

IDENTIFICATION OF WILD AND CULTIVATED SPECIES OF
PASSIFLORA IN SRI LANKA AND SCREENING OF THESE
PLANTS FOR CYANOGENIC GLYCOSIDES

I Medagoda

Central Agricultural Research Institute, Gannoruwa.

Collection of forty accessions of the genus Passiflora were made from several localities in Sri Lanka, and keys were constructed for identification of species and cultivars.

Leaves of the Passiflora collections were screened for cyanogenic glycosides using the alkaline picrate paper technique. Results of this survey show that there are considerable variations in the cyanogenic glycoside content of the different species.

Distribution of cyanogenic glycosides in different plant parts such as leaves, stems, tendrils, floral parts, fruits and roots of the most extensively cultivated form of P. edulis f. flavicarpa was studied. Seeds, juice and pollen grains were relatively free of the HCN releasing enzymes and their substrates; all the other plant parts contained relatively larger amounts of the glycosides compared to mature parts.

Quantitative analysis of cyanogenic glycosides in leaves from eight species using the alkaline titrate method showed that P. quadrangularis (138 ppm) contained more cyanogenic glycosides than Manihot var. Mu 51 (110ppm) while P. edulis f. flavicarpa (61 ppm) and P. edulis f. edulis (8 ppm) had moderate and small quantities of glycosides.