Abstract

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Properties of roasted Zerun wheat

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Abstract

Properties of roasted Zerun wheat were investigated in the moisture range from 8.80 % to 23.40 % wet basis. Mechanical properties were evaluated by examining the effect of moisture content upon the grain rupture force, energy and Weibull parameters. Length, width, thickness, porosity and angle of repose increased nonlinearly from 6.09 to 6.36 mm; 4.17 to 4.18 mm; 2.66 to 2.78 mm; 37.71 % to 39.09 % and 33.02° to 37.90°, respectively when moisture content increased. The Weibull distribution fits the data for rupture force and energy. The Weibull modulus and scale parameter for rupture force varied between 3.88 and 6.20; 26.61 and 44.24N, respectively. The Weibull modulus for energy increased from 2.15 to 3.24 with increased in moisture content. Measured mechanical properties of grains showed that the brittleness and fragile structure of the roasted grain gradually lost its characteristic crispiness and become soft and ductile above 13.78 % moisture content.

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Biography

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