

Title Effects of Drying Air Temperature and Humidity on Stress Cracks and Breakage of Maize Kernels
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Abstract

Samples of a single commercial maize hybrid were dried in a thin-layer dryer at four different air temperatures (40, 60, 80 and 100°C) and two levels of humidity (air saturation temperature of 5 and 25°C). The dried samples were subject to stress crack analysis and, after a tempering stage, were tested for breakage susceptibility. Stress cracking and breakage susceptibility both increased with drying temperature. Air humidity had no significant effect on either measure but higher drying air humidity resulted in a much longer drying time at the lowest air temperature (40°C).