AVAILABILITY AND POSSIBLE IDENTITIES OF TRADITIONAL DYE STUFF FROM THE BARK OF MORINDA LUCIDA AND LEAVES OF COMBRETUM MUCRONATUM

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ABSTRACT

This study was carried out in the United Nations University/West Africa People's Land-Use and Environmental Change (UNU/WAPLEC) demonstration sites of Gyamfiase-Adenya, Sekesua-Osonson and Amanase-Whanabenya with detailed deliberate sampling for floral inventory undertaken in the Gyamfiase-Adenya demonstration site which was divided into four Cells; A,B,C, and D (Fig 1.1). Focus Group Discussions indicated that in each community, a number of plant species are used traditionally as food colours and dyes for clothing and these include *Alchornea cordifolia, Carica papaya, Citrus sinensis, Combretum mucronatum, Lecaniodiscus cupanioides, Mangifera indica, Lonchocarpus cyanescense and Morinda lucida.* Both sexes practice the use of such species for food colouring although females practice this mostly in the household. Food colouring is a household practice which has not as yet been commercialised. Deliberate floral inventorying in the different cells in the Gyamfiase-Adenya site indicated that *Albizia zygia, Bombax bounopozense, Ceiba pentandra, Cola gigantea, Morinda lucida, Rauvolfia vomitoria and Terminalia ivorensis* are left as standard trees *in-situ* on farms in traditional agro-forestry. Out of seven species screened initially as sources of materials for food colouring and dyes of clothing, *Morinda lucida* and *Combretum mucronatum* which were readily available in specific land-use types in the fields, were selected for more detailed chemical analysis. While Combretum mucronatum was readily available in the fallows, *Morinda lucida* was found in each of the land-use types (i.e. farm with annual crops, fallows and tree crop farms). Extracts of the bark of the stem of *Morinda lucida* gave twelve fractions of which three plus a mixture of all the fractions were able to colour clothing yellow; while extracts of *Combretum mucronatum* gave eight fractions of which three plus a mixture of all the fractions gave the required purple colour to cassava to turn it into cocoyam. The absorbance prominent peaks indicated that aurones and chalcones (absorbance typically in the 365nm to 430nm approx. Harborne, 1984) are not the active constituents in the isolated fractions. This may most probably be related structurally to the conjugated dienes or simple aromatic compounds

with absorbance of 222nm in ethanol for isolates from *Combretum mucronatum* and 220nm in ethanol for isolates from *Morinda lucida*

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