

Centro de Desarrollo de Productos Bióticos



BIOCHEMICAL EVALUATION OF PROTEIN FRACTIONS FROM PHYSIC NUT (JATROPHA CURCAS L.)

ABSTRACT

J. curcas seed proteins were fractioned according to the Osborne method and some biochemical properties were determined for these fractions. Glutelins (378 g kg–1protein) and globulins (201 g kg–1 protein) were the main components. Albumins and prolamins were the minor components. Protein digestibility was highest in glutelins and globulins with values of 81 and 80% respectively.

Electrophoresis analysis showed that globulins and glutelins exhibited similar polypeptide profiles. Electrophoresis patterns suggested that there could be a structural relationship among 2S, 7S and 11S storage proteins from plant sources. According to the FAO/WHO reference, the protein fractions had acceptable levels of most of the essential amino acids, but its globulins and glutelins were low in lysine and tryptophan.

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Autores: L. Peralta-Flores, S. Gallegos-Tintoré, J. Solorza-Feria, G. Dávila-Ortiz, L. Chel-Guerrero, A. Martínez-Ayala*

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