

**A STUDY OF THE SOLASODINE CONTENT IN DIFFERENT  
SPECIES OF *SOLANUM* IN SRI LANKA**

A PROJECT REPORT PRESENTED BY

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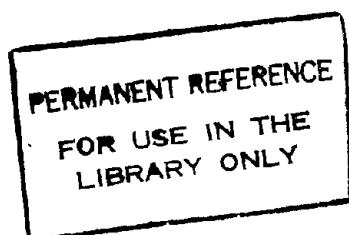
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# A STUDY OF THE SOLASODINE CONTENT IN DIFFERENT SPECIES OF *SOLANUM* IN SRI LANKA

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Aim of the study described in this report was to evaluate an appropriate method to isolate the solasodine from *Solanum xanthocarpum* and to develop a method for analysis of solasodine and apply the method for analysis of solasodine in different species of *Solanum* to monitor the solasodine content.

A recently developed hydrolysis technique employing a two-phase system was used to extract the solasodine from the plant material. The technique was used in order to prevent the losses of aglycone, which usually occur during conventional method of hydrolysis of *Solanum* glycoalkaloids. The two-phase system consists of an aqueous acid phase, in which the glycosides are hydrolysed and an immiscible non-polar organic phase which serves as a protective phase for the aglycone solasodine. Using this technique quantitative recovery of solasodine, after simultaneous hydrolysis of *Solanum* glycoalkaloids was obtained.

*Solanum xanthocarpum* and *Solanum melongena*, which are commonly used for the preparation of Ayurvedic drugs were selected for determination of solasodine content. Solasodine content was determined quantitatively using colorimetric method.

Using this method, the solasodine content of *Solanum xanthocarpum* and *Solanum melongena* samples analysed were found to be 2.51% and 0.90% (w/w) respectively.

