

Moisture Content Gain of Raw Coffee Beans at Constant and Alternated Temperatures and Different Equilibrium Relative Humidities

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SUMMARY

The aim of this work was to study the moisture percentage gain (wet basis) of raw coffee beans during storage and transportation. Coffee beans were submitted to different conditions of equilibrium relative humidity (ERH, 80, 87, 95%) at a constant temperature of 25°C and alternated temperatures of 14 (night time) and 25°C (day time). The results suggest that the moisture gain is faster at the alternated temperatures than at constant temperature. The moisture gain percentile of 80, 87 and 95% at the alternated temperatures was 16, 18 and 23% higher than at constant temperature, respectively. The moisture gain of constant and alternated conditions was described by linear and second order polinomial equations, respectively. Moreover, the difference between one or another condition is statistically significant according to Tukey test at 5%. This difference is mainly due to condensation, which takes place during alternate temperature changes.