

The Effects of Different Amounts of Additional Moisture on the Physical Properties of Cow Pea (*Vigna unguiculata* (L.) Walp.) Extrudates

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Abstract : Even though legumes possess high nutritional value and have a rather high protein content for plant origin products, they are underutilized mostly due to their lengthy cooking time. To increase the presence of legume-based products in human diet, new extruded products were made of cow peas (*Vigna unguiculata* (L.) Walp.). But as it is known, adding different moisture content to flour before extrusion can change the physical properties of the extruded product. Experiments were carried out to estimate the optimal moisture content for cow pea extrusion. After extrusion, the pH level had dropped from 6.7 to 6.5 and the lowest hardness rate was observed in the samples with additional 9 g 100g⁻¹ of moisture - 28±4N, but the volume mass of the samples with additional 9 g 100g⁻¹ of water was 263±3 g L⁻¹; all samples were approximately 7±1mm long.

Keywords : cow pea, extrusion-cooking, moisture, size

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