

Traditional food preservative plan: The case of Enset fermentation

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Enset fermentation main product, Kocho is a staple food for more than 15 million Ethiopian populations due to some quality attributes. Enset has high yielding potential estimated to range from 17.1 to 33.9 ton ha⁻¹ year⁻¹, excellent caloric and nutrient source, wide adaptability, drought resistant and multifunctional usage. The indigenous knowledge of Shekacho people in Enset fermentation production and the application of “Mandillo” plant (family of Asteraceae, genus: *Crassocephalum*, specific epithet: *Macropappum*) improves these uncommon quality parameters of Kocho. The effect of Mandillo was observed with respect to the control that remarkable qualitative differences like softness, taste, flavor and palatability of Kocho were observed. Mandillo has been recorded to be endemic to Ethiopia found in Beteyu forest, 8°13’N and 38°21’E near Butagira; a herbaceous plant recorded in all transects in Bonga forest. Though Mandillo is not investigated any were, a large number of its family and genus have been identified as potential antimicrobial, antifungal, antioxidant and spices. This family is known as essential oil bearing species.

In the genus which Mandillo is belong; *Crassocephalum* has many uses as food and food preservative. For example *Crassocephalum biafrae* and *Crassocephalum crepidioides* are well adapted to growing in light shade, direct sunlight reported to reduce rate of growth and propagated by cuttings, rarely by seeds. This makes importation of crop into areas where it doesn't already exist difficult and the plants are very sensitive to dry soil. *Crassocephalum* constitutes some 24 known species native to Africa. Many of these species are used widely as food additives or in traditional medicine. Young leaves and shoots of these plants are eaten in tropical Africa. Extracts prepared from this genus exhibit diverse biological activity such as anti-inflammatory, antioxidant, antimalarial, and antifungal effects. For use in traditional medicine, *Crassocephalum* tea is prepared from fresh plants (500 g plant material/L) and consumed three times daily until pain subsides. The ongoing research work at Addis Ababa University in addition to fermentation improvement shows that Mandillo has potential antioxidant and selective microbial activities that inhibit or enhance selectively.

Keywords: Enset; Kocho; Mandillo; *Crassocephalum*; *Macropappum*; Asteraceae.