



DIMENSIONAL AND AERODYNAMIC PROPERTIES OF GLOSA HYBRID WHEAT

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ABSTRACT

In post-harvest operations the physical characteristics and aerodynamic properties of grains and seeds are important. The objective of this paper was to evaluate the dimensional and aerodynamic properties of GLOSA hybrid wheat. Geometrical mean dimensions and aerodynamic properties were calculated, based on the measurement of 1000 grains. The moisture content of wheat was 12.5%, with a 40 – 43 g per 1000 grains and hectoliter mass (HLM) of 76 – 79 kg/hl. The mean value for length was 6.10 mm, the width was 3.02 mm and the mean thickness was 2.58 mm. The results show a 99.70% frequency of dimensions between the three-standard deviation of the mean. The theoretical terminal velocity of 11.5 m/s is closely related to the experimental value of 11.9 m/s. The obtained data can be used for machine settings in conveying, sorting, or cleaning processes of grains.
