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Abstract Book

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STUDY ON THE FUNCTIONAL CHARACTERISTICS OF SIEVED IRANIAN CANOLA MEAL (BRASSCIA NAPUS) WITH AIM OF USING IN THE FEED AND FOOD. I: FIBER COMPOSITION

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The Iranian Government has focused on the production of canola in a 10-year project. Canola meal has invaluable protein content in food and feed. High quantity of Non Starch Polysaccharides (NSP) is one of the most important limiting factors to use. Screening experiment was designed to determine the suitable products in viewpoint of recovery percentage and gross cost. Cellulose, hemi cellulose, total NSP (soluble and insoluble) with constituents' sugars of three selected products of the first stage was quantified. The results showed that with increasing of mesh number, recovery percentage significantly decreased but gross cost increased. To select the most efficient mesh number among the selected products obtained from sieves of 16, 18 and 20, chemical composition was done. Although there is no significant difference among protein content of sieved products, but the value of protein unit increased significantly. The mean content of insoluble NSP was 85.1 % of canola meal weight. After glucose and arabinose, galacturonic acid had the highest content in the insoluble part. Arabinose and galactose included the highest content in soluble part. The mesh number 16 was selected for following experiments. Results showed that insoluble NSP was the highest part of fiber compounds in canola meal.

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