

PHYTOCHEMICAL SCREENING OF TANNIN BEARING PLANTS

Z. A. M. Faizal, A. A. L. Gunatilaka, S. Sotheeswaran
(Department of Chemistry, University of Peradeniya)

and

S. Balasubramaniam
(Department of Botany, University of Peradeniya)

The leather industry requires large amounts of tannins. The demand for tanned leather and consequently the demand for vegetable tanning extracts will increase in the future. There is also a good export market for vegetable tanning extracts. In view of this, a phytochemical screening of tannin bearing plants growing in different parts of Sri Lanka has been undertaken.

Several plants belonging to the plant families Ariceniaceae, Combretaceae, Leguminosae, Myrsinaceae, Pteridaceae, Rhizophoraceae, Rubiaceae, Sonneratiaceae, and Tamoricaceae have been screened for tannins. Nine out of the thirty specimens screened had more than twenty percent (dry plant weight basis) tannins which were highly water soluble. Table I gives the names of these tannin-rich plants.

TABLE I

Plant Name	Plant Part	%Tannin	%Water Solubility
COMBRETACEAE			
<i>Lumnitsera racemosa</i> Willd.	bark	22	100
<i>Terminalia chebula</i> Retz.	fruits	39	97
LEGUMINOSAE			
<i>Acacia leucophloea</i> (Roxb.) Willd.	bark	25	100
<i>Cassia auriculata</i> L.	bark	34	93
—Do—	leaf	29	100
MYRSINACEAE			
<i>Aegiceras corniculatum</i> (L.) Blanco	bark	24	80
RHIZOPHORACEAE			
<i>Ceriops tagal</i> (Perr.) C. B. Rob.	bark	35	91
<i>Rhizophora apiculata</i> Bl.	bark	28	100
RUBIACEAE			
<i>Scyphiphora hydrophyllaceae</i>	bark	25	100

ACKNOWLEDGEMENT: We thank the National Science Council of Sri Lanka for a grant.

References:

1. A study on Vegetable Tanning Extracts in eight selected export markets, International Trade Centre, UNCTAD 1971, Geneva.