

## CHANGES IN THE CARBOHYDRATES OF GERMINATING MUNGBEAN

Jaanaki Gooneratne\*, Gamini S. Jayatilake\*

Siromi Samarasinghe\*\*, K.T.D. de Silva\*\*

\*Ceylon Institute of Scientific and Industrial Research, Colombo 7

Dept. of Chemistry, University of Sri Jayewardenepura.

Four varieties of mungbean (*Vigna radiata*) were germinated at 30°C for a period of 48 h. The changes in the composition of methanol extractable sugars and the content of starch and dietary fibre were studied.

The results revealed that low molecular hydrophilic fraction increased after 48 h. germination (on dry basis) by 5.5, 8.7, 8.0 and 12.2% for MI 4, MI 5, T 77 and T 51 varieties respectively. Flatulence causing oligosaccharides such as raffinose, stachyose, present in the ungerminated legume (Gooneratne et al 1986) were hydrolysed to its monomer sugars after 36-48 h. germination. Fructose, glucose, myo-inositol and sucrose were quantitatively identified by GC techniques (as TMS and alditol acetate derivatives). A major unidentified peak was also present. Galactose was not detected.

The starch and dietary fibre content were assayed by enzymatic methods. A significant decrease in the starch content after 48 h. germination was observed.