

**SEED BED PREPARATION AND MULCHING METHODS FOR SUSTAINABLE
TELFAIRIA PRODUCTION IN THE RAINFOREST AGROECOLOGY OF
SOUTHEASTERN NIGERIA**

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ABSTRACT

Seed bed preparation as the post land clearing operation, is crucial as a sustainable soil resource base for crop production in the rainforest agroecology. The study investigated the effects of four types of seedbed preparation (minimum tillage, harrowed flat, bed and ridge making) and three mulching methods (unmulched, surface and soil incorporation) using oil palm fruit fibre (fruit fibre) and multispecies thrash in owerri southeastern Nigeria. Owerri is located on latitude 5^o27¹N and longitude 5^o02¹E. The 4 x 3 factorial experiment was laid in a randomized complete block design with four replicates. Fruit fibre incorporation in beds and harrowed flat seed bed preparations significantly (P<0.05) enhanced the market quality of *Telfairia occidentalis* which was signified by production of heavy healthy leaves and large pods. It also improved the soil fertility at the end of the production cycle. Fruit fibre used either as a surface or incorporated mulch, was superior to thrash in weed suppression and yield of Telfairia. The unmulched seed beds, especially the ridge, produced poor *Telfairia* leaves and pods. Bed and harrowed flat seed bed preparations, when mulched (surface or incorporated) with fruit fibre, significantly (P<0.05) improved the returns on investment to the farmer.

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