



Charcoal Production Practices – BioChar

- To start the process of BioChar production, you need to collect DRY twigs and small branches smaller than 2cm in diameter.
- You have to ensure that these twigs and branches are completely dry. Freshly harvested twigs and branches should be left for a minimum of 3 weeks to dry out. The twigs should be able to easily break/snap when bent.
- BioChar production uses a specialized kiln called a Kontiki Kiln (see image below). Start a small fire in the Kontiki kiln at the centre of the base.
- If the fire starts to produce flames, slowly start adding a layer of the dried twigs and branches on top of the fire, covering the whole base of the Kontiki kiln. The layer should not be thicker than 15cm.
- The layer of twigs and branches should be left to burn until the whole layer starts to turn white.
- Spread the fire evenly across the base of the Kontiki kiln using a long steel rake (for added protection against burns, make sure you use a pair of full-length fire-resistant gloves).
- Then add another layer of twigs and branches on top of the previous layer, again not exceeding 15cm in depth, across the whole based of the Kontiki kiln.
- Repeat the previous 2 steps over and over until the Kontiki kiln has been filled completely.
- Once the final layer has been added to the Kontiki kiln and has reached the white phase of the burning process, quench the whole Kontiki kiln with water.
- Allow the water to penetrate the full depth of the Kontiki kiln and cool the burned twigs and branches completely. There should be no presence of fire/smoke/smouldering embers left over inside the Kontiki kiln after the water has been added.
- The Kontiki kiln is designed with a tap at the base of the kiln. You can now open this tap and either collect the water for fertilisation purposes or you can dispose of the water completely. Allow all of the water to drain from the Kontiki kiln.

- 🔥 Once all the water has drained out of the Kontiki kiln, tip the kiln over and remove the charred twigs and branches onto a sheet of plastic or tarp or a level surface prepared beforehand to allow these pieces to cool down completely.
- 🔥 Once the charred pieces of twigs and branches has been cooled down completely, you now have the following options:
 - While the BioChar is still wet, you can charge (mix) the BioChar with chicken/animal manure or chemical fertilisers of your choice for gardening and planting purposes. **Please Note:** Once you have added your manure or fertilisers to your BioChar, the mixture should be mixed frequently over a period of maximum 4 weeks prior to being used.
 - You can allow the BioChar to dry out completely to be used as a supplement to your animal feeds. You can use up to 30% of BioChar in your animal feeds.
 - You can let the BioChar dry out completely before packing and transporting the BioChar to a Buyer. The BioChar must be completely dry before packaging to avoid mould and rot.

