

**B-28 : CHARACTERIZATION OF SESAME SEED STORAGE  
PROTEIN BY ELECTROPHORESIS TECHNIQUES**

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Sesame (*Sesamum indicum*), as one of the most promising plant protein and oil sources, is an important crop in Sri Lanka. Therefore it is important to characterize sesame proteins to evaluate genetic variation among the accessions stored in Plant Genetic Resources Centre (PGRC). This study was conducted at National Institute of Agrobiological Resources, Tsukuba, Japan to develop methodologies to characterize stored proteins of sesame and to extend the application of the techniques for other crop species in PGRC.

The sesame seeds obtained for this study included 6 accessions from Nepal, 27 accessions from Japan and 4 accessions from Sri Lanka. Seed extractions of these accessions were analysed by SDS-Polyacrylamide gel electrophoresis (SDS-PAGE), Alkaline urea polyacrylamide gel electrophoresis (Alkaline urea-PAGE) and Two dimensional polyacrylamide gel electrophoresis (2D-PAGE).

Three bands of acidic sub-unit (MW 32,000-35,000) and 2 bands of basic sub-unit (MW 23,000-25,000) were observed and this was similar in all varieties analyzed by SDS-PAGE.

Five to six bands were identified and varietal differences were clearly observed by Alkaline urea-PAGE.

2D-PAGE revealed 4 to 5 main acidic sub-unit spots and varietal differences were observed among main spots.