Microbial nitrosamine formation in palm wine: in vitro N-nitrosation by cell suspensions.

(PMID:36441)

Abstract

The ability of certain species of bacteria and yeasts that usually contaminate fresh palm sap to induce the formation of the carcinogen dimethylnitrosamine from suitable precursors (trimethylamine, dimethylamine, nitrate, and nitrite) was investigated in vitro under neutral and acid pH conditions. In the incubation media containing cell suspensions of each species of test organism, namely, Aerobacter, Micrococcus, Serratia, Saccharomyces, and two unidentified yeasts and the precursors, added in varying concentrations, the presence of dimethylnitrosamine was indicated. The possible role of indwelling microorganisms in the elaboration of the hazardous compound in fermenting palm wine is discussed.