

COMPOSITION OF POLYSACCHARIDES OF WINGED BEAN SEEDS
(*PSOPHOCARPUS TETRAGONOLOBUS* (L) DG)

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Winged beans (WB) contain about 25-28% polysaccharides. These polysaccharides could play an important role in determining the wider acceptability of WB via their effect on cooking properties and texture.

The five varieties of WB analysed, (SLS-1, SLS-44, SLS-3, SLS-6, TPT-1) showed the presence of starch ranging from 0.95% in SLS 1 to 4.7% in SLS 44. The non-starchy polysaccharides were isolated by removing proteins and starch with phenol/acetic acid/water and dimethyl sulphoxide, respectively.

Composition of the polysaccharides clearly indicates galactans (46% - 56%) to be the predominant polysaccharide in the WB. Substantial arabinose (5 - 7%) and small quantities of xylose, and rhamnose were also found, indicating heterogeneity in the galactan. The presence of substantial amounts of uronic acid suggests further heterogeneity in the galactan chains and/or the presence of independent pectic fraction.