Peat’s structure, the sponges remain open and will absorb water very rapidly	Peat moss, which has a high percent- age of “fines” which come to the top of the pot/container, sealing the surface therefore making re-wetting very difficult, unless expensive wetting agents are used
--	--	--

<b>Mixing with sand</b>	For Root Zone mixes (i.e. golf course construction. as little as 10% Coco Peat needs to be used to add the organic content to the Root Zone mix to obtain the required water retention and maximum percolation	Normally 20% peat moss is necessary. However, peat moss forms a “barrier layer” which reduces percolation
-------------------------	--	---

<b>Do we need wetting agent to wet product</b>	With Coco Peat there is no need to use a “wetting agent” because of its unique sponge-like structure	Yes, with peat-moss you need a “wetting agent”
--	--	--

<b>Cation Exchange Capacity (CEC)</b>	Coco Peat has high CEC ratio thus nutrient ions are bound in the molecular structure and are not leached away but are held for release to the plant as required	Normally peat moss has a low CEC ratio unless additives such as perlite are added to help prevent the leaching away of nutrients and ions
---------------------------------------	---	---

<b>Where sold</b>	Worldwide, especially where water retention and preventing evaporation are major priorities	Worldwide
-------------------	---	-----------