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We can provide technical know-how for manufacturing **corn starch based disposable tableware like plates, bowls, cups, trays** etc. These are made from corn starch blended with a cellulosic filler material like sugarcane bagasse (pulp leftover after pressing of sugarcane stalk), wood flour or wood fiber from waste wood chips produced in the saw mills etc. The main process is mixing corn starch with cellulosic filler, plasticizers and other additives. Then the material is shaped (in a mould) and cured (baked & hardened) simultaneously in a compression moulding press with heated platens and mould. You can start such plant with minimal investment --- just a mixer and compression moulding press (multiday-light) and moulds. Thereafter you can increase production by adding presses. The economics of the product has to be worked out based on local cost of corn starch and suitable cellulosic filler. The addition of cellulosic filler reduces cost of the product, increases strength and most importantly -- substantially reduces water / moisture absorption of the end product making it useful --- **low cost, completely biodegradable, single use disposable tableware that is produced from renewable agricultural resources.**



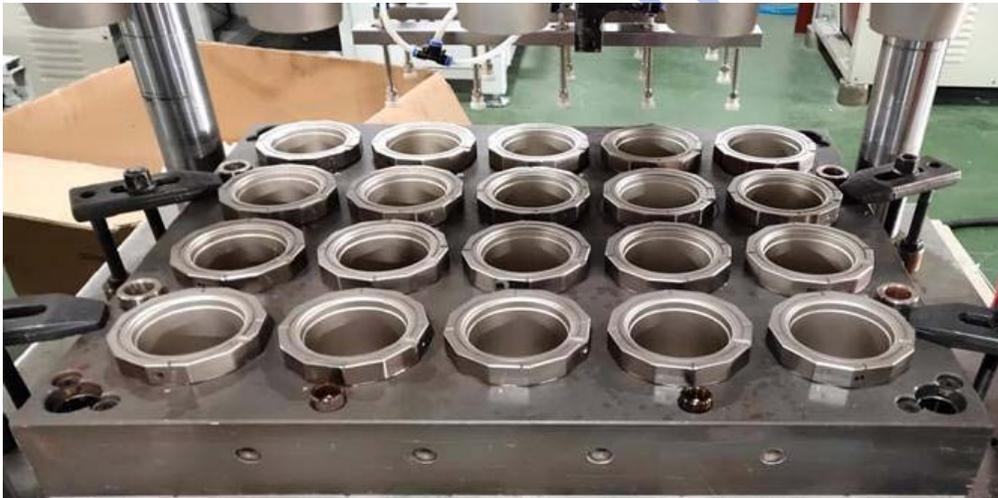
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We can provide you the following technical services –

- Material composition with additives
- Material grades & specifications
- Processing method (mixing & compression moulding)
- Processing parameters
- Technical specifications for mixer and compression moulding press
- Material costing based on local raw material prices
- How to develop and make moulds for products like plate / tray / bowl / cup etc.
- Assist you to select and source equipment from different suppliers

I suggest you start on a small scale – one mixer and one compression moulding press. After a few months when you have mastered the technology, gained processing experience and accessed the market requirements then you can add more number of compression moulding presses and other equipment like material blank preparation, quality control and testing equipment, different moulds for plate / bowl / tray / cup etc. Then you have to decide for example - if you are making plates what will be the size, thickness, weight etc. based on market feedback.



Above photograph shows lower platen of a compression moulding press with moulds for cups. The mixed material blanks of predetermined weight are placed in the mould cavities and the press is closed and material is cured with heat and pressure to form rigid finished product (in this case cups)

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Above photograph shows bowls cured in a compression moulding press being taken out

One can also produce foamed starch products i.e. with tiny pockets of gas which reduces the product density thus reducing weight and material cost. For this one can use a foaming agent like sodium bicarbonate to produce gas which is entrapped in the material and makes tiny gas pockets.

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