POTENTIAL OF BAMBARA GROUNDNUT (*VIGNA SUBTERRANE A* (L.) VERDC.) STARCH AND NON-STARCH POLYSACCHARIDES AS NEW FOOD INGREDIENTS

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Bambara groundnut (*Vigna subterranea* (L.) Verdc.) [BGN] is an underutilised, easy-to-cultivate legume seed which is widely grown throughout tropical Africa, Indonesia, Malaysia, India and Sri Lanka. As found in several studies, BGN has a fairly high carbohydrate content ranging from 57.9 – 63.5 g/100 g dry weight, making it a potential source of starch and non-starch polysaccharides (NSP). Starch and NSP perform several important functions in foods such as gelling, emulsion stabilisation and thickening. BGN starch granules show characteristic strong peaks at 15°, 17° and 23° 2θ typical of C-type starch common to legumes. The C-type starch is more resistant to digestion but differ in their reflection intensity. NSP are the non-digestible counterparts of starch, with dietary fibre comprising the major portion of NSP. The addition of dietary fibres to food products has been widely driven by the high demand for value-added and functional foods. The fractionation of BGN into starch and NSP fractions for use in food applications and/or as functional ingredients could address the need for better utilisation of this under-valued crop, and as a result increase its market value.