

# OPTIMISATION OF BONE CHAR PRODUCTION USING THE STANDARD DEFLUORIDATION CAPACITY PROCEDURE

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**SUMMARY:** The Standard Defluoridation Capacity procedure is utilised to quantify the differences between the differently coloured bone chars, that are obtained in the charcoal packed furnace used in large scale production in Tanzania and Kenya. Highest defluoridation capacities are obtained with black and brown coloured bone char, while grey and white bone chars are the result of poor charring, with deteriorated defluoridation capacity. Maintaining the bone char in black and brown may however introduce problems of discoloration, objectionable taste and smell and elevated salinity. Post-treatment by means mild acidification and water wash would alleviate these side-effects, making it possible to produce a high quality bone char with respect to both the defluoridation capacity and the quality of the treated water.

Keywords: Bone Char; Standard Defluoridation Capacity ; Defluoridation of water; Charcoal; Tanzania.

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