

SECTION B

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PRELIMINARY STUDIES ON LEAF PROTEIN CONCENTRATE

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Proteins were extracted from Winged beans, *Psophocarpus tetragonolobus* (L.) DC leaves. Sri Lankan Selection (SLS 40) was used since it has profuse leafy growth. The decolourisation of leaves was attempted by solvent extraction and among different solvents ethanol gave the best results.

The off-white coloured leaf protein concentrate (LPC), obtained after centrifugation was pressed well to reduce the amount of water. The press-cake with the moisture content of 55% was preserved at room temperature, using 10% salt as a preservative.

The LPC consisted on a dry weight basis 59.73% crude protein, 6.13% crude fibre, 5.40% ash and 1.71% crude fat.

The trypsin inhibitor activity in the LPC was 7.95×10^3 trypsin units inhibited/g, but it was found that it could be destroyed by heat treatment for twenty minutes. The *in vitro* digestibility of protein concentrate amounted to 87.36%.

The high protein content and the high *in vitro* digestibility suggest the use of LPC in animal feed as well as incorporating into food formulations.