

ABSTRACT

Three acylated anthocyanins were found in the tubers of West Indian varieties of the yam (Dioscorea alata. L.). The structure of the major pigment was established by chromatographic, hydrolytic and spectral methods to be cyanidin 3-gentiobioside acylated with ferulic acid. The two minor pigments were also acylated with ferulic acid and their properties were similar to those of cyanidin 3- triglucosides.

Two acylated anthocyanins were isolated in the tubers and vegetative parts of the sweet potato (Ipomoea batatas. Lam.). The chromatographic and spectral data of the pigments indicated that they were dicaffeoylated 5- glucoside, 3- sophorosides of cyanidin and peonidin. *Material used in this work.*

A survey of some tropical and temperate members of the Convolvulaceae family was carried out to determine the nature of the anthocyanin pigments and the general nature of the polyphenolic pattern. Results indicated that an acylated anthocyanin was present in the tropical species Argyreia speciosa and there was some indication of acylation in temperate members of the family. A common polyphenolic pattern was present in both tropical and temperate members with individual differences which suggested that chemical characters would aid in the identification of some members, where classification based on morphological data alone has led to disagreement among taxonomists.