

1086-15-2952 **Ben Sebuufu*** (ben.sebuufu@gordon.edu), 255 Grapevine Road, wenham, MA 01984, and
Tyesha Hall. *Tchoukaillon: A single player Mancala game.*

Many interesting results on two-player sowing games, such as Mancala, have been discovered via brute-force computational analysis; but, a mathematical analysis of these games has proved to be difficult for, primarily, two reasons: the types of permissible moves, while small, produce a great variety of different board states, and the competing strategies between the two players depend on a (not fully understood) balance between short-term gains and the, ultimate, long-term gain of winning the game.

In order to better understand these Mancala type games, we restrict our attention to certain single-player sowing games in which the types of permissible moves are limited, and the number of strategies for a single player is small.

In this poster, we give results on two such restricted single-player games: Tchoukaillon and Tchoukaillon with wrapping. As a sample of some of our results, we prove that in Tchoukaillon the sequence of bins played exhibits a certain regularity, and in Tchoukaillon with wrapping we prove a certain interesting 'negative' result. (Received September 26, 2012)