Effect of Processing Variables on Soy-Millet Extrudate Forcomplementary Food

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Abstract

Extrusion process is novel, versatile and contemporary food processing technology. Current study was conducted on soy and sorghum blends in different ratios SS36 (36:64), SS40 (40:60), SS44 (44:56) and SS48 (48:52) to make use in complementary foods. Soy-sorghum blends were processed in pilot scale single screw extruder. Processing conditions were screw speed 487 rpm, feed rate 160 kg h^{-1} and downspout temperatureof 95^{o}C.Specific mechanical energy, moisture content and bulk density were considered as independent variables in this study. Specific mechanical energy correlated negatively with soy content in blend. Bulk density of extrudates was influenced by specific mechanical energy. Bulk density and specific mechanical energy were negatively correlated. Low bulk density was the desired characteristic to make better grain flour to be used in complementary foods.

Key words: *Bulk density, Sorghum,Soybean, Specific mechanical energy*.