MANUAL OF JATROPHA CURCAS: A Greengold Plant



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PREPARATION OF ACTIVATED CARBON FROM *JATROPHA CURCAS*

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Jatropha activated carbon is more efficient in the removal of pollutant from air, liquid and soil. The seed coat or the shell of *Jatropha curcas* has high concentration of carbon and can be changed to activated carbon. It can be treated raw and used as adsorbent without converting to activated carbon.

Material needed

1. *Jatropha curcas* seed
2. Drum or burning sink
3. Oven
4. Plastic pail
5. Crusher (wood/iron)
6. Draining tray
7. Distilled water
8. Sieve (100mm mesh)

Procedure

1. Separate the *Jatropha curcas* seed from seed coat and sun dry
2. Burn the dried seed at the burning sink or drum at about for 1 - 2 hours.
3. Soak the charcoal in chemical solution (about 25% dilute Calcium chloride or Zinc chloride) for 12-18 hours to become activated charcoal.
4. Wash the charcoal with distilled water.
5. Spread on tray at room temperature to be drained.
6. Dry in oven at temperature of about 110°C for about 3hours.
7. Crush or refine the activated charcoal with crusher (wood/iron) into sieze of 100mm each.
8. Pack the activated charcoal in plastic.

Application Of *Jatropha Curcas* Activated Carbons

The important applications relate to their use in the removal of odour, colour, taste and other undesirable organic impurities from potable water in the treatment of domestic and industrial waste water, solvent recovery, air purification in inhabited species such as restaurants, food processing and chemical industry, for removal of colour from various types of sugar syrup, in air pollution control, in purification of many chemicals, pharmaceutical and food products and in a variety of gas phase applications along with other inorganics they are used as a catalyst and catalyst support.

Their use in medicine to combat certain types of bacterial are well documented

They are used effectively for isolation and separation purposes. In separation of amino acids from their solutions in acetic acid, activated carbon can be used for separating aromatic acids.